WestVirginiaUniversity®

GRADUATE
2015-2016 ACADEMIC CATALOG

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University Information

General Information - West Virginia University

West Virginia University (WVU) was founded in 1867 as a result of the 1862 Land-Grant Act, otherwise known as the Morrill Act. As the state's flagship, land-grant university, WVU's mission reflects its dedication to serving the state and citizens of West Virginia through access to higher education, research and scholarship, and comprehensive health sciences. WVU and its divisional campuses enroll approximately 32,000 students, who represent all 55 counties of West Virginia, 50 states and the District of Columbia, and nearly 100 other countries. West Virginia University's educational programs are accredited by the Higher Learning Commission (http://www.ncahlc.org/component/com_directory/Action,ShowBasic/instid,1677). Many West Virginia University programs hold specialized accreditation.

WVU's main campus in Morgantown, WV, provides high-quality programs of instruction through 15 colleges and schools and offers over 190 degree programs at the baccalaureate, master's, doctoral, and professional levels. WVU's Morgantown facilities are built on more than 1,000 acres in Morgantown and include several buildings on the National Register of Historic Places. The Robert C. Byrd Health Sciences Center has a campus in Morgantown, as well as campuses in Martinsburg and Charleston, WV.

WVU also has two divisional campuses. Potomac State College of West Virginia University, situated in West Virginia's Eastern Panhandle in Keyser, offers associate and baccalaureate degree programs and serves both residential and commuting students. The West Virginia University Institute of Technology is located between Charleston and Beckley in Montgomery, WV, and serves the region and the state by offering baccalaureate degree programs.

The WVU Extension Service has an office with a faculty presence in all of West Virginia's 55 counties. WVU operates experimental farms and forests throughout the state, in addition to the state 4-H Camp and Lifelong Learning Center at Jackson's Mill near Weston, WV (http://jacksonsmill.ext.wvu.edu).

Visit About WVU (http://about.wvu.edu) for updated WVU facts and achievements.

Health Sciences Center

The West Virginia University Robert C. Byrd Health Sciences Center has five schools - Dentistry, Medicine, Nursing, Pharmacy, and Public Health. Undergraduate and graduate students learn on our three campuses in Morgantown, Charleston, and Martinsburg.

Academic home to more than 1,000 faculty members, the WVU Health Sciences Center is committed to education, research, service, and patient care. The five health schools share a common goal: to educate the next generation of healthcare providers, biomedical researchers, and health policy leaders for West Virginia.

HEALTH SCIENCES CENTER MISSION

The mission of the Health Sciences Center is to improve the health of West Virginians through the education of health professionals, through basic/clinical scientific research and research in rural healthcare delivery, through the provision of continuing professional education, and through participation in the provision of direct and supportive healthcare.

Visit the Robert C. Byrd Health Sciences Center website (http://home.hsc.wvu.edu) for up-to-date information.

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The Mission of West Virginia University

As a land-grant institution in the 21st century, West Virginia University will deliver high-quality education, excel in discovery and innovation, model a culture of diversity and inclusion, promote health and vitality, and build pathways for the exchange of knowledge and opportunity between the state, the nation, and the world.

INSTRUCTION

The University has 15 colleges and schools that offer over 190 degree programs at the baccalaureate, master's, doctoral, and professional levels, as well as numerous certificate programs.

RESEARCH AND SCHOLARSHIP

As West Virginia's flagship research institution, WVU undertakes scholarly activity that addresses the challenges most critical to today's world and the practice of multidisciplinary research. WVU is classified as a Research University (High Research Activity) by the Carnegie Foundation for the Advancement of Teaching.

SERVICE

West Virginia University's land-grant mission underscores its obligation to serve the public and the state of West Virginia by promoting economic development, enhancing the well-being and the quality of life of the people of West Virginia, and increasing opportunities for the citizens of the state through workforce education, lifelong learning, and outreach to every county.

West Virginia University is the only institution in West Virginia – and one of only 6% of institutions nationwide – to earn the Carnegie Foundation for the Advancement of Teaching "Community Engagement Classification."

WVU's dedication to its service mission is manifested through its instructional programs, educational outreach, initiatives and centers, and through four structures that engage external constituencies and support public service.

Economic Development

The Office of Research and Economic Development assists WVU researchers in advancing their results and putting that knowledge to work improving lives. The research enterprise of West Virginia University is diverse, richly talented, progressive, and focused on the goal of making people's lives better in the highest tradition of an American land-grant institution of higher education.

Well-being and Quality of Life

The Robert C. Byrd Health Sciences Center advances the health of West Virginia's residents and addresses health challenges that face the state and the nation. In addition to the Health Sciences Center in Morgantown, the Charleston Division of the WVU School of Medicine is located in the state capital and the Eastern Division of the HSC in Martinsburg provides community-based education in health sciences in the nine-county eastern panhandle of West Virginia.

Outreach

The Smith-Lever Act of 1914 created a Cooperative Extension Service for each land-grant institution. The purpose of the Extension Service was to disseminate the findings of the universities' agricultural stations and provide training and programs on home economics and other practical subjects. WVU has sustained its commitment to the state by supporting an Extension Service office with a faculty presence in all of West Virginia's 55 counties, staffed by faculty county agents.

The educational programs and initiatives of the WVU Extension Service focus on service to the state and exemplify West Virginia University's commitment to the public good by connecting the knowledge and research of WVU with citizen and community needs. The Extension Service's programs are driven by four major initiatives: (1) 4-H youth development; (2) family and health; (3) agriculture and natural resources; and (4) community, workforce, and economic development.

Commitment to Diversity, Equality, and Inclusion

West Virginia University is committed to ensuring that all persons, including women, people of color, persons with disabilities, veterans, and persons of different religions, sexual orientations, ages, and international, ethnic, and economic backgrounds have the opportunity to benefit from the programs and services the University offers. The University helps students, faculty, and staff study and work in a climate of academic freedom and social responsibility, and develop the skills, knowledge, and self-esteem necessary to contribute positively as world citizens.

In keeping with this commitment, members of the academic community are expected to demonstrate civility and mutual respect for all persons, understanding and appreciation for all persons, to express that perspective in every dimension of the institution's life and mission, and to work cooperatively, representing not only the interests of their own groups but also those of the wider community.

Individuals believing they may have been illegally discriminated against by West Virginia University may file a complaint with the Division of Diversity, Equity, and Inclusion (http://diversity.wvu.edu).

Office of Accessibility Services

The Office of Accessibility Services (http://accessibilityservices.wvu.edu) is dedicated to helping students achieve their academic goals regardless of any physical, learning, psychological, sensory, or other documented disability. West Virginia University's process for providing disability-related accommodations follows guidelines of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, and current case law.

Commitment to Assessment

West Virginia University conducts comprehensive assessment of student learning across all campus locations and online offerings. Continuous improvement of student learning is faculty-driven, conducted at the course, program, and institutional levels, and grounded in the work of the

Undergraduate Council, the Graduate Council, and the University Assessment Council (UAC). UAC members from the WVU Morgantown campus, the West Virginia University Institute of Technology, and Potomac State College align assessment with the WVU mission and strategic plan and oversee assessment of the General Education program. The Council works to strengthen the effectiveness of assessment across all programs by:

- Facilitating faculty professional development in assessment
- Providing peer consultant teams to work with departments to enhance their assessment planning and reporting
- Compiling supporting documentation and evidence of the assessment work at WVU
- Serving as an institutional-level clearinghouse for assessment best practices.

In this section:

Governor of West Virginia

- Earl Ray Tomblin, *Governor*

West Virginia Higher Education Policy Commission

- Paul L. Hill, *Chancellor, Charleston*
- Bruce Berry, *Chair, Morgantown*
- Jenny Allen, *Vice Chair, Shepherdstown*
- Kathy G. Eddy, *Secretary, Parkersburg*
- Michael J. Farrell, *Huntington*
- Kay H. Goodwin, *Ex-Officio, Cabinet Secretary, Department of Education and the Arts, Charleston*
- John Leon, *Fairmont*
- Michael J. Martirano, *Ex-Officio*, *State Superintendent of Schools*
- Clarence Pennington, *Ex-Officio, Chair, WV Council for Community and Technical College Education, Martinsburg*

West Virginia University Board of Governors

- James W. Dailey II, *Chair, Martinsburg*
- Thomas V. Flaherty, *Vice Chair, Charleston*
- Ellen S. Cappellanti, *Secretary, Charleston*
- David B. Alvarez, *Bridgeport*
- George Capel, *Student Representative, Morgantown*
- Robert K. Griffith, *Faculty Representative*, *Morgantown*
- J. Thomas Jones, *Morgantown*
- Raymond J. Lane, *Menlo Park, CA*
- Diane Lewis, *Morgantown*
- Dixie Martinelli, *Classified Staff Representative*, *Morgantown*
- William O. Nutting, *Wheeling*
- Andrew A. Payne III, *Charleston*
- Edward L. Robinson, *Charleston*
- J. Robert "JR" Rogers, *Hurricane*
- Richard Turton, *Faculty Representative, Morgantown*
- William D. Wilmoth, *Wheeling*

The WVU Board of Governors is the governing body of WVU. The Higher Education Policy Commission in West Virginia is responsible for developing, establishing, and overseeing the implementation of a public policy agenda for the state's four-year colleges and universities.

West Virginia University is an Equal Opportunity/Affirmative Action Institution. The University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color, or national origin in the administration of any of its educational programs or activities or with respect to admission or employment. Further, faculty, staff, students, and applicants are protected from retaliation for filing complaints or assisting in an

investigation under the University's Equal Opportunity/Affirmative Action Plan. Inquiries regarding the University's non-discrimination policy may be sent to the director, Affirmative Action Office/Equal Employment Opportunity Programs, West Virginia University — Office of the President.

West Virginia University Administration

- E. Gordon Gee, *President*
- Joyce McConnell, *Provost and Vice President for Academic Affairs*

Deans

- *Benjamin M. Statler College of Engineering and Mineral Resources*, Eugene V. Cilento
- *College of Business and Economics*, Nancy McIntyre (Interim)
- *College of Creative Arts*, Paul K. Kreider
- *College of Education and Human Services*, Gypsy Denzine
- *College of Law*, Gregory W. Bowman
- *College of Physical Activity and Sport Sciences*, Dana D. Brooks
- *Davis College of Agriculture, Natural Resources, and Design*, Daniel J. Robison
- *Dean of Students*, G. Corey Farris
- *Eberly College of Arts and Sciences*, Maryanne Reed (Interim)
- *Honors College*, Kenneth P. Blemings
- *Reed College of Media*, Diana K. Martinelli (Interim)
- *School of Dentistry*, Tom Borgia (Interim)
- *School of Medicine*, Clay Marsh
- *School of Nursing*, Tara Hulsey
- *School of Pharmacy*, Patricia A. Chase
- *School of Public Health*, Gregory A. Hand
- *University College*, Sue Day-Perroots
- *University Libraries*, Jon Cawthorne

Distinguished Professors

- James Abraham, Bonnie Wells Wilson Distinguished Professor and Eminent Scholar
- Daniel Alkon, Toyota Chair for Neurodegenerative Disease Research
- James Anderson, Davis Michael Professor of Forestry and Natural Resources
- Brian Anderson, GE Plastics Materials Engineering Professorship
- Gerald G. Ashdown, James H. "Buck" and June M. Harless Professor of Law
- Karl Barth, Samples Professorship of Civil and Environmental Engineering
- Robert M. Bastress, John W. Fisher II Professor of Law
- Robert E. Blobaum, Eberly Family Distinguished Professor of History
- Forest Bowman, Jackson and Kelly Professor of Law, Emeritus
- Laura Brady, Eberly Distinguished Professor of Outstanding Teaching
- James E. Brick, Dr. Edmund B. Flink Chair of Internal Medicine
- Jim Brown, K-Mart Corporation Chair of Marketing
- Vincent P. Cardi, Bowles, Rice, McDavid, Graff and Love Professor of Law
- Tim Carr, Marshall S. Miller Energy Professor of Geology
- Linda M. Carson, Ware Distinguished Professor, Emerata
- William H. Carter, Warren Point Chair of Internal Medicine
- Judie F. Charlton, Jane McDermott Shott Chair of Opthalmology
- Patricia Chase, Gates E. Wigner Dean for the School of Pharmacy
- Nigel N. Clark, George B. Berry Chair of Engineering
- Franklin D. Cleckley, Arthur B. Hodges Professor of Law, Emeritus
- Roger Congleton, BB&T Chair of Economics
- Robert Dailey, Davis-Michael Professor of Animal and Veterinarian Sciences
- Walter Dekeseredy, Anne Deane Carlson Endowed Chair of Social Sciences
- Lisa DiBartolomeo, Armand E. and Mary W. Singer Professor in the Humanities

- Robert DiClerico, Eberly Family Professor Outstanding Teaching, Emeritus
- Charles R. DiSalvo, Woodrow A. Potesta Professor of Law
- James Ebel, Harrison/Omnicom Professorship in Integrated Marketing Communications
- Barry A. Edelstein, Eberly Family Distinguished Professor of Clinical Psychology
- James Elkins, Arthur S. Dayton Professor Law
- Eloise Elliott, The Ware Family Distinguished Professorship
- Sanford Emery, RTF Cline Chair in Orthopedic Surgery
- Eve Faulkes, J. Bernard Schultz Endowed Professor of Art
- Ali Feliachi, Electric Power Systems Chair
- John W. Fisher, II, William J. Maier, Jr. Dean Emeritus
- Paula F. Fitzgerald, Nathan Haddad Professor of Business Administration
- Kenneth Fones-Wolf, The Stuart and Joyce Robbins Chair in History
- Mathis P. Frick, O. F. Gabriele Chair of Radiology
- James J. Friedberg, Hale J. and Roscoe P. Posten Professor of Law
- Hota Gangarao, Wadsworth Professorship
- Laura Gibson, Alexander B. Osborn Distinguished Professor in Hematological Malignancies Research
- Ronald L. Gross, Jane McDermott Shott Chair of Ophthalmology
- Rakesh K. Gupta, George and Carolyn Berry Chair
- Ludwig Gutmann, Hazel Ruby McQuain Chair of Neurological Research
- Joseph Hagan, Barnette Professor of Political Science
- Trevor M. Harris, Eberly Family Professor of Geography
- Keith Heasley, Charles T. Holland Professor of Mining Engineering
- Eric Herron, Eberly Family Professor of Political Science
- JoAnn Hornsby, Interim Hazel Ruby McQuain Arthritis/Rheumatic Disease Chair
- Tara Hulsey, E. Jane Martin Professor of Nursing
- Glen P. Jackson, Ming Hsieh Teaching Professor of Forensic and Investigative Science
- Abnash Jain, Abnash C. Jain Distinguished Professorship in Cardiology
- Thomas Kammer, Eberly College Centennial Professor of Geology
- Vlad Kecojevic, Massey Foundation Professor of Mining Engineering
- Kennon A. Lattal, Eberly College Centennial Professor of Psychology
- Richard D. Layne, Grace Kinney Mead Chair of Geriatrics
- Huey Hannah Lin, J. Vance and Florence Highland Johnson Teaching Professor of Chinese Studies
- Paul Lockman, Douglas D. Glover Endowed Chair of the Department of Basic Pharmaceutical Sciences
- Diana Martinelli, Widmeyer Professorship in Public Relations
- Michael Mays, Eberly Distinguished Professor of Outstanding Teaching
- Joyce E. McConnell, William J. Maier, Jr. Dean and Thomas R. Goodwin Professor
- Marjorie A. McDiarmid, Steptoe and Johnson Professor of Law and Technology
- Patrick C. McGinley, Charles H. Haden, Jr. Professor of Law
- James McGraw, Eberly Family Professor of Biology
- James A. McLaughlin, Robert L. Shuman Professor of Law
- Maura McLaughlin, Eberly Family Distinguished Professor of Physics and Astronomy
- Daniel McNeil, Eberly Family Professor for Outstanding Public Service
- Keith Morris, Ming Hsieh Distinguished Professor of Forensic and Investigative Science
- Tracy Morris, Eberly Family Professorship of Teaching
- William Neal, James H. Walker Chair of Pediatric Cardiology
- Peter Ngan, Branson-Maddrell Endowed Professorship in Orthodontics
- Daniel Panaccione, Davis Michael Professor of Plant and Soil Sciences
- John Parker, N. Leroy Lapp Professorship of Pulmonary and Critical Care Medicine
- Syd S. Peng, Charles E. Lawall Chair in Mining Engineering
- William P. Petros, Mylan Chair of Pharmacology
- Jason Phillips, Eberly Family Professor of Civil War Studies
- Christopher Plein, Eberly Family Professor for Outstanding Public Service

- Joseph Prudomme, Christopher Cline Chair in Orthopedic Surgery
- Lois Raimondo, Shott Chair of Journalism
- Hayne W. Reese, Centennial Professor of Psychology, Emeritus
- Scot Remick, Laurence and Jean DeLynn Chair of Oncology
- Patricia Rice, Eberly Family Professor for Outstanding Teaching, Emerita
- Richard A. Riley, Louis F. Tanner Distinguished Professor of Public Accounting
- Terry L. Rose, Ernest L. Hogan Chair of Life Insurance
- Greg Rosencrance, Patricia T. Ayash Distinguished Professorship/Internal Medicine Charleston Div.
- J. Michael Ruppert, Jo and Ben Statler Eminent Scholar and Chair, Breast Cancer Research
- Terry Schwinghammer, The Arthur I. Jacknowitz Distinguished Chair of Clinical Pharmacy, Emeritus
- Earl Scime, Oleg D. Jefimenko Professor of Physics
- Vicky Sealy, The Russell and Ruth Bolton Eberly College Professorship
- Mohindar Seehra, Eberly Professor in Physics, Emeritus
- Kenneth Showalter, C. Eugene Bennett Chair of Chemistry
- David Siderovski, E. J. Van Liere Medicine Professorship
- Gay Stewart, Eberly Professor of STEM Education
- Donley Studlar, Eberly Family Professor of Political Science, Emeritus
- Timothy Sweet, Eberly Professor of American Literature
- Richard Turton, Russell and Ruth Bolton WVU Professorship for Outstanding Teaching
- Michael Vernon, Sanger Chair of Family Planning and Reproductive Physiology
- Kung Wang, Eberly Family Professorship of Chemistry
- Stephen Wetmore, Romeo Lim and Maria Lim Chair of Otolaryngology
- Joshua Blackmer Williamson, Mabel DeVries Tanner Endowed Professor of Theatre
- Brian D. Woerner, Stephanie and Raymond J. Lane Endowed Professor
- John Zaniewski, Asphalt Technology Professorship
- C. Q. Zhang, Eberly Family Professorship of Mathematics

Academic and Professional Standards

In this section:

Academic Rights, Penalties, and Appeal Procedures

A student, by voluntarily accepting admission to West Virginia University or enrolling in a class or course of study offered by West Virginia University, accepts the academic requirements and criteria of the institution. It is the student's responsibility to fulfill coursework and degree or certificate requirements and to know and meet criteria for satisfactory academic progress and completion of the program.

Any question of interpretation regarding Student Rights and Responsibilities shall be referred to the Provost and Vice President of Academic Affairs or his or her designee or the Chancellor/Vice President for Health Sciences or his or her designee (Associate Provost for Undergraduate or Graduate Academic Affairs) for final determination. The Flowchart of Appeals for Academic Penalties may be found on the Office of Student Conduct (http://campuslife.wvu.edu/office_of_student_conduct) website.

Any behaviors not academic in nature but related to student conduct should be referred to the Campus Student Code as stipulated in Board of Governors Policy 31.

Academic Rights

Each student at West Virginia University shall have the following academic rights:

1. Right to have his/her performance evaluated solely upon performance in the coursework as measured against academic standards. The student shall not be evaluated prejudicially, capriciously, or arbitrarily. The student shall not be graded, nor shall his/her performance be evaluated, on the basis of his/her race, age, disability, veteran status, religion, sexual orientation, color, national origin, or other protected status.
2. Right to appeal any academic penalty or sanction.

3. Right to access a copy of the college or University catalog or program brochure in which all current program requirements and standards are described (e.g. required courses, total credit requirements, time in residence requirements, special programs requirements, minimum Grade Point Average, probation standards, professional standards, etc.).
4. Right to receive course syllabi with descriptions of content and requirements for any course in which they are enrolled (e.g., attendance expectations, special requirements, laboratory requirements including time, field trips and costs, grading standards and procedures, professional standards, etc.).
5. Right to assigned grades issued from the instructor of each course to students enrolled in the course consistent with the academic rights set out in the preceding sections.

APPLICATION OF POLICY TO STUDENTS

Students are expected to adhere to academic requirements and standards in all academic settings, classrooms, laboratories, clinics, and at any other activities that are part of academic requirements. Students who fail to meet the academic requirements or standards, including those for academic dishonesty, may be subject to one or more of the penalties described below.

Academic Requirements & Consequences of Failure to Meet Requirements

Normally students may finish a program of study according to the requirements under which they were admitted to the program. However, requirements are subject to change at any time with reasonable notice provided to students.

A student at West Virginia University who fails to meet academic requirements or standards, including those for academic honesty, will be subject to one or more of the following academic penalties:

1. A lower final grade, including failure of a course. A lower grade or failure of the course can be imposed by the instructor. The course instructor can recommend the grade of unforgivable failure (UF); the UF penalty can only be imposed by the dean of the college or school offering the course upon recommendation from the instructor. See also the section on Academic Dishonesty in this section of the catalog concerning the grade of UF.
2. Exclusion from further participation in class (including laboratories or clinical experiences). Exclusion of a student from further participation in class requires that the instructor of the course consult with the Dean of the School or College offering the course and either the Associate Provost for Undergraduate Academic Affairs, the Associate Provost for Graduate Academic Affairs, or the Associate Vice President for Academic Affairs in Health Sciences, depending on the level and unit offering the course.
3. Failure of a program requirement or failure to meet academic standards. Program requirements must be described in the catalog or program description. Program requirements may include such items as passing a qualifying exam, maintaining progress on research, or meeting professional standards of conduct. Failure of a program requirement must be communicated to the student in writing, typically by their program director or chair of the committee that assesses the program requirement.
4. Academic probation or suspension at the program, college, or school level for failure to meet program requirements and academic standards, or at the university level for failure to meet grade point average standards. Students placed on probation or suspension shall be notified in writing, including the reason for the probation or suspension, the length of the probation or suspension, and the requirements for removing or continuing the probation or suspension. More information concerning probation and suspension of undergraduate students at the university level (http://catalog.wvu.edu/undergraduate/coursecreditstermsclassification/#probationsuspensiontext) is available in the Academic Standards section of undergraduate catalog. More information about probation and suspension of graduate students at the program, college, or school level (p. 17) is in the Academic Standards section of the graduate catalog.
5. Dismissal from a program, college, school, or the university. Dismissal is defined as termination of student status, including any right or privilege to receive some benefit or recognition or certification. "A student may be academically dismissed from any program and remain eligible to enroll in courses in other programs at the institution, or a student may be academically dismissed from the institution and not remain eligible to enroll in other courses or program at the institution" (BOG Policy 15, page 3). Dismissal from a program, college, or school at the graduate level must be communicated to the Associate Provost for Graduate Academic Affairs or to the Health Sciences Associate Vice President for Academic Affairs. The Associate Provost or Associate Vice President submits a request to the Office of the University Registrar to change the student's status to non-degree. Dismissal from the university (expulsion) requires consultation and approval from the student's dean, the Associate Vice President for Academic Affairs (Health Sciences students only), and the Provost's Office.

Appeals

Students may appeal any academic penalty or sanction described above and imposed by an instructor, the institution, or its constituent academic units through the procedures described in this section of the catalog with the following exceptions:

- Probation and suspension imposed by the university upon undergraduate students for failure to maintain minimum university academic requirements (GPA) may not be appealed through the process described in this section of the catalog. University probation based on GPA may not be appealed. University suspension of undergraduate students based on GPA may be appealed as described in the Academic Standards section of the undergraduate catalog (http://catalog.wvu.edu/undergraduate/coursecreditstermsclassification/#probationsuspensiontext).
- Academic penalties imposed as a result of the academic dishonesty procedures described in this catalog in the section entitled "Academic Dishonesty" may not be appealed through this process.
- Probation, suspension, or expulsion from the university imposed by the Office of Student Conduct may not be appealed through this process.

Appeals may include but are not limited to:

- Appeals of final grade penalty, including the grade of unforgivable failure (UF) if determined by a violation other than academic dishonesty. Grades for individual course assignments cannot be appealed except in the context of a final grade appeal. Students have the right to appeal final course grades which they believe reflect a capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race, sex, age, handicap, veteran status, religion or creed, sexual orientation, color, or national origin. The grade appealed shall remain in effect until the appeal procedure is completed or the problem resolved.
- Appeals of exclusion from class.
- Appeals of failure of academic program requirements.
- Appeals of imposition of academic probation.
- Appeals of imposition of academic suspension.
- Appeals of dismissal from undergraduate, graduate, or professional degree programs.
- Appeals of dismissal from the institution.

The school or college dean is the final level of appeal for final grade penalties or exclusion from class. The school or college dean (main campus) or the Associate Vice President for Academic Affairs (Health Sciences) is the final level of appeal for academic probation or suspension from a program, school, or college. The Office of the Provost is the final level of appeal for dismissal from the program or university.

University administrators named below may designate an appropriate other administrator (designee) or committee to review and make decisions about appeals.

APPEAL PROCEDURES FOR ACADEMIC PENALTIES EXCLUDING APPEAL OF ACADEMIC DISHONESTY

LEVEL 1: INFORMAL APPEAL

1. If a student is dissatisfied with a posted grade or written notice of exclusion from class, the student meets informally with the course instructor within 20 business days of the posting or delivery of the written notice to determine if the issue can be resolved.
2. If a student is dissatisfied with a written notice of failure of a program requirement, or probation, suspension, or dismissal from a program, the student meets informally with the program director or chair of the committee that imposed the penalty within 20 business days of delivery of the written notice to determine if the issue can be resolved.
3. If the course instructor, program director, or committee chair is not available, or the nature of the complaint makes the discussion with that individual uncomfortable, the student may proceed to Level 2 within 10 business days after contacting the individual.
4. The course instructor, program director, or committee chair reviews the evidence provided by the student, makes a decision to uphold or overturn the penalty, and informs the student within 5 business days following the meeting with the student.
5. If the student is dissatisfied with the decision or outcome from the meeting with the instructor, program director, or committee chair, the student must file a formal appeal (Level 2). If the student is satisfied with the outcome or penalty, the case is closed.

LEVEL 2: FORMAL APPEAL TO DEPARTMENT CHAIR OR SCHOOL DEAN

1. Within 5 business days of the decision at Level 1, or within 30 days of the final grade posting or delivery of written notice of the academic penalty, the student formally appeals in writing to the chair of the course instructor's department for appeals of a final grade or class exclusion, or to the chair of the department (main campus) or the dean of the school (Health Sciences) that houses the student's program for appeals of failure of a program requirement, or probation, suspension, or dismissal from a program. In this appeal, the student must provide all documentation and evidence forming the basis of the appeal. When a student appeals a final grade, the course instructor must provide all criteria for determining grades to the department chair.
2. The department chair or school dean reviews the appeal, makes a decision to uphold or rescind the penalty, and informs the student and instructor or program director/committee chair of the decision within 5 business days of receipt of the written appeal.
3. If the appeal is resolved, the case is closed. If the student is dissatisfied, the student may proceed to Level 3.

LEVEL 3: FORMAL APPEAL TO THE DEAN OR THE ASSOCIATE VICE PRESIDENT FOR ACADEMIC AFFAIRS IN HEALTH SCIENCES

1. Within 5 business days of the decision at Level 2, the student formally appeals in writing to the college dean (all appeals for main campus), the school dean (for final grade or class exclusion appeals in Health Sciences), or the Associate Vice President for Academic Affairs in Health Sciences (for failure of a program requirement, or probation, suspension, or dismissal from a program).
2. The dean or Associate Vice President reviews the case, makes a final decision, and informs the student and individuals or committees involved with the Level 2 appeal in writing within 10 business days. In the case of a grade appeal, the dean may choose to appoint an ad hoc representative committee that consists of three or more faculty members, including at least one member from outside of the instructor's department to make a recommendation to the dean concerning the appeal.
3. If the appeal concerns a final grade, exclusion from class, failure of a program requirement, or program probation or suspension, the case is closed.

4. If the appeal concerns program, college/school, or university dismissal, the student may proceed to Level 4.

LEVEL 4: FORMAL APPEAL OF DISMISSAL TO THE OFFICE OF THE PROVOST

1. The student formally appeals in writing to the Associate Provost for Undergraduate Academic Affairs or the Associate Provost for Graduate Academic Affairs, as appropriate, within 5 business days of receiving the decision at Level 3. The student will be required to supply all prior documentation and any additional evidence available concerning the case and to clearly state the grounds for the appeal.

2. The Associate Provost reviews the case, makes a final decision, and informs the student and individuals or committees involved with the Level 3 appeal in writing within 30 days of receipt of the appeal, except where adherence to such time period would be impracticable, in which case such time period shall be extended as warranted by particular circumstances.

In this section:

Academic Integrity and Dishonesty

Students of West Virginia University are citizens of a broader academic community. As such, the University expects that every member of its academic community share its historic and traditional commitment to honesty, integrity, and the search for truth. To meet these standards, academic dishonesty will not be tolerated.

Academic Dishonesty Defined

The term "academic dishonesty" means plagiarism; cheating and dishonest practices in connection with examinations, papers, and/or projects; and forgery, misrepresentation, or fraud as it relates to academic or educational matters.

1. The term "**plagiarism**" means the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment, including, but not limited to, the unacknowledged use of materials prepared by another individual engaged in the selling of term papers or other academic materials.

2. The terms "**cheating and dishonest practices in connection with examinations, papers, and/or projects**" means (i) giving or receiving of any unauthorized assistance in taking quizzes, tests, examinations, or any other assignment for a grade; (ii) depending upon the aid of sources beyond those authorized by the instructor in quizzes, tests, examinations, writing papers, preparing reports, solving problems, or carrying out other assignments; (iii) the acquisition or use, without permission, of tests or other academic material belonging to a member of the University faculty or staff; or (iv) engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.

3. The terms "**forgery, misrepresentation, or fraud as it relates to academic or educational matters**" means (i) wrongfully altering, or causing to be altered, the record of any grade or other educational record; (ii) use of University documents or instruments of identification with the intent to defraud; (iii) presenting false data or information or intentionally misrepresenting one's records for admission, registration, or withdrawal from the University or from a University course; (iv) knowingly presenting false data or information or intentionally misrepresenting one's records for personal gain; (v) knowingly furnishing the results of research projects or experiments for the inclusion in another's work without proper citation; or (vi) knowingly furnishing false statements in any University academic proceeding.

Penalties for Academic Dishonesty

Cases of academic dishonesty shall be concurrently subject to academic penalties listed in WVU Board of Governors Policy 15 (http://bog.wvu.edu/r/download/158325) and the disciplinary penalties in Policy 31 (http://bog.wvu.edu/r/download/158326).

ACADEMIC PENALTIES FOR A CHARGE OF ACADEMIC DISHONESTY

The instructor may impose the following academic penalties:

- A lower grade or failing project/paper/test grade
- A lower final grade
- Failure of the course

In addition to the above penalties, the instructor may also recommend to the department chair and college dean penalties the college dean may impose.

The college dean may impose the following academic penalties:

- Exclusion from further participation in class (including laboratories or clinical experiences)
- Grade of unforgivable failure (UF)
- Exclusion from an academic program*

- Academic probation within a program*
- Academic dismissal from a program*

*These sanctions may be enforced if the academic dishonesty occurs in a course in the student's major college.

DISCIPLINARY PENALTIES

Disciplinary penalties may include the following:

- Expulsion: Permanent separation of the student from the University. Permanent notification will appear on the student's transcript.
- Suspension: Separation of the student from the University for a specified period of time. Permanent notification will appear on the student's transcript.
- Probation: A written reprimand for prohibited conduct that specifies a designated probationary period of time and includes the probability of more severe disciplinary sanctions if he/she commits academic dishonesty.

Procedures for Academic Dishonesty - Academic Remedies and Referral to the Office of Student Conduct

Upon identification of an allegation of academic dishonesty, and/or to begin the process of issuing a penalty, the following steps must be followed:

STEP 1: DISCOVERY LEVEL

1. A faculty member or course instructor notifies the student in writing of the academic dishonesty charge and impending sanctions within five (5) business days of discovering the infraction.
2. The student schedules a meeting with the faculty member or course instructor to discuss the academic dishonesty charge and to review all relevant materials.
3. If the faculty member or course instructor determines that the academic dishonesty charge is supported, the faculty member or instructor will complete the Academic Dishonesty Form (ADF) found on the Office of Provost's website and will advise the student of the academic sanction to be imposed. The academic sanction must be limited to classroom resolutions, including but not limited to change in assignment or test grade, repeating or revising the assignment, make-up testing, change in course grade, up to an F or other classroom resolutions within the discretion of the instructor. If the sanction is an unforgivable failure (UF) or program dismissal, the faculty member or course instructor shall recommend that the college dean or designee impose the UF or program dismissal. The college dean or designee shall determine whether the penalty is commensurate with the charge.
4. If the faculty member or course instructor determines in his or her judgment that the academic dishonesty rises to a level of significance warranting potential suspension or dismissal from the institution (expulsion), the faculty member or course instructor must first consult with his or her dean or dean's designee. The college dean or designee shall determine if the charge warrants potential suspension or expulsion. If the college dean agrees with the instructor's determination, the matter shall be referred to the Office of Student Conduct which shall undertake student disciplinary proceedings consistent with WVU BOG Policy 31 and the Campus Student Code. If the matter is referred to the Office of Student Conduct, all proceedings under this Academic Dishonesty Procedure will be stayed until the conclusion of the Student Conduct Proceedings. If the disciplinary proceedings under the Campus Student Code result in a finding that the student is not responsible as charged, the case is closed and no further academic dishonesty proceedings may occur. If, however, the student is found responsible under the Campus Student Code and all appeals under that procedure have been either exhausted or waived, in addition to the disciplinary sanctions imposed under the Campus Student Code, the matter will also be referred back to this academic dishonesty process, which shall recommence at the juncture at which the process was previously discontinued (instructor, chair, dean, or provost's level) when referred to the Office of Student Conduct for imposition of academic dishonesty sanctions only, consistent with the finding of responsibility under the Campus Student Code. Once a finding of responsibility has been determined under the Campus Student Code, the jurisdiction of the Academic Dishonesty Procedure shall be limited to imposing academic sanctions alone (under Policy 15), and no further evaluation of responsibility may be undertaken.
5. The faculty member or course instructor completes the Academic Dishonesty Form (http://studentlife.wvu.edu/r/download/99267) found on the Office of the Provost website (http://provost.wvu.edu). The student must sign and date the Academic Dishonesty Form and indicate whether he/she accepts or rejects responsibility for both the charge and the sanction; or in the case of a matter already adjudicated under the Campus Student Code, the student may reject only the academic sanctions imposed subsequent to the finding of the Student Conduct Board. The faculty member or course instructor sends signed copies to the department chair or designee, college or school dean or designee, and the Office of Student Conduct.
6. If the student accepts both the academic dishonesty charge and the sanction, the case is closed and the academic sanction is imposed.
7. If the student does not accept the academic dishonesty charge and/or sanction, he or she may appeal to the department chair (or equivalent).
8. If the sanction is exclusion from class and the student appeals to the department chair (or equivalent), the student shall be allowed to attend and participate in class until the case is determined.
9. If the sanction is unforgivable failure (UF), and if the student accepts both the academic dishonesty charge and penalty, the instructor shall recommend that the college dean or designee impose the UF on the student's permanent record. The dean shall determine if the UF is commensurate with the charge. The case is closed.

STEP 2: DEPARTMENT CHAIR LEVEL [1]

The Health Science Center may forward the appeal to the Academic and Professional Standards Committee.

1. If the student does not accept the faculty member or course instructor's determination of academic dishonesty and/or sanction, the student may appeal the faculty member or course instructor's decision in writing, providing the completed Academic Dishonesty form and supporting documents to the department chair (or equivalent) within five (5) business days of the student's receipt of the course instructor's decision as documented on the Academic Dishonesty Form.

2. The department chair (or equivalent) meets with the student and the instructor independently. The chair (or equivalent) assesses all evidence and makes a final determination, notifies the student within ten (10) business days by email or certified mail, and completes the next section of the Academic Dishonesty Form. If the recommended sanction is an unforgivable failure (UF) or program dismissal, the chair (or equivalent) in consultation with the college dean or designee shall determine whether the penalty is commensurate with the charge. Copies of the signed Academic Dishonesty Form shall be distributed to the student, instructor, the college dean, and the Office of Student Conduct.

3. If the student accepts both the academic dishonesty charge and the sanction, the case is closed and the academic sanction is imposed.

4. If the department chair (or equivalent) determines in his or her judgment that the academic dishonesty rises to a level of significance warranting potential suspension, or expulsion from the University, and the case has not otherwise already been referred to the Office of Student Conduct, the department chair (or equivalent) must first consult with his or her dean or deans designee. The college dean or designee shall determine if the charge warrants potential suspension or expulsion. If the college dean agrees with the chair's determination, the matter shall be referred to the Office of Student Conduct which shall undertake student disciplinary proceedings consistent with WVU BOG Policy 31 and the Campus Student Code.

5. If the student does not accept the academic dishonesty charge and/or sanction, he or she may appeal to the college dean.

STEP 3: THE COLLEGE DEAN LEVEL

1. If the student does not accept the department chair's (or equivalent's) determination of academic dishonesty and/or sanction, the student may appeal the chair's (or equivalent's) decision in writing, providing supporting documents to the college or school dean or designee within five (5) business days of the student's receipt of the chair's (or equivalent's) decision as documented on the Academic Dishonesty Form.

2. Within five (5) business days, the dean convenes/appoints a Student Academic Hearing Committee (SAHC), to be comprised of at least three faculty members determined within the discretion of the dean. One of the members should be from outside the student's program.

3. The SAHC meets with the student and the instructor independently and reviews all evidence. The SAHC makes recommendations to the dean within ten (10) business days.

4. The dean or designee reviews the SAHC's recommendations and may accept the SAHC's recommendations in whole or in part, or may exercise his or her sole discretion in making a final decision. The dean or designee shall notify the student within ten (10) business days of receipt of the SAHC recommendations by email or certified mail, and complete the next section of the Academic Dishonesty Form. Copies of the Academic Dishonesty Form shall be distributed to the student, instructor, chair, and Office of Student Conduct.

5. If the dean or designee determines in his or her judgment that the academic dishonesty rises to a level of significance warranting potential suspension, program dismissal, or expulsion, and the case has not otherwise already been referred to the Office of Student Conduct, the dean shall refer the matter to the Office of Student Conduct which shall undertake student disciplinary proceedings consistent with WVU BOG Policy 31 and the Campus Student Code.

6. If the student does not accept the academic dishonesty charge and/or sanction, he or she may appeal to the Office of the Provost.

STEP 4: OFFICE OF THE PROVOST (UNIVERSITY LEVEL)

1. If the student does not accept the dean or designee's determination of academic dishonesty and/or sanction, the student may appeal the dean's decision in writing, providing supporting documents and explaining the basis of the appeal to the Office of the Provost within five (5) business days of the student's receipt of the dean or designee's decision as documented on the Academic Dishonesty Form.

2. The Provost or Provost's designee shall review all evidence and make a final determination on the matter. The Provost or Provost's designee shall notify the student within ten (10) business days by email or certified mail of the decision and complete the Academic Dishonesty Form. Copies of the Academic Dishonesty Form shall be distributed to student, instructor, chair (or equivalent), dean, and Office of Student Conduct.

3. If the Provost or Provost's designee determines in his or her judgment that the academic dishonesty rises to a level of significance warranting potential suspension, or expulsion, and the case has not otherwise already been referred to the Office of Student Conduct, the Provost or Provost's designee shall refer the matter to the Office of Student Conduct which shall undertake student disciplinary proceedings consistent with WVU BOG Policy 31 and the Campus Student Code.

[1]   All subsequent levels of this procedure are subject to the provisions regarding reference to the Office of Student Conduct, as described in Step 1, paragraphs 4 and 5.

In this section:

- Appeal of Suspension or Dismissal

Probation

Graduate students may be placed on probation by the dean of their college or school by failing to maintain acceptable grades in their courses or in their performance in other areas such as research progress or professional behavior. Graduate students with a cumulative grade point average (GPA) below 2.75 may be subject to probation by the dean of their college or school. Individual academic units may designate a higher GPA or other academic standards required for students to remain in good standing.

Probation, which is not recorded on a student's permanent record, constitutes a warning to the student that standards are not being met. A letter of probation delivered by the graduate program to the student must outline the reason for the sanction as well as delineate academic or other benchmarks for the student to attain in order to have the probation sanction removed. Students may request review of the sanction of probation by the academic official who imposed it at any point in a semester. At the conclusion of the semester in which a student was placed on probation, the academic program shall review the academic record and performance of the student. If the stipulations set forth in the letter of probation have been met, the student is removed from probation. If the stipulations have not been met, student standing is reassessed by the program and the student may continue on probation or be suspended or dismissed by the academic unit.

Suspension and Dismissal

Students failing to maintain satisfactory academic standing, progress toward their degree, or professional behavior as delineated by the letter of probation may be suspended or dismissed from their degree program. Suspension or dismissal from a program normally follows a sanction of probation in cases where students have been counseled regarding academic stipulations and fail to attain those stipulations. Typically, students are suspended or dismissed from a program at the end of an academic term and are notified formally by the department and/or the dean of the college/school of suspension or dismissal from their program. However, students can be suspended or dismissed from their program without a prior probation period in the case of serious violations of academic or professional standards, with approval of the school or college dean and the Associate Provost for Graduate Academic Affairs. If the program recommends dismissal from the University the case is referred to the Office of Student Conduct and Student Conduct processes apply.

Suspension from a program means that a student will not be permitted to register for classes offered by the program or participate in other program activities until the student has been officially reinstated. The normal period of suspension is a minimum of one academic semester but will not exceed one calendar year. A student who has been suspended for academic deficiencies and who takes courses at other institutions during the period of suspension cannot automatically transfer such credit toward a degree at WVU upon readmission. Students are not eligible for readmission if they earn lower than a 2.75 at other institutions while on suspension from WVU. After one semester of satisfactory performance at WVU, and on request of the student's program, the appropriate transfer credit will be entered into the student's record.

Dismissal from a program can result from repeated failure to make academic progress, failure to meet probationary terms set forth in writing by the student's program, violations of written standards provided by the student's program, or serious violations of professional standards. A student who is dismissed from a program will not be permitted to register for classes offered by the program or participate in other program activities. A student who is dismissed from the University will not be permitted to register for any classes offered by the University for academic credit. After five calendar years from the effective date of dismissal, any student who has been dismissed shall, upon written application, be considered for reinstatement to the University with the terms of reinstatement to be established by the college or school willing to reinstate the student. Failure to meet these terms will result in permanent academic dismissal.

Reinstatement After Suspension

During the semester immediately following the effective date of suspension, suspended students may petition in writing for reinstatement. The college or school petitioned shall establish the terms of reinstatement for successful student petitions. After one calendar year from the effective date of suspension, any student who has been suspended once shall, upon written application, be reinstated to the University and to the college or school in which the student was previously enrolled, unless the student petitions for admission to another college or school. A suspended student who is reinstated under the provisions above will be placed on academic probation. Each college or school shall have the right to establish requirements or performance expectations. After the second or any subsequent suspension, a student may be reinstated to the University provided that a college or school agrees to reinstate the student. After a student has been reinstated, he or she must apply for readmission through the Office of Admissions.

Appeal of Suspension or Dismissal

See the Academic Rights, Penalties, and Appeal information in the Academic and Professional Standards section.

Research Integrity

Integrity in research and scholarship is an obligation of all who engage in the acquisition, application, and dissemination of knowledge. Research and scholarly work by West Virginia University faculty, staff, and students is governed by a number of federal, state, and institutional policies. Information on policies and procedures, guidelines, educational programs, and monitoring and accountability in these areas is provided at oric.research.wvu.edu.

Any graduate student who conducts research using animals must have a protocol approved by the Animal Care and Use Committee before starting the research. Information and procedures are available at oric.research.wvu.edu/animal.

Any graduate student who conducts research involving human subjects must have the approval of the Institutional Review Board for the Protection of Human Subjects before starting the research. Information and procedures are available at oric.research.wvu.edu/human-research-protections-program-and-the-irb.

All members of the University community are obligated to report observed, suspected, or apparent misconduct in research. Reports should be made to the University's research integrity officer through the link to Online Research Problem Reporting at oric.research.wvu.edu.

Intellectual Property

The Office of Technology Transfer is responsible for the protection and commercialization of intellectual property for all WVU organizations. Faculty members and other researchers, including graduate students, are the primary source of intellectual property, either through the invention of new products or processes, or through know-how and expertise in certain fields. Intellectual property can be protected through patents, copyrights, trademarks, and trade secrets. Commercialization occurs primarily through licenses of patents and/or know-how to existing companies, and, in some cases, through the creation of a joint venture or even a start-up company. Policies, forms, and other useful information about intellectual property and technology transfer activities at WVU is available at techtransfer.research.wvu.edu.

Admissions

APPLICATION:

- General Information
- Initial Inquiry
- Transfer Students
- Adding or Changing Programs
- Minimum Admission Standards
- Standardized Tests
- Admission Denial
- Non-Degree Applicants

CLASSIFICATIONS:

- Regular Graduate Students
- Provisional Graduate Students
- Non-Degree Graduate Students
- Reclassification of Provisional Graduate Students
- Other Reclassifications

INTERNATIONAL:

- International Student Admission

In this section:

General Information

Applications and required fees are submitted to the Office of Graduate Admissions (graduate.wvu.edu/future-students). Some professional programs may also require application through another central service. Once applications are complete, they are forwarded to departments for review and decisions. Final admission cannot be granted until all final transcripts have been received and successful completion of the student's bachelor's degree (or master's degree, if required) has been determined by the Office of Graduate Admissions.

A student who wishes to take courses after completing a degree at WVU must submit a new application and pay the nonrefundable application fee. Applicants who wish to pursue more than one degree must apply separately to each degree program. Any applicant who fails to enroll within a year after

acceptance must reapply. Students admitted to and enrolled in a degree program who have not been enrolled for two or more years must reapply for admission.

Students who wish to enroll in graduate courses (including online and off-campus courses) must be admitted to West Virginia University as a regular, provisional, or non-degree graduate student. Each degree program has specific admission requirements that should be carefully reviewed prior to applying. Although applicants may meet the minimum requirements for admission into the university, admissions acceptance is determined by each specific academic program.

Initial Inquiry

Prospective graduate students are encouraged to complete an online inquiry form and are urged to contact the relevant academic department regarding specific admissions requirements and opportunities for pursuing graduate study. In addition to obtaining information online or through the mail, students should contact graduate program directors or individual faculty members to ascertain the potential for graduate study in particular academic and research areas. For a list of available degree and certificate programs, websites, and contacts, see the list of "Degree Programs" in this catalog and at majors.wvu.edu. Information and links relevant to the application process can be found at graduate.wvu.edu/future-students/application-process with additional information regarding the program of interest to be found on the individual programs' websites.

Transfer Students

A student wishing to transfer to WVU from another accredited institution should follow the same application procedures as those specified for new graduate students.

Adding or Changing Programs

A current WVU graduate student who wishes to be admitted to an additional or to a different graduate program must contact the program to determine the procedure for applying for admission. In most cases, the student must apply to the program through the regular admissions process.

When a student changes from one program to another within the University, the faculty of the new program determines if any credit (up to 12 credits) earned under the guidance of the prior program may be applied to the new program.

Minimum Admission Standards

The WVU Graduate Council establishes the minimum standards for admission to graduate study detailed in the "Classifications" section. Beyond this point, however, faculty members in a given graduate program control who is to be admitted to graduate study under their supervision. While a student may be admitted to the University to enroll in advanced coursework as a non-degree student, only program faculty may grant permission for the pursuit of a graduate degree.

Standardized Tests

Many programs at WVU require graduate record examination (such as the GRE or GMAT) scores from all applicants, but in no program is an examination score the sole criterion for admission. Some programs require both the general and the appropriate advanced tests before considering an applicant for admission. Other programs require different tests. Specific admission requirements are found in the admissions section of each program description within the Graduate Catalog (catalog.wvu.edu/graduate/) and at majors.wvu.edu. If GRE or GMAT tests are required, the applicant should request the Educational Testing Service to forward scores to the WVU Office of Graduate Admissions. The code identifying WVU to the GRE is 5904. In addition, applicants are encouraged to upload a machine-reproduced copy of their GRE or GMAT scores, if available, as part of their online application in order to facilitate the WVU evaluation process.

Admission Denial

If an application for admission into a graduate program is denied, the applicant may request the reasons for refusal of admission by writing to the graduate program coordinator. It should be noted that meeting the minimum requirements for admission into a graduate program does not ensure admission. Many programs, due to resource limitations, restrict the number of admissions by selecting the top candidates among the qualified applicants. An applicant may appeal to the program for reconsideration if he or she can document factual errors in processing the application or if the decision was deemed arbitrary, capricious, or discriminatory in nature.

If the matter is not resolved satisfactorily within thirty calendar days of the receipt of the appeal by the program, the applicant may appeal to the dean of the college or school. The decision of the dean, as the provost's designee, shall be rendered within twenty calendar days of the receipt of the appeal and is final.

Non-Degree Applicants

Students not wishing to pursue an advanced degree may apply for admission as non-degree graduate students through the Office of Admissions: admissions.wvu.edu/.

In this section:

Regular Graduate Students

Regular graduate students are degree-seeking students who meet all the criteria for regular admission to a program of their choice. The student must have earned a baccalaureate degree from an accredited college or university, must have had a grade point average of 2.75 or higher on a 4.0 scale, must have met all the criteria established by the degree program, and must be under no requirements to make up deficiencies.

Provisional Graduate Students

Regular graduate students are degree-seeking students who meet all the criteria for regular admission to a program of their choice. The student must have earned a baccalaureate degree from an accredited college or university, must have had a grade point average of 2.75 or higher on a 4.0 scale, must have met all the criteria established by the degree program, and must be under no requirements to make up deficiencies.

Non-Degree Graduate Students

A non-degree graduate student is a student not admitted to a program. Admission as a non-degree student does not guarantee admission to any course or program. The reasons for non-degree admission may be late application, incomplete credentials, scholarship deficiencies, or lack of a degree objective. Although a non-degree student has not been admitted to a graduate program, a program may allow a non-degree student to enroll in its courses. To be admitted as a non-degree student, a student must present evidence of a baccalaureate degree from an accredited college or university and a 2.5 grade point average. The student must also earn a 2.5 grade point average on the first twelve credit hours of coursework taken at WVU and then maintain this average as long as he or she is enrolled as a non-degree student. To be eligible to enter a degree program as a regular graduate student, the student must have earned a 2.75 or higher grade point average on all coursework taken since admission as a non-degree graduate student.

These standards are the minimum standards established by the University. Individual academic units or graduate programs may establish higher standards.

Reclassification of Provisional Graduate Students

A provisional graduate student may be reclassified as a regular graduate student when the student meets the requirements specified in the letter of admission from the student's program. The requirements must at minimum include earning a grade point average of 2.75 or higher on all coursework and, if appropriate, satisfactory performance in ESL (English as a Second Language) courses. Individual degree programs may set higher grade point average requirements.

A unit must review the student's record and make a final decision on the student's admission no later than at completion of eighteen credit hours. All credit hours taken since admission as a provisional graduate student or those to be applied to a degree count in the eighteen credit-hour limit, i.e., undergraduate or graduate credit, P/F, S/U, graded courses, and transfer credit.

A student who has met the provisions of admission and achieved the required grade point average and other requirements may be reclassified as a regular graduate student. A student who fails to meet the provisions of admission or who fails to achieve the required grade point average will be suspended, but may be reinstated in order to transfer to another program or to non-degree status. The academic unit must notify the student and the Office of Admissions of its decision to admit or suspend the student.

The Office of Admissions will prohibit the registration of all provisional graduate students who have reached the maximum of eighteen credit hours. Registration will not be permitted until the student is reclassified as a regular graduate student, a provisional graduate student in a different program, or a non-degree graduate student. An exception may be granted by an academic dean. A student may be admitted as a provisional graduate student more than once, but not by the same graduate program.

Other Reclassifications

Regular and provisional students may become non-degree graduate students by choice. This includes students who fail to meet admission or academic standards or who withdraw voluntarily. A regular or provisional graduate student who is dismissed from a program for academic or other reasons will be reclassified as a non-degree graduate student.

International Student Admission

West Virginia University is authorized under federal law to enroll non-immigrant foreign nationals as students. International students wishing to enroll for graduate work at WVU must comply with the academic requirements for admission and with certain additional academic and nonacademic requirements.

International applicants should forward a letter of inquiry to the department they want to enter, one year before they wish to begin study in the United States. The University receives a large number of applications from international students. For this reason and because of the time required for the student to make visa and financial arrangements, international applicants are strongly encouraged to adhere to posted University and program deadlines for guaranteed consideration for the desired semester.

Details regarding application requirements for international graduate students can be found at admissions.wvu.edu/admissions/toefl/graduate-students. Incomplete applications cannot be guaranteed consideration for the desired semester. Applicants are encouraged to contact the academic program of interest for program-specific information about requirements other than the general admissions criteria listed above.

International students seeking or offered financial support as graduate teaching assistants (GTAs) and whose native language is not English are required to pass the WVU SPEAK test prior to engaging in any classroom instruction (iep.wvu.edu/testing_resources/speak).

Advising, Enrollment & Evaluation

ADVISING:

- Advisors
- Plan of Study
- Advising of Non-Degree Students
- Yearly Evaluation

ENROLLMENT:

- Credit Loads and Limits
- Minimum Enrollment
- Leaves of Absence
- Non-Degree Students
- Auditors
- Attendance Policy
- Withdrawal Policy

GRADES:

- Grades in Graduate Courses
- Grading System
- Satisfactory/Unsatisfactory-Pass/Fail
- Grade Point Average
- Incompletes
- Repeated Courses
- Official Transcripts

In this section:

Advisors

Academic and scholarly advising varies by graduate program across the University. Each graduate academic unit has one or more graduate advisors, and every graduate student is assigned an advisor at the time of admission or shortly thereafter. This advisor may also be the student's thesis or dissertation advisor. The advisor and student typically meet soon after the student's admission to the program to develop a plan of study and on a regular basis thereafter to monitor and review progress. In most programs the plan of study should be in place no later than the end of the student's first semester.

Plan of Study

All graduate students must have a plan of study, which is a formal agreement between the student and their program faculty regarding the conditions the student must meet to earn the desired degree. The plan of study usually lists required courses and activities and describes the timeline for these requirements. The plan may also include suggested or optional courses and activities. Each college or school determines the mechanisms for establishing, changing, and monitoring students' progress on plans of study.

Advising of Non-Degree Students

Each dean establishes a mechanism to advise non-degree graduate students who intend to take the majority of their coursework in the dean's college or school. Such mechanisms may include designating a faculty or staff member at an advising office or center to advise non-degree students. Non-degree students with an interest in programs in two colleges or schools may be assigned to either by the Office of Admissions. It is expected that the student will take responsibility for understanding the policies of each unit and facilitate any needed communication between advisors.

Yearly Evaluation

All graduate students who enrolled in at least one credit during the academic year are provided with a written evaluation from their program following the end of each spring term. This requirement may be waived for students in good standing who are expected to graduate in spring or summer.

In this section:

- Credit Loads and Limits (p. 23)
- Minimum Enrollment (p. 23)
- Leaves of Absence (p. 23)
- Non-Degree Students (p. 24)
- Auditors (p. 24)
- Attendance Policy (p. 24)
- Withdrawal Policy (p. 24)

Credit Loads and Limits

Nine credit hours is the minimum load to be considered a full-time graduate student in the fall and spring terms and six credit hours is the minimum load to be considered a full-time graduate student in the summer term. Courses taken under the audit option are counted toward attaining full-time enrollment status. Graduate students are not permitted to take more than 16 hours in a fall or spring term without approval by their college or school and by the Office of Graduate Education and Life. Requests for more than 18 hours in a fall or spring term, or from students with a grade point average below 3.25, will not normally be approved. No overload requests will be considered for the summer term. Although students may enroll for up to 16 hours in the summer term, they are strongly discouraged from enrolling in more than 12 hours.

Minimum Enrollment

In any term during which a graduate student is using University research facilities, consulting with graduate committee members, or completing a thesis or dissertation (including the thesis or dissertation defense and submission of the Electronic Thesis and Dissertation, or ETD), the student must enroll for at least one hour of graduate credit. Students who take courses intermittently may be excused from such continuous enrollment if they are not using University facilities or consulting with faculty while they are not enrolled. However, students formally admitted to candidacy for graduate degrees are required to register for at least one credit hour each fall and spring term as a condition of their continued candidacy. Individual programs may also require summer enrollment. By pursuing a degree, such persons by definition are utilizing University services, facilities, and other resources, including faculty expertise; this situation continues in cases where students have completed all required coursework and are working on a thesis or dissertation. Candidates for graduate degrees who fail to maintain continuity of enrollment may be dropped from candidacy.

Students who have completed all requirements for a degree (including the thesis or dissertation defense and submission of the ETD) prior to the beginning of the term of graduation do not need to enroll during that term.

Leaves of Absence

Graduate students in good standing who wish to be away from their academic endeavors at WVU for one or more semesters but intend to return at a later date may request a leave of absence. Students should consult with their program or school/college concerning the required procedure to request a leave of absence. Some programs (such as some master's programs or part-time programs) may not require students to request a leave of absence in order to enroll sporadically and remain in good standing. Doctoral students admitted to candidacy who wish to not enroll for one or more semesters must be granted a leave of absence in order to maintain their candidacy. Leaves of absence are not required for summer terms unless otherwise specified by a student's program.

Minimally, requests for leaves of absence must be submitted in writing to a student's program director prior to the beginning of the semester for which the leave is desired. The program director (or an appropriate faculty committee or other administrator) determines whether or not to grant the leave of absence, the length of time granted, and any conditions the student must meet to return to the program following the leave of absence (including a date

by which the student must inform the program that he or she plans to return). The student is informed in writing of the outcome of their request, and a copy of the outcome is retained in the student's records.

Information concerning military deployments during a semester is available at http://wvuveterans.wvu.edu/current_students/ deploying_or_returning_from_deployment/wvu_policy_on_deployments.

Non-Degree Students

Non-degree students are normally those taking classes for enrichment purposes, public school teachers taking classes for certification renewal, or students taking classes as prerequisites for admission to degree programs. Non-degree students may enroll in any course in the University for which they have the prerequisites and permission from the academic unit. However, some departments that cannot accommodate non-degree students may restrict enrollments to majors only or require permits.

A non-degree graduate student may accumulate unlimited graduate credit hours. If the student is later admitted to a degree program, the faculty of that program will decide whether any credit earned as a non-degree student may be applied to the degree. Under no circumstances may a non-degree student apply more than twelve hours of previously earned credit toward a degree.

Auditors

An auditor may register for courses and must pay full fees but does not receive credit for the course. A student who audits a course must let one semester pass before enrolling in the course for credit. A student may change his or her status from audit to grade or grade to audit only during the registration period. Attendance requirements for auditors are determined by the instructor of the course. The instructor may direct the Office of the University Registrar to remove an auditor from a class list or grade report if attendance requirements are not met.

Attendance Policy

IMPORTANCE OF CLASS ATTENDANCE

At West Virginia University, class attendance contributes significantly to academic success. Students who attend classes regularly tend to earn higher grades and have higher passing rates in courses. Excessive absences may jeopardize students' grades or even their ability to continue in their courses. There is a strong correlation between regular class attendance and academic success. Faculty are strongly encouraged to require attendance in all 100-level classes.

ATTENDANCE POLICIES

Instructors must set attendance policies that are appropriate for the goals and instructional strategies of their courses. Instructors may include attendance records in determining the final course grade. All attendance policies that affect students' grades must be announced in writing within the first week of class. Moreover, instructors are responsible for keeping accurate enrollment records, and for keeping accurate attendance records when attendance is used in grading. Attendance policies thought to violate the statement on student attendance should first be discussed with the instructor, then with the department chair, and finally the college dean, if necessary.

CLASS ABSENCES

Students who are absent from class for any reason are responsible for all missed work and for contacting their instructors promptly, unless the instructors' policies require otherwise. However, instructors cannot require documentation of student illness from any medical provider as part of an attendance policy, since medical conditions are confidential and frequently not verifiable.

MAKE-UP EXAMINATIONS

Students absent from regularly scheduled examinations because of authorized University activities will have the opportunity to take them at an alternate time. Students in courses with regularly scheduled evening examinations shall have the opportunity to make up these examinations if they miss them in order to attend a regularly scheduled class that meets at the same time. Such make-up examinations should be of comparable difficulty to the original examination. Attendance at a regularly scheduled evening examination will not excuse a student from a regularly scheduled class that meets at the same time as the examination.

DAYS OF SPECIAL CONCERN

Instructors are urged not to schedule examinations or field trips on "Days of Special Concern" that are identified in the Schedule of Courses.

Withdrawal Policy

There are two types of withdrawals: withdrawal from individual courses for which a student has registered and a complete withdrawal from the University. Deadlines for withdrawals for each semester are available at: http://registrar.wvu.edu/current_students/withdrawal_policies. If students follow all established University procedures and withdraw before the published deadline, they will receive a W on their transcript. The grade point average is not affected in any way by this mark. If formal withdrawal procedures are not executed by the student, a failing grade/s will be recorded. It is the student's responsibility to see that all forms are properly executed and delivered to the appropriate authorities for recording.

WITHDRAWAL/DROP FROM INDIVIDUAL CLASSES

Students may drop individual classes within a term based on established deadlines. These deadlines are posted on the Office of the University Registrar's website. Students, with the help of their academic advisors, are responsible for determining:

- If their course load would be reduced below the minimum requirement set by their program
- If their course load would be reduced below the minimum hours required to qualify for a graduate assistantship, financial aid, or international full-time student status
- If the course to be dropped is a co-requisite for another course the student is taking or a prerequisite for a course required the following semester. The student may be required to drop the co-requisite course or asked to take a substitute course the following semester.

WITHDRAWAL FROM ALL CLASSES FOR THE TERM

Students may withdraw from WVU for the term in which they are enrolled at anytime before the last day of classes of the term on which regular classes are scheduled to meet. Students will receive grades of W in all classes for that term.

PROCEDURES

1. To withdraw from all classes through the last day to drop a class with a W, a student would log on to their MIX account and drop their classes through STAR.
2. To withdraw from the term after the last day to drop a class with a W, a student must submit a request to the Office of the University Registrar. Instructions for submitting this request (in person or by email, mail, or fax) are found on the Office of the University Registrar's website (http://registrar.wvu.edu/current_students/withdrawal_policies).

Important Notice: Financial aid recipients who withdraw from all classes before sixty percent of the term is completed may be required to return a portion of any financial aid that was received for the term. Students who do not receive at least one passing grade for classes in a term must provide documentation which verifies continued participation in educational activities. If documentation cannot be provided, those students are considered to have informally withdrawn from WVU prior to sixty percent of the term and may be required to return a portion of any financial aid which was received. This review and return of financial aid is done in accordance with federal regulations.

RE-ENROLLMENT AFTER WITHDRAWAL

After a student withdraws from WVU in two consecutive semesters (excluding summer sessions), a student may not register for further work without approval of the dean of the college or school in which the student wants to register. Enrollment is subject to conditions set by that dean. In the case of a general studies major, the student must seek approval from the director of the University College.

In this section:

Grades in Graduate Courses

Letter grades are assigned in many graduate courses. Grades of C or below are considered substandard. Some programs allow credit for courses in which a grade of C is earned; others do not.

Grading System

Grade	Description
A	Excellent (Given only to students of superior ability and attainment)
B	Good (Given only to students who are well above average but not in the highest group.)
C	Fair (Average for undergraduate students.)
D	Poor but passing (Cannot be counted for graduate credit.)
F	Failure
I	Incomplete
W	Withdrawal from a course before the date specified in the University calendar.
P	Pass (See Pass/Fail grading below)

X	Auditor, no grade and no credit.
CR	Credit but no grade
PR	Progress; final grade to be issued at end of second semester (HSC)
S	Satisfactory
U	Unsatisfactory
H	Honors course (Professional school courses only)
IF	Incomplete grade not removed by next regular term (Computed as an F.)
UF	Unforgivable F (Not eligible for D/F repeat policy.)

Note: Grades that are not reported by faculty at the end of a term will be designated with an NR on the official transcript. Grades that are not reported will become an F at the conclusion of the next semester if a final grade is not submitted.

Satisfactory/Unsatisfactory - Pass/Fail Grading

At the graduate level, the satisfactory-unsatisfactory ("S/U") grading option is used only for the course numbers 697/797 "Research." The "S" and "U" grades for 697/797 are not applied to the calculation of the GPA. "S/U" shall be the only grading option for 697/797.

Other courses for which faculty wish to use a binary grading option should use the pass-fail ("P/F") grading option. Grades of "F" earned using this option do apply to the GPA.

Grade Point Average

GRADE POINTS

Each letter grade has a numeric value. Grade points are based on this number value and the credit hour value of the course.

- A- 4
- B- 3
- C- 2
- D- 1
- F- 0
- I- 0
- U- 0

The grade point average is computed on all work for which a student registers, with the following exceptions:

- Courses with a grade of W, P, S, and X carry no grade value. The grade of incomplete (I) initially carries no grade value.
- When a student receives the grade of I and the incomplete grade is later removed, the grade point average is calculated on the basis of the new grade. If the I grade is not removed within the next semester, the grade is treated as an F (failure).
- If a student is working toward teacher certification, he or she is responsible for every registration in a course in which the grade of A, B, C, D, F, P, X or I is received.

GRADE POINT AVERAGE

All academic units of the University have minimum standards of scholastic quality that must be met or exceeded. Grade point average (GPA) is computed on grades earned in courses taken at WVU and institutions in the West Virginia system of higher education; beginning in January 2012, grades earned in baccalaureate-level college work attempted at other accredited institutions are also included in the calculation of the overall GPA. To be eligible to receive a baccalaureate, a student must have a GPA of at least 2.0 at the time of graduation. Some degree programs require a higher grade point average overall or in the major courses. GPA is based on all work for which a student received a letter grade other than W and P. See D/F Repeat Policy. The grade point average for honors consideration for a baccalaureate is based on baccalaureate-level college work attempted at WVU as well as other accredited institutions.

Students are responsible for knowing their grade point standing and can obtain the necessary information from their advisor or the dean of their college or school. GPA is determined according to the method described in the section on grade points.

GPA CALCULATION

1. Students need to know how to calculate their overall and semester grade point averages. The following example shows how to do it. Assume you are registered for 16 hours and receive the following grades in these courses:
   a. English 101 – B
   b. Mathematics 126 - A
   c. Geology 101 - C

    d. Political Science 101 - B

    e. Spanish 101 - D

    f. Psychology 201 - P

2. Course, Credits, Grade, Value, Credits x Value, Grade Points Earned
   a. English 101, 3, B, 3, 3 x 3 = 9
   b. Geology 101, 3, C, 2, 3 x 2 = 6
   c. Spanish 101, 3, D, 1, 3 x 1 = 3
   d. Mathematics 126, 3, A, 4, 3 x 4 =12
   e. Political Science 101, 3, B, 3, 3 x 3 = 9
   f. Psychology 201, 1, P, 0, 1 x 0 = 0

3. Multiply the credit by the grade value to get the grade points earned for each course
4. Add the total grade points, in this case, 39.
5. Divide the total grade points earned by the total credit hours with a grade value. Remember that P grades have no grade value, so in this case, there are 15 credit hours for the GPA calculation: 39 divided by 15 = grade point average of 2.6.

Incomplete Grades

A grade of I (Incomplete) is a temporary grade assignment used when unforeseen, non-academic circumstances arise that prohibit students from completing the last course assignments or examinations at the end of the semester. The grade of Incomplete is typically assigned because of an excused absence from the final examination, or because assignments are unavoidably incomplete, as determined by the instructor. Students who are failing a course (exclusive of the incomplete work) may not request an Incomplete.

Students who want be considered for an Incomplete must apply to their instructor prior to the end of the term. If the instructor agrees, the instructor and the student must negotiate the conditions under which the grade of I will be changed to a letter grade and sign a contract. The date to submit the incomplete work should not be set beyond the last day of class of the following semester. If the student does not complete the terms of contract then the instructor should submit a grade of F. All incomplete contracts must be filed with the department and Dean's Office.

To remove the grade of I, a student does not register for the course again.

If the Incomplete grade is not changed no later than the end of the next major term (excluding summer), the I grade will be replaced with an IF.

Repeated Courses

Courses repeated that cannot be taken again for credit follow this procedure:

1. The original grade is included in determining the overall GPA. It is excluded from earned or degree hours and is marked with an (A).
2. The original grade is not deleted from the student's permanent record.
3. The second grade is entered on the student's transcript and marked as included (I) in the semester that the course was repeated.
4. Courses repeated more than once are handled the same way with the final attempt carrying earned or degree hours. All attempts are used for determining the GPA.

Official Transcripts

Students can order official transcripts through their MIX account at any time or go to http://registrar.wvu.edu/transcripts. All orders require a valid e-mail address and a credit/debit card which will be charged once the transcript request has been entered and a confirmation number is provided.

Before ordering a transcript, students should log into their MIX account to ensure that all grades and degree(s) have been posted. Transcript requests are processed immediately. They are not held for posting of final grades and/or degrees.

All financial obligations to West Virginia University must be cleared before transcripts can be released. Transcripts may not be picked up by another party unless the student has given written authorization with the request. The designated person will be expected to show a picture I.D. before obtaining the transcript.

A West Virginia University transcript is a complete record of a student's enrollment at WVU. This includes all undergraduate, graduate, and professional courses. Partial transcripts are not available.

Academic Calendar

FALL 2015

Date	Activity
Thursday, August 13	New Student Orientation

Friday, August 14	General Registration
Monday, August 17	On-Campus First Day of Classes
Friday, August 21	Last Day to Register, Add New Courses, Make Section Changes, Change Pass/Fail and Audit
Monday, September 7	Labor Day Recess: University Closed
Monday, September 14	Rosh Hashanah (Day of Special Concern)
Wednesday, September 23	Yom Kippur (Day of Special Concern)
Friday, October 2	Mid-Semester
Friday, October 9 by noon	Mid-Semester Reports Due
Monday, October 12 thru Tuesday, October 13	Fall Break Recess
Wednesday, October 14	Textbook Selection Deadline (for Spring 2016)
Friday, October 23	Last Day to Drop a Class
Wednesday, November 11	Veterans Day (Day of Special Concern)
Thursday, November 12	Birth of Baha'u'llah (Day of Special Concern)
Saturday, November 21 thru Sunday, November 29	Fall Recess
Monday, December 7	Last Day to Withdraw from the University
Tuesday, December 8	Last day of Classes
Wednesday, December 9	Prep Day for Finals
Thursday, December 10 thru Wednesday, December 16	Final Exam Week
Friday, December 18	Commencement
Monday, December 21	Winter Recess Begins

SPRING 2016

Date	Activity
Thursday, January 7	New Student Orientation
Friday, January 8	General Registration
Monday, January 11	On-Campus First Day of Classes
Friday, January 15	Last Day to Register, Add New Courses, Make Section Changes, Change Pass/Fail and Audit
Monday, January 18	Martin Luther King's Birthday Recess: University Closed
Monday, February 8	Chinese New Year (Day of Special Concern)
Friday, February 26	Mid-Semester
Friday, March 4 by noon	Mid-Semester Reports Due
Monday, March 14	Textbook Selection Deadline (for Summer and Fall 2016)
Friday, March 18	Last Day to Drop a Class
Saturday, March 19 thru Sunday, March 27	Spring Recess
Friday, March 25	Friday Before Easter Recess: University Closed
Thursday, April 21	Feast of Rivdan (Day of Special Concern)
Saturday, April 23	Passover (Day of Special Concern)
Thursday, April 28	Last Day to Withdraw from the University
Friday, April 29	Last Day of Classes
Monday, May 2 thru Friday, May 6	Final Exam Week
Friday, May 13 thru Sunday, May 15	Commencement
Saturday, May 14	Alumni Day

12-Week Summer Session 2016

Date	Activity
Monday, May 16	Registration
Monday, May 16	On-Campus First Day of Classes
Monday, May 30	Memorial Day Recess: University Closed
Friday, June 24	Final Exam for First Six-Week Session
Monday, July 4	Independence Day Recess: University Closed

| Friday, August 5 | Final Exam for Second Six-Week Session and 12-Week Session |
| Friday, August 12 | Degree Conferring Date (No Ceremonies) |

Degree Regulations

Information in the "Degree Regulations" section applies to all master's degrees and to all other research doctoral degrees (Ph.D., Ed. D. etc.). Professional doctoral degrees have separate guidelines.

TIME LIMITS:

- Master's Degree
- Doctoral Degree

COMMITTEES:

- General Requirements for All Graduate Committees
- Master's Thesis Committees
- Doctoral Dissertation Committees

REQUIREMENTS:

- Master's Degree Requirements
- Doctoral Degree Requirements
- Foreign Language Competency
- GPA Standards
- Graduation
- Diploma Retention Policy

THESES & DISSERTATIONS:

- Theses and Dissertations
- Defense
- Submission

In this section:

- Master's Degree (p. 29)
- Doctoral Degree (p. 29)

Master's Degree

Master's degree students are permitted to continue in a program for a maximum of eight years following their term of admission to the program. Students who have been inactive for two or more years or who exceed eight years following their term of admission are required to apply for readmission to the University and their graduate program.

Graduate course work used to meet degree requirements must be satisfactorily completed within a period of eight years immediately preceding the conferring of the degree. Courses completed in the same term as degree conferral (fall, spring, summer) eight years previously are considered to fall within the 8-year limit. A course completed more than eight years prior to the term of degree conferral must be revalidated if it is to be used toward meeting degree requirements. Revalidation can be accomplished through the following procedure:

- The current instructor of the course determines the method used to revalidate the course. The student may, for example, be required to complete specific activities (such as repeating all or some of the course or completing a set of readings). The instructor then assesses the student's knowledge of course material (through such means as a written or oral examination, a paper, a project, or some other assessment) and determines if the student's knowledge is adequate to justify revalidation of the course.
- The instructor submits a description of the revalidation method and results of the assessment to the college or school dean or designee.
- The college or school dean or designee submits a letter describing the revalidation process and supporting the revalidation to the Associate Provost for Graduate Academic Affairs.
- The Associate Provost informs the Office of the Registrar that the course has been revalidated.

Doctoral Degree

Doctoral candidates are allowed no more than five years in which to complete the remaining requirements of their program after being admitted to doctoral candidacy. The rationale for this limit is to insure that students earning a doctoral degree have current knowledge (no more than five years old)

in their field. In the event a student fails to complete the doctorate within five years after admission to candidacy (calculated from the beginning of the academic term following admission to candidacy), an extension may be requested. The extension may be requested before or after the candidacy period expires, but only after the student repeats the program's examination for admission to candidacy or an alternate procedure (approved by the student's college or school dean or designee) for assessing the student's academic competence and current knowledge in their field of study. If appropriate, the student may be expected to retake or revalidate courses (using the procedure described for master's students) in order to insure that the student's subject knowledge is up-to-date. A request for an extension of time in order to complete degree requirements must be submitted by the student's college or school dean or designee to the Associate Provost for Graduate Academic Affairs and must include the following:

- A statement documenting the circumstances that justify the request. Include information about any leaves of absence approved for the student.
- A description of the procedures followed to insure the student's academic competence and up-to-date knowledge in the field of study (repetition of the admission to candidacy examination or alternate procedure).
- A timeline by which the student is expected to complete remaining degree requirements, including a final deadline by which all degree requirements must be completed.
- Evidence of endorsement of the request from the student's advisory committee and the office of the dean.

In this section:

General Requirements for All Graduate Committees

The majority of the members of any graduate thesis or dissertation committee must be regular members of the graduate faculty, including the chair of the committee. No more than one person may be a nonmember of the graduate faculty. No family member may serve on the graduate committee of his or her relative. All graduate thesis and dissertation committees are subject to the approval of the chairperson or designee of the department/division and the dean or designee of the college or school. Once a graduate thesis or dissertation committee has been officially established, it will not be necessary to alter it if the graduate faculty status of a member of the committee is downgraded. Any changes in the membership of a graduate thesis or dissertation committee require approval of the dean or designee of the college or school. Depending on circumstances and the judgment of the dean or designee, replacement of the chair may require that activities already completed (such as a prospectus approval meeting) be repeated.

Membership of graduate committees other than thesis or dissertation committees are subject to the rules of individual programs. It is recommended that such committees include a majority of graduate faculty members (regular or associate).

Master's Thesis Committees

Master's thesis committees consist of no fewer than three members. It is recommended that at least one member of the committee be from outside the student's department/program.

Doctoral Dissertation Committees

Doctoral dissertation committees consist of no fewer than five members. At least one member of the committee must be from a department other than the one in which the student is seeking a degree.

In this section:

Master's Degree Requirements

Students in a master's program must complete a minimum of 30 total credits, of which at least 24 credits must be coursework other than research, thesis, project, internship, etc. credits. Many programs set requirements for higher numbers of coursework credits to earn the master's degree. Some, but not all, master's programs require completion of a thesis.

Doctoral Degree Requirements

The doctorate is a research or performance degree and does not depend on the accumulation of credit hours. The three requirements of the degree are admission to candidacy, residency, and completion and defense of a dissertation. The program of doctoral study is planned with the student's graduate advisor and committee to combine any or all of the following: graduate courses of instruction, special seminars, independent study, supervised

research, and supervised training designed to promote a broad and systematic knowledge of the major field and to prepare the student to complete the requirements for admission to candidacy and to successfully complete the dissertation.

ADMISSION TO DOCTORAL CANDIDACY

Admission to graduate study and enrollment in graduate courses do not in themselves imply acceptance of the student as a candidate for a doctoral degree. Admission to doctoral candidacy is accomplished only by satisfactorily passing a candidacy examination (which may have a different label in different programs) and by meeting other requirements specified by the program. The doctoral student's competency is generally assessed and verified through a candidacy examination in a reasonable period of time after acceptance into a program. Because the candidacy examination attests to the academic competence of the student and is the formal mechanism for admitting the student to candidacy, it cannot precede the conferring of the degree by too long a period of time (refer to the section on time limits for the doctoral degree).

The candidacy examination typically assesses the student's knowledge of the important issues in their field of study, as well as their ability to engage in research. The examination is intended to determine whether the student has the academic competence to undertake independent research in the discipline and to insure that the student possesses a thorough grasp of the fields outlined in the plan of study. The exam is generally taken after a student has completed the major portion of the program course requirements and other program-specific requirements (such as the acceptance of a prospectus, a grant exercise, or other forms of student evaluation).

Candidacy examinations are evaluated by a faculty examining committee consisting of at least three members. If two members vote to fail the student, all or part of the candidacy examination must be repeated. Academic tradition does not allow a candidacy examination to be administered more than three times; many programs limit administration to two times.

RESIDENCY

Doctoral education involves many learning experiences that take place outside the formal classroom setting. These involve observing and participating in activities conducted by the graduate faculty, using departmental and University libraries, attending lectures presented by visiting scholars, informally debating other students, and similar activities. To insure that graduate students experience this kind of informal learning, doctoral programs at WVU generally require at least two semesters in residence on campus. However, an individual student or graduate committee may propose an alternative plan by which the student can gain equivalent educational experience. This plan must be submitted in writing, approved by the college or school dean or designee, and placed in the student's program file.

Foreign Language Competency

Competence in one or more foreign languages may be a requirement in some graduate degree programs. The faculty in the program specifies the language or languages and the level of competence to be demonstrated. Students should contact their graduate program coordinator or chair for more information.

GPA Standards

A minimum GPA of 2.75 based on all courses taken while a graduate student (including undergraduate level courses) or transferred to a student's graduate transcript is required for graduation (although some professional programs use different grading systems and standards; see individual listings). Individual academic units may designate a higher GPA or other academic standards required for students to graduate.

Graduation

Students anticipating completion of all degree requirements by the end of a term must complete an Application for Graduation (see registrar.wvu.edu/ current_students) by the posted deadline for that term. The candidate must complete all requirements by posted deadlines. If the degree is not earned during that term, the student must submit a new Application for Graduation by the posted deadline for the term in which completion is again anticipated.

Colleges and schools are responsible for certifying that master's and doctoral students meet the minimum requirements of the University as well as any additional college or school requirements.

Diploma Retention Policy

Diplomas retained by or returned to the Office of the University Registrar will be held for two years. This includes diplomas that are retained in the office for financial holds, have been returned to sender, or shipped to the office for pick up. After two years of the conferral date, any request for a diploma by the student will incur fees and fall under all policies associated with ordering a replacement diploma.

In this section:

Theses and Dissertations

Many master's degrees and all research doctoral degrees require the completion of a research project under the direction of the faculty of the University on some topic in the field of the major subject. The thesis must present the results of the master's degree candidate's investigation. The dissertation must present the results of the doctoral candidate's individual investigation and must embody a definite contribution to knowledge. Regulations concerning the constitution of thesis and dissertation committees are in the section on graduate committees. (http://catalog.wvu.edu/graduate/advisingcoursesdegrees/degree_regulations/#Top_Thesis)

Defense

After the thesis or dissertation committee has tentatively approved the student's written thesis or dissertation, the final defense can be scheduled. This defense is usually held in the term in which all other requirements for the degree are to be met. At the option of the faculty responsible for doctoral degree programs, a comprehensive final written examination also may be required of doctoral students.

The student's committee chairperson must obtain approval of the time, place, and committee members for the defense from the college or school dean or designee at least three weeks before the defense date. All dissertation defenses are open to the public and the university community.

The student cannot be considered as having satisfactorily passed their defense if there is more than one unfavorable vote among members of the committee. Results of each defense must be reported to the college or school dean or designee within twenty-four hours. If the defense is not passed, a repeat of the defense may not be scheduled without approval by the college or school dean or designee.

The student and all committee members are expected to be physically present for a defense. In extraordinary circumstances, and only with the approval of the college or school dean or designee, an individual may attend by audio or videoconference (with videoconferencing preferred). Anyone attending the defense electronically must remain available during the entire time of the defense.

In extraordinary circumstances, the dean or designee may permit another person to substitute for one of the committee members during the defense, provided that the original committee member was not the chair. There can be no substitute for the chair. Only one substitute is allowed, and the request for a substitute must be made in writing to the dean or designee prior to the examination. The request for a substitute should be signed by the committee chair, the student, and both the original member (if available) and the substitute member. A substitute committee member must have the same or higher graduate faculty status as the original committee member and represent the same academic discipline or specialization. If a substitute committee member attends the defense, the substitute signs the shuttle sheet; however, the original committee member should provide written comments to the student on the thesis or dissertation and sign the Thesis and Dissertation Signature Form required for submission of the document to the University Libraries.

Submission

Once approved by a student's graduate committee, the final version of all WVU theses and dissertations must be submitted electronically through the University Libraries. Information about formatting, submission, and approval of electronic theses and dissertations is available at thesis.wvu.edu.

FERPA

In this section:

- Notice to Students Regarding FERPA (p. 32)
- Designation of Directory Information (p. 32)
- Designation of Limited Use Directory Information (p. 33)
- Withholding Directory Information (p. 33)
- Parent/Guest Access to Online Student Records (p. 33)

Notice to Students Regarding FERPA

Students at West Virginia University and its divisional campuses ("WVU" or "University") benefit from the Family Educational Rights and Privacy Act of 1974. This Act, with which West Virginia University intends to comply fully, was designed to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. A more detailed explanation of rights afforded to students by FERPA can be found at: http://ferpa.wvu.edu/policy.

Designation of Directory Information

WVU designates the following categories of student information as public or "Directory Information." This information may be disclosed at West Virginia University's discretion for any purpose:

- Name of Student
- Official Address
- Telephone Number

- Place of Birth
- Age of Student
- Names and Addresses of Parents
- Major and Minor Fields of Study
- Class Status (i.e., freshman)
- Enrollment Status (i.e., full time or part time)
- Dates of Attendance
- Previous Educational Institution(s) Attended
- Degree(s) and Date(s) Conferred, including anticipated graduation dates
- Awards
- Honors
- Participation in Officially Recognized Activities and Sports
- Weight and Height of Members of Athletic Teams
- Duties and Responsibilities, including Dates of Service, of Graduate Assistants, Student Workers, Interns, or Student Volunteers

Designation of Limited Use Directory Information

WVU designates the following categories of student information as "Limited Use Directory Information:"

- University issued student electronic mail addresses ("Email Addresses")
- Photographs, videos or other media containing a student's image or likeness (collectively "Student Images")

Accordingly, this information will not be provided to external parties not contractually affiliated with the University. Use and disclosure of this information shall be limited to (1) publication on websites hosted by, on behalf of, or for the benefit of the University, including the online directory available at: http:// directory.wvu.edu; (2) those officials within the University who have access, consistent with the Family Educational Rights and Privacy Act, to such information and only in conjunction with an official institutional purpose.

Withholding Directory Information

Currently enrolled students, using the official West Virginia University Confidentiality form, may withhold disclosure of Directory Information under the Family Educational Rights and Privacy Act of 1974. To withhold disclosure, written notification must be received in the Office of the University Registrar at West Virginia University, PO Box 6878, Morgantown, WV 26506. Official forms requesting the withholding of Directory Information are available in the Office of the Registrar. Such requests will be processed as soon as is practicable upon receipt.

The failure on the part of any student to specifically request, on the official form, the withholding of Directory Information indicates individual approval for disclosure. Additionally, a request to withhold Directory Information shall have no effect on previous disclosures, if any, made by WVU before the receipt of a request to withhold Directory Information; nor will a student's request to withhold Directory Information revoke an otherwise valid written FERPA release already on file with the University.

Parent/Guest Access to Online Student Records

The Parent/Guest Portal is now the exclusive method by which a University student may grant a third-party access to his or her records. Now, information that is protected from disclosure pursuant to the Family Educational Rights and Privacy Act (FERPA), such as grades, financial aid details, and student account/billing information is maintained in a secure online environment. A student may grant permission to a parent or guest to access this information and make payments through this portal. Due to the protection of students' rights under FERPA, a student may restrict the information that a parent or guest is able to access and revoke access at any time. For more information on the Parent/Guest Portal, please visit: http://parent-guest.portal.wvu.edu/.

For FERPA updates and more information on West Virginia University's FERPA policy, please visit: http://ferpa.wvu.edu or contact Legal Affairs at: 304.293.5841.

Financial Aid

APPLY FOR AID:

- Application Process
- Aid Offer Notification
- Employment Opportunities

POLICIES:

- Satisfactory Academic Progress

• Consequences of Withdrawal

FINANCIAL ASSISTANCE:

• Information on Financial Assistance for Graduate and Professional Students

In this section:

• Application Process (p. 34)
• Aid Offer Notification (p. 34)
• Employment Opportunities (p. 34)

To receive an offer of aid, you must be admitted to WVU as a degree seeking student. If you feel you need financial assistance, apply early.

Application Process

To apply for financial aid, a student must first apply for a US Department of Education student PIN and a parent PIN (if the student is considered a dependent student for financial aid purposes) at www.pin.ed.gov (http://www.pin.ed.gov). The PIN is used to sign the online Free Application for Federal Student Aid (FAFSA), review processed information, correct FAFSA data, and conduct other important business directly with the US Department of Education. Students are advised to save their PIN because they will need it for future transactions.

Students can complete the FAFSA at www.fafsa.gov (http://www.fafsa.gov) and include WVU's school code – 003827 – on their application. The FAFSA should be submitted prior to March 1 for full consideration. If preferred, a paper form can be requested from the FAFSA Information Center at 800-433-3243. The FAFSA is completed annually. Students must renew the FAFSA to receive consideration for aid.

Aid Offer Notification

WVU will receive students' FAFSA information electronically if the WVU school code was included on the FAFSA. After a FAFSA is reviewed for accuracy, an award notification will be sent to the student. First time freshman will be notified through paper letter. All other students are notified via their MIX email account. MIX email is the major mode of communication with students for the University. Therefore, it is imperative that students check their MIX email account regularly.

Employment Opportunities

The Office of Student Employment can assist students in securing on-campus and off campus job opportunities. For assistance go to http://studentemployment.wvu.edu or call 304-293-9270.

In this section:

• Satisfactory Academic Progress (p. 34)
• Consequences of Withdrawal (p. 35)

Satisfactory Academic Progress

Students who wish to receive funds administered by the Financial Aid Office must make measurable academic progress toward completion of an eligible degree. Regulations require evaluation both quantitative (required GPA) and qualitative (successful completion of a % of all attempted hours) as well as degree completion within 150% of the number of hours required for the degree (undergraduates only).

Undergraduates must complete at least 67% of all attempted hours with the following GPA:

•   1-28 attempted hours - 1.4 GPA
•   29-58 attempted hours - 1.7 GPA
•   59-88 attempted hours - 1.9 GPA
•   89 or more attempted hours - 2.0 GPA

Graduate students must complete at least 70% of all attempted hours with a 2.75 GPA.

Professional students must complete at least 70% of all attempted hours with the following GPA:

• Law (JD): 2.2 GPA
• Pharmacy (PharmD): 2.5 GPA
• Dentistry (DDS): 2.0 GPA
• Medicine (MD): no GPA determined
• Physical Therapy (DPT): 3.0 GPA

The complete Satisfactory Academic Progress policy is available online at financialaid.wvu.edu.

Consequences of Withdrawal

If a student receives financial aid and withdraws, the student will be subject to the Refund and Repayment Policy. Federal regulations require that WVU calculate eligibility for students who completely withdraw or are dismissed before completing the enrollment period. Students who receive all unsatisfactory grades (defined as at least one "F" and no passing grades) at the end of the grading period will be considered unofficially withdrawn at the semester mid-point unless documentation is available that demonstrates continued class participation. Application of this policy may result in the necessity for a student to return financial aid funds to various Title IV federal aid programs.

A student earns Title IV federal aid based upon the length of time the student remains enrolled during the enrollment period. Students who withdraw on or before completing more than 60% of the semester may be required to return a portion of federal financial assistance. The determination of 60% of the term is computed by dividing the total number of calendar days in the term into the number of calendar days completed as of the date of withdrawal. Scheduled breaks of five consecutive days or more are excluded. The percentage of Title IV assistance which the student has earned is equal to this percentage of the term completed. If the withdrawal occurs after more than 60% of the term is completed, the percentage earned is considered to be 100%.

If more Title IV aid was disbursed than was earned by the student, WVU is required to return the less of (1) the unearned aid percentage of institutional charges or (2) the unearned aid percentage applied to the total Title IV aid received. The student must return unearned aid for which s/he is responsible after subtracting the amount the school will return. Funds are returned in the following priority:

1. Unsubsidized Direct Stafford Loan
2. Perkins Loan
3. Direct PLUS (Graduate Student)

The return of financial aid may result in unpaid charges to WVU for tuition/fees and room/board. WVU will bill the student for any balance due. Students who owe a repayment to any federal financial aid program are no longer eligible for financial aid at any post-secondary institution. Eligibility may be regained after repayment is satisfied.

If less Title IV aid was disbursed than was earned by the student, the student is entitled to a post-withdrawal disbursement within thirty days of withdrawal.

Additional Information

For more information on applying and maintaining financial aid eligibility while enrolled at WVU, visit our website at financialaid.wvu.edu.

Financial Assistance for Graduate and Professional Students

Graduate and professional students are eligible for financial assistance through loans, graduate assistantships, fellowships, tuition waivers, and other forms of aid. To apply for Federal loans, students must complete the FAFSA as described above.

Graduate students may be eligible for graduate assistantships through their own department or other departments and offices on campus. Full graduate assistantships require 20 hours per week of work (typically teaching, research, or service) and provide the student with a stipend, a waiver of University tuition, and student health insurance. Students can learn about available graduate assistantships through their departments or through listings with the Office of Student Employment (http://studentemployment.wvu.edu or call 304-293-9270).

For information and policies about fellowships, graduate assistantships (including application procedures, terms of employment, policies on remuneration, English language proficiency requirements, and consequences of withdrawal), and University tuition waivers, visit the Office of Graduate Education and Life website at graduate.wvu.edu.

Programs, Courses & Credits

PROGRAMS:

- Academic Certificate Matriculation and Award Policy
- Official Program Designations
- Programs Offered by WVU
- Graduate Certificate Programs
- Multiple Graduate Degrees
- Approved Dual Master's Degree Programs

In this section:

- Academic Certificate Matriculation and Award Policy (p. 36)

Academic Certificate Matriculation and Award Policy

Students pursuing an academic certificate must meet residency requirements. All certificate requirements must be completed at WVU following admission to the certificate program, with the following exceptions:

- No more than 6 credits earned as part of a prior WVU degree, earned from a different institution, or earned at WVU prior to admission to the certificate can be applied to certificate requirements. Applicability of credits earned from a different institution to certificate requirements is the decision of the program offering the certificate.
- No more than 6 of the credit hours applied to a certificate program may also be applied to another certificate or degree requirements.

Additionally, academic certificates at the undergraduate level may only be awarded simultaneously with a baccalaureate degree.* Academic certificates at the graduate and professional levels may be awarded either simultaneously with a graduate or professional degree or independently of any degree program. Completion of an academic certificate will be noted on students' transcripts.

*Certain pre-existing undergraduate certificates in the College of Education and Human Services may be awarded independent of a degree program.

Official Program Designations

- **Degree program**: A degree program is an area of study approved as such by the institution and the Board of Governors (BOG) and listed on the official inventory of degree programs (e.g., English, social work, physical education, foreign languages). The degree, which is an award signifying a rank or level of educational attainment and which is conferred on students who have successfully completed a degree program, is represented by the official degree designation (e.g., B.A.—bachelor of arts, B.S.—bachelor of science, etc.)
- **Major**: A major is a field of study within an approved degree program, having its own curriculum. A degree program may have more than one major.
- **Area of Emphasis**: An area of emphasis is a specific subject area within an approved degree program and major. Normally, a minimum of 12 credit hours and no more than 18 credit hours are expected for an area of emphasis within a baccalaureate degree program. Normally, a minimum of 6 and no more than 12 credit hours would be expected for an area of emphasis within a graduate degree program.
- **Minor**: A minor is an area of study outside of the major that encourages students to pursue a secondary field. Students may not earn a minor in the same field as their major. Requirements for a minor are set by the academic unit offering the minor and must include at least 15 hours of coursework, with a minimum of 9 hours at the upper division level (course numbers 300 or above). Minors are only available to students earning a baccalaureate degree.
- **Certificate program**: A certificate program is a coherent, specialized curriculum designed for students in search of a specific body of knowledge for personal/career development or professional continuing eduction. Normally, a minimum of 12 and no more than 21 credit hours constitute a certificate program at the baccalaureate or graduate level.

Programs Offered by WVU

DAVIS COLLEGE OF AGRICULTURE, NATURAL RESOURCES, AND DESIGN

Program	Bachelor's	Master's	Doctoral/Professional
Agribusiness Management and Rural Development	B.S.		
Agricultural and Extension Education - AOE: Agricultural and Environmental Technology	B.S. Agr.		
Agricultural and Extension Education - AOE: Agricultural Teacher Education	B.S. Agr.		
Agricultural and Extension Education - AOE: Extension Education	B.S. Agr.		
Agricultural and Resource Economics		M.S.	
Agriculture, Natural Resources, and Design		M.Agr.	
Agroecology	B.S. Agr.		
Agronomy - AOE: Turf	B.S.Agr.		
Animal and Nutritional Sciences - AOE: Animal and Vet Science	B.S., B.S. Agr.		
Animal and Nutritional Sciences - AOE: Pre-Health Sciences	B.S., B.S. Agr.		
Animal and Nutritional Sciences - AOE: Pre-Vet Medicine	B.S., B.S. Agr.		
Animal Physiology		M.S.	
Applied and Environmental Microbiology	B.S.	M.S.	
Human Nutrition and Food - AOE: Dietetics	B.S.		
Design and Merchandising		M.S.	
Design Studies	B.S.		
Entomology		M.S.	
Environmental and Natural Resource Economics	B.S.		
Environmental Protection - AOE: Pest Management	B.S. Agr.		
Environmental Protection - AOE: Soil and Water Conservation	B.S. Agr.		
Fashion Dress and Merchandising - AOE: Fashion Design	B.S.		
Fashion Dress and Merchandising - AOE: Fashion Merchandising	B.S.		
Forest Resources Management	B.S.F.		
Horticulture		M.S.	
Horticulture - AOE: Landscape Management	B.S. Agr.		
Horticulture - AOE: Production	B.S. Agr.		
Interior Design - AOE: Contract Design	B.S.		
Interior Design - AOE: Residential Design	B.S.		
Landscape Architecture	B.S.L.A.	M.L.A.	
Multidisciplinary Studies	B.M.D.S.		
Nutrition and Food Science		M.S.	
Plant Pathology		M.S.	

Program	Bachelor's	Master's	Doctoral/Professional
Recreation, Parks, and Tourism Resources		M.S.	
Recreation, Parks, and Tourism Resources - AOE: Adventure Recreation	B.S.R.		
Recreation, Parks, and Tourism Resources - AOE: Park and Outdoor Recreation	B.S.R.		
Recreation, Parks, and Tourism Resources - AOE: Sustainable Tourism	B.S.R.		
Reproductive Physiology		M.S.	Ph.D.
Soil Science - AOE: Land Use	B.S.		
Soil Science - AOE: Watershed Management	B.S.		
Environmental and Energy Resources Management	B.S.		
Wildlife and Fisheries Resources		M.S.	
Wildlife and Fisheries Resources - AOE: Fisheries Sciences	B.S.		
Wildlife and Fisheries Resources - AOE: Planning	B.S.		
Wildlife and Fisheries Resources - AOE: Toxicology	B.S.		
Wildlife and Fisheries Resources - AOE: Wildlife Management	B.S.		
Wildlife and Fisheries Resources - AOE: Wildlife Science	B.S.		
Wood Science and Technology - AOE: Processing	B.S.		
Wood Science and Technology - AOE: Renewable Materials Marketing	B.S.		
Wood Science and Technology - AOE: Sustainable Low-Rise Residential Construction	B.S.		
Wood Science and Technology - AOE: Utilization	B.S.		

EBERLY COLLEGE OF ARTS AND SCIENCES

Program	Bachelor's	Master's	Doctoral/Professional
Biology - AOE: Cellular and Molecular Biology			Ph.D.
Biology - AOE: Environmental Plant Biology			Ph.D.
Biology - AOE: Genomics	B.A., B.S.		
Biology - AOE: Neuroscience	B.A., B.S.		
Biology - AOE: Population Genetics		M.S.	
Chemistry	B.A., B.S.		
Chemistry - AOE: Analytical Chemistry		M.S.	Ph.D.
Chemistry - AOE: Inorganic Chemistry		M.S.	Ph.D.
Chemistry - AOE: Organic Chemistry		M.S.	Ph.D.
Chemistry - AOE: Physical Chemistry		M.S.	Ph.D.

Program			
Chemistry - AOE: Theoretical Chemistry		M.S.	Ph.D.
Communication Studies			Ph.D.
Communication Studies - AOE: Communication in Instruction		M.A.	
Communication Studies - AOE: Communication Theory and Research		M.A.	
Communication Studies - AOE: Corporate and Organizational Communication		M.A.	
Communication Studies - AOE: Health Communication	B.A.		
Communication Studies - AOE: Integrated Communication	B.A.		
Communication Studies - AOE: Interpersonal Communication	B.A.		
Communication Studies - AOE: Social Media and Communication Technology	B.A.		
Communication Studies - AOE: Strategic/Organizational Communication	B.A.		
Computational Statistics			Ph.D.
Creative Writing		M.F.A.	
Criminology	B.A.		
Economics	B.A.		
English - AOE: Creative Writing	B.A.		
English - AOE: Literary/Cultural Studies		M.A.	Ph.D.
English - AOE: Professional Writing and Editing	B.A.		
English - AOE: Writing		M.A.	
English/Secondary Education	B.A.		
Environmental Geoscience	B.A.		
Forensic and Investigative Science		M.S.	
Forensic and Investigative Science - AOE: Forensic Biology	B.S.		
Forensic and Investigative Science - AOE: Forensic Chemistry	B.S.		
Forensic and Investigative Science - AOE: Forensic Examiner	B.S.		
Geography - AOE: Energy and Environmental Resources		M.A.	
Geography - AOE: Geographic Information Systems			Ph.D.
Geography - AOE: Geographic Information Science	B.A.		
Geography - AOE: Geography-Regional Development			Ph.D.
Geography - AOE: GIS/Cartographic Analysis		M.A.	
Geography - AOE: Global Environmental Change	B.A.		
Geography - AOE: Globalization and Development	B.A.		

Geography - AOE: Regional Development and Urban Planning		M.A.	
Geography - AOE: Urban and Regional Planning	B.A.		
Geology	B.S.		
Geology - AOE: Geomorphology			Ph.D.
Geology - AOE: Geophysics			Ph.D.
Geology - AOE: Hydrology			Ph.D.
Geology - AOE: Paleontology			Ph.D.
Geology - AOE: Petrology			Ph.D.
Geology - AOE: Professional Studies		M.S.	
Geology - AOE: Research		M.S.	
Geology - AOE: Stratigraphy			PH.D.
Geology - AOE: Structure			Ph.D.
History	B.A.		
History - AOE: African History		M.A.	Ph.D.
History - AOE: American History		M.A.	Ph.D.
History - AOE: Appalachian/Regional History		M.A.	Ph.D.
History - AOE: East Asian History		M.A.	Ph.D.
History - AOE: European History		M.A.	Ph.D.
History - AOE: Latin American History		M.A.	
History - AOE: Public History		M.A.	
Individualized Studies	B.A.		
Industrial Mathematics and Statistics	B.S.		
Interdisciplinary Studies	B.A.		
International Studies - AOE: Africa and Middle East	B.A.		
International Studies - AOE: Asia	B.A.		
International Studies - AOE: Developmental Studies	B.A.		
International Studies - AOE: Diplomacy and International Security	B.A.		
International Studies - AOE: Europe	B.A.		
International Studies - AOE: Intelligence and National Security	B.A.		
International Studies - AOE: International Business	B.A.		
International Studies - AOE: International Environment	B.A.		
International Studies - AOE: The Americas	B.A.		
Latin American Studies	B.A.		
Legal Studies		M.L.S.	
Mathematics	B.A., B.S.		
Mathematics - AOE: Applied Mathematics		M.S.	Ph.D.
Mathematics - AOE: Discrete Mathematics			Ph.D.
Mathematics - AOE: Interdisciplinary Mathematics		M.S.	
Mathematics - AOE: Mathematics for Secondary Education		M.S.	

Mathematics - AOE: Pure Mathematics		M.S.	
Mathematics/Secondary Education	B.A.		
Multidisciplinary Studies	B.M.D.S.		
Philosophy - AOE: Pre-Law	B.A.		
Physics - AOE: Applied Physics	B.A., B.S.	M.S.	Ph.D.
Physics - AOE: Astrophysics		M.S.	Ph.D.
Physics - AOE: Astro/Space Physics	B.A., B.S.		
Physics - AOE: Biophysics	B.A., B.S.		
Physics - AOE: Chemical Physics		M.S.	Ph.D.
Physics - AOE: Computational Physics	B.A., B.S.		
Physics - AOE: Condensed Matter Physics		M.S.	Ph.D.
Physics - AOE: Elementary Particle Physics		M.S.	Ph.D.
Physics - AOE: Materials Physics		M.S.	Ph.D.
Physics - AOE: Materials Science	B.A., B.S.		
Physics - AOE: Medical Physics	B.A., B.S.		
Physics - AOE: Plasma Physics		M.S.	Ph.D.
Physics - AOE: Solid State Physics		M.S.	Ph.D.
Physics - AOE: Statistical Physics		M.S.	Ph.D.
Physics - AOE: Theoretical Physics		M.S.	Ph.D.
Political Science - AOE: American Politics and Policy	B.A.		
Political Science - AOE: American Public Policy and Politics		M.A.	
Political Science - AOE: General	B.A.		
Political Science - AOE: Government and Business	B.A.		
Political Science - AOE: International and Comparative Public Policy and U.S. Politics		M.A.	
Political Science - AOE: International Relations, Comparative Politics, and National Security	B.A.		
Political Science - AOE: Political Science			Ph.D.
Political Science - AOE: Pre-Law and Legal Studies	B.A.		
Political Science - AOE: Public Policy Analysis			Ph.D.
Professional Writing and Editing		M.A.	
Psychology	B.A., B.S.		
Psychology - AOE: Behavior Analysis			Ph.D.
Psychology - AOE: Behavioral Neuroscience			Ph.D.
Psychology - AOE: Clinical Child Psychology			Ph.D.
Psychology - AOE: Clinical Psychology		M.A., M.S.	Ph.D.
Psychology - AOE: Life Span Development			Ph.D.
Public Administration - AOE: Health Care Administration		M.P.A.	

Public Administration - AOE: Local Governance and Community Development		M.P.A
Religious Studies	B.A.	
Slavic and East European Studies	B.A.	
Social Studies/Secondary Education	B.A.	
Social Work	B.S.W.	
Social Work - AOE: Community Organizing and Social Administration		M.S.W.
Social Work - AOE: Direct Practice		M.S.W.
Sociology		M.A.
Sociology and Anthropology - AOE: Anthropology	B.A.	
Sociology and Anthropology - AOE: Sociology	B.A.	
Statistics		M.S.
Women's and Gender Studies	B.A.	
World Languages, Literature, and Linguistics - AOE: Chinese Studies	B.A.	
World Languages, Literature, and Linguistics - AOE: French	B.A.	M.A.
World Languages, Literature, and Linguistics - AOE: French/Linguistics		M.A.
World Languages, Literature, and Linguistics - AOE: French/Spanish		M.A.
World Languages, Literature, and Linguistics - AOE: French/TESOL		M.A.
World Languages, Literature, and Linguistics - AOE: German	B.A.	
World Languages, Literature, and Linguistics - AOE: Italian Studies	B.A.	
World Languages, Literature, and Linguistics - AOE: Linguistics		M.A.
World Languages, Literature, and Linguistics - AOE: Linguistics/French		M.A.
World Languages, Literature, and Linguistics - AOE: Linguistics/ Spanish		M.A.
World Languages, Literature, and Linguistics - AOE: Linguistics/TESOL		M.A.
World Languages, Literature, and Linguistics - AOE: Russian Studies	B.A.	
World Languages, Literature, and Linguistics - AOE: Spanish	B.A.	M.A.
World Languages, Literature, and Linguistics - AOE: Spanish/French		M.A.
World Languages, Literature, and Linguistics - AOE: Spanish/ Linguistics		M.A.
World Languages, Literature, and Linguistics - AOE: Spanish/TESOL		M.A.
World Languages, Literature, and Linguistics - AOE: TESOL		M.A.
World Languages, Literature, and Linguistics - AOE: TESOL/French		M.A.

Program	Bachelor's	Master's	Doctoral/Professional
World Languages, Literature, and Linguistics - AOE: TESOL/Linguistics		M.A.	
World Languages, Literature, and Linguistics - AOE: TESOL/Spanish		M.A.	
World Languages/Secondary Education	B.A.		

COLLEGE OF BUSINESS AND ECONOMICS

Program	Bachelor's	Master's	Doctoral/Professional
Accounting			Ph.D.
Accounting - AOE: Entrepreneurship	B.S.B.Ad.		
Accounting - AOE: Global Supply Chain Management	B.S.B.Ad.		
Business Administration - AOE: Business Data Analytics		M.B.A.	
Business Administration - AOE: Energy Finance		M.B.A.	
Business Administration - AOE: Finance		M.B.A.	
Business Administration - AOE: Forensic Accounting and Fraud Examination		M.B.A.	
Business Administration - AOE: Human Resources		M.B.A.	
Economics		M.A.	
Economics - AOE: Entrepreneurship	B.S.		
Economics - AOE: Global Supply Chain Management	B.S.		
Economics - AOE: Health Economics			Ph.D.
Economics - AOE: International Economics			Ph.D.
Economics - AOE: Monetary Economics			Ph.D.
Economics - AOE: Public Economics			Ph.D.
Economics - AOE: Regional & Urban Economics			Ph.D.
Economics - AOE: Resource Economics			Ph.D.
Finance		M.B.A.	Ph.D.
Finance - AOE: Energy		M.S.	
Finance - AOE: Entrepreneurship	B.S.B.Ad.		
Finance - AOE: Global Supply Chain Management	B.S.B.Ad.		
Forensic and Fraud Examination		M.S.	
General Business - AOE: Entrepreneurship	B.S.B.Ad.		
General Business - AOE: Global Supply Chain Management	B.S.B.Ad.		
Hospitality and Tourism Management - AOE: Entrepreneurship	B.S.B.Ad.		
Hospitality and Tourism Management - - AOE: Global Supply Chain Management	B.S.B.Ad.		
Industrial Relations		M.S.	
Marketing			Ph.D.

Marketing - AOE: Entrepreneurship	B.S.B.Ad.		
Marketing - AOE: Global Supply Chain Management	B.S.B.Ad.		
Management			Ph.D.
Management - AOE: Entrepreneurship	B.S.B.Ad.		
Management - AOE: Human Resource Management	B.S.B.Ad.		
Management - AOE: International Business	B.S.B.Ad.		
Management - AOE: Supply Chain Managrment	B.S.B.Ad.		
Management Information Systems - AOE: Entrepreneurship	B.S.B.Ad.		
Management Information Systems - AOE: Global Supply Chain Management	B.S.B.Ad.		
Professional Accountancy		M.P.A.	

COLLEGE OF CREATIVE ARTS

Program	Bachelor's	Master's	Doctoral/Professional
Acting	B.F.A.	M.F.A.	
Art Education		M.A.	
Art Education - AOE: Ceramics	B.F.A.		
Art Education - AOE: Graphic Design	B.F.A.		
Art Education - AOE: Intermedia/ Photography	B.F.A.		
Art Education - AOE: Painting	B.F.A.		
Art Education - AOE: Printmaking	B.F.A.		
Art Education - AOE: Sculpture	B.F.A.		
Art History	B.A.	M.A.	
Ceramics	B.F.A.	M.F.A.	
Collaborative Piano		M.M.	D.M.A.
Composition		M.M.	D.M.A.
Conducting		M.M.	D.M.A.
Costume Design and Technology		M.F.A.	
Dance	B.A.		
Graphic Design	B.F.A.	M.F.A.	
Intermedia/Photography	B.F.A.	M.F.A.	
Lighting Design and Technology		M.F.A.	
Multidisciplinary Studies	B.M.D.S.		
Music	B.A.		
Music Composition	B.M.		
Music Education	B.M.	M.M.	Ph.D.
Music History		M.M.	
Music Industry		M.A.	
Music Performance: Jazz Pedagogy		M.M.	
Music Performance: Jazz Studies	B.M.		
Music Performance: Piano - AOE: Coaching/Accompanying	B.M.		
Music Performance: Piano - AOE: Jazz	B.M.		
Music Performance: Piano - AOE: Pedagogy	B.M.		

Music Performance: Piano - AOE: Traditional	B.M.		
Music Performance: Woodwinds	B.M.		
Music Performance: Voice	B.M.		
Music Theory		M.M.	
Musical Theatre	B.F.A.		
Painting	B.F.A.	M.F.A.	
Performance		M.M.	D.M.A.
Piano Pedagogy		M.M.	
Printmaking	B.F.A.	M.F.A.	
Puppetry and Creative Drama	B.F.A.		
Scenic Design and Technology		M.F.A.	
Sculpture	B.F.A.	M.F.A.	
Studio Art		M.A.	
Technical Direction		M.A.	
Theatre	B.A.		
Theatre Design and Technology	B.F.A.		
Vocal Pedagogy and Performance			D.M.A

SCHOOL OF DENTISTRY

Program	Bachelor's	Master's	Doctoral/Professional
Dental Hygiene	B.S.	M.S.	
Dentistry			D.D.S.
Endodontics		M.S.	
Orthodontics		M.S.	
Periodontics		M.S.	
Prosthodontics		M.S.	

COLLEGE OF EDUCATION AND HUMAN SERVICES

Program	Bachelor's	Master's	Doctoral/Professional
Audiology			Au.D.
Autism Spectrum Disorders - AOE: Autism 5-Adult		M.A.	
Autism Spectrum Disorders - AOE: Autism K-6		M.A.	
Child Development and Family Studies - AOE: Child Development	B.S.		
Child Development and Family Studies - AOE: Family and Youth Studies	B.S.		
Child Development and Family Studies - AOE: Pre-school Education - Birth-Age 4	B.S.		
Child Development and Family Studies - AOE: Preschool Special Needs-PreK-K	B.S.		
Clinical Rehabilitation and Mental Health Counseling		M.S.	
Communication Sciences and Disorders			Ph.D.
Counseling - AOE: Community Agency Counseling		M.A.	
Counseling - AOE: School Counseling		M.A.	

Counseling Psychology			Ph.D.
Curriculum and Instruction			Ed.D.
Early Childhood Education - AOE: Early Childhood, PreK-K		M.A.	
Early Intervention/Early Childhood Special Education - AOE: Pre-school Special Needs PreK-K		M.A.	
Education - AOE: Curriculum, Literacy, and Cultural Studies			Ph.D.
Education - AOE: Educational Leadership and Policy Studies			Ph.D.
Education - AOE: Human Development and Family Studies			Ph.D.
Education - AOE: Learning, Instructional Design, and Technology			Ph.D.
Educational Leadership/Public School Administration			Ed.D.
Educational Psychology			Ed.D.
Educational Leadership/Public School Administration		M.A.	
Educational Psychology - AOE: Child Development and Family Studies		M.A.	
Educational Psychology - AOE: Educational Psychology		M.A.	
Elementary Education	B.A.	M.A.	
Elementary Education - AOE: Early Childhood Education, PreK-K	B.M.D.S.		
Elementary Education - AOE: English Education	B.M.D.S.		
Elementary Education - AOE: General Science	B.M.D.S		
Elementary Education - AOE: Mathematics Education	B.M.D.S.		
Elementary Education - AOE: Multicategorical Special Education K-6 + 5-Adult	B.M.D.S		
Elementary Education - AOE: Social Studies	B.M.D.S.		
Elementary Education - AOE: World Language Education	B.M.D.S.		
Elementary Education/MDS - AOE: Early Childhood Education , PreK-K		M.A.	
Elementary Education/MDS - AOE: English Education		M.A.	
Elementary Education/MDS - AOE: General Science		M.A.	
Elementary Education/MDS - AOE: Mathematics Education		M.A.	
Elementary Education/MDS - AOE: Multicategorical Special Education K-6 + 5-Adult		M.A.	
Elementary Education/MDS - AOE: Social Studies		M.A.	
Elementary Education/MDS - AOE: World Language Education		M.A.	
Gifted Education - AOE: Gifted 1-12		M.A.	

Higher Education Administration		M.A.	Ed.D.
Higher Education Curriculum and Teaching		M.A.	
Instructional Design & Technology		M.A.	Ed.D.
Literacy Education		M.A.	
Low Vision/Blindness - AOE: Visual Impairments PreK-Adult		M.A.	
MDS-Education/Human Services	B.M.D.S.		
Multicategorical Special Education - AOE: Multicategorical Special Education K-6		M.A.	
Multicategorical Special Education - AOE: Multicategorical Special Education 5-Adult		M.A.	
Secondary Education - AOE: Biology and Integrated Science	B.M.D.S.		
Secondary Education - AOE: Biology Education		M.A.	
Secondary Education - AOE: Chemistry and Integrated Science	B.M.D.S.		
Secondary Education - AOE: Chemistry Education		M.A.	
Secondary Education - AOE: English Education		M.A.	
Secondary Education - AOE: General Science Education		M.A.	
Secondary Education - AOE: Physics and Integrated Science	B.M.D.S.		
Secondary Education - AOE: Social Studies Education		M.A.	
Secondary Education - AOE: World Language Education		M.A.	
Secondary Education - AOE: Math Education		M.A.	
Secondary Education - AOE: Physics Education		M.A.	
Secondary Education - AOE: Secondary Education/Advanced		M.A.	
Secondary Education - AOE: Secondary Education		M.A.	
Secondary Education/Advanced - AOE: Secondary Education/Advanced/Science		M.A.	
Secondary Education/Advanced - AOE: Secondary Education/Advanced/Social Studies		M.A.	
Secondary Education/English		M.A.	
Secondary Education/Mathematics		M.A.	
Secondary Education/Social Studies		M.A.	
Secondary Education/World Languages		M.A.	
Secondary Education/MDS - AOE: Biology and Integrated Science		M.A.	
Secondary Education/MDS - AOE: Chemistry and Integrated Science		M.A.	

Secondary Education/MDS - AOE: Physics and Integrated Science		M.A.	
Severe/Multiple Disabilities - AOE: Severe Disabilities K-Adult		M.A.	
Special Education - AOE: Applied Behavior Analysis		M.A.	
Special Education - AOE: Personnel Preparation in Special Education			Ed.D
Special Education - AOE: School Leadership in Special Education			Ed.D.
Speech Pathology		M.S.	
Speech Pathology and Audiology	B.S.		

BENJAMIN M. STATLER COLLEGE OF ENGINEERING AND MINERAL RESOURCES

Program	Bachelor's	Master's	Doctoral/Professional
Aerospace Engineering	B.S.A.E.	M.S.A.E.	Ph.D.
Biomedical Engineering	B.S.Bm.E.		
Biometric Systems - AOE: DNA/Molecular Biology	B.S.B.S.		
Biometric Systems - AOE: Microsensors and Circuits	B.S.B.S.		
Biometric Systems - AOE: Signal Processing	B.S.B.S.		
Biometric Systems - AOE: Statistics	B.S.B.S.		
Biometric Systems - AOE: Software Systems	B.S.B.S.		
Chemical Engineering	B.S.Ch.E.	M.S.Ch.E.	Ph.D.
Civil Engineering	B.S.C.E.	M.S.C.E.	Ph.D.
Computer Engineering	B.S.Cp.E.		Ph.D.
Computer Science	B.S.C.S.		Ph.D.
Computer Science - AOE: Biometrics and Information Assurance		M.S.C.S.	
Electrical Engineering	B.S.E.E.	M.S.E.E.	Ph.D.
Energy Systems Engineering		M.S.E.S.E.	
Engineering		M.S.E.	
Industrial Engineering	B.S.I.E.	M.S.I.E.	Ph.D.
Industrial Hygiene		M.S.	
Material Science and Engineering			Ph.D.
Material Science and Engineering - AOE: Chemical Engineering Materials		M.S.M.S.E.	
Material Science and Engineering - AOE: Electrical Engineering Materials		M.S.M.S.E.	
Material Science and Engineering - AOE: Mechanical Engineering Materials		M.S.M.S.E.	
Mechanical Engineering	B.S.M.E.	M.S.M.E.	Ph.D.
Mining Engineering	B.S.Min.E.	M.S.Min.E.	Ph.D.
Occupational Safety and Health			Ph.D.
Petroleum and Natural Gas Engineering	B.S.PNGE.	M.S.PNGE.	Ph.D.
Safety Management - AOE: Environmental Management		M.S.	

Program	Bachelor's	Master's	Doctoral/Professional
Software Engineering - AOE: Biometrics and Information Assurance		M.S.S.E.	

COLLEGE OF LAW

Program	Bachelor's	Master's	Doctoral/Professional
Energy Law and Sustainable Development		LL.M.	
Forensic Justice		LL.M.	
Law - AOE: Energy and Sustainable Development Law			J.D.
Law - AOE: International Law			J.D.
Law - AOE: Labor and Employment Law			J.D.
Law - AOE: Public Interest Law			J.D.

REED COLLEGE OF MEDIA

Program	Bachelor's	Master's	Doctoral/Professional
Integrated Marketing Communications		M.S.	
Journalism	B.S.J.	M.S.J.	
Multidisciplinary Studies	B.A.		
Strategic Communications - AOE: Advertising	B.S.J.		
Strategic Communications - AOE: Public Relations	B.S.J.		

SCHOOL OF MEDICINE

Program	Bachelor's	Master's	Doctoral/Professional
Biochemistry and Molecular Biology			Ph.D.
Biomedical Sciences		M.S.	
Cancer Cell Biology			Ph.D.
Cellular and Integrative Physiology			Ph.D.
Clinical and Translational Science		M.S.	Ph.D.
Exercise Physiology		M.S.	Ph.D.
Exercise Physiology - AOE: Aquatic Therapy	B.S.		
Exercise Physiology - AOE: Health Professions	B.S.		
Health Sciences		M.S.	
Immunology and Medical Microbiology	B.S.		
Immunology and Microbial Pathogenesis			Ph.D.
Medical Laboratory Science - AOE: Clinical Laboratory Science	B.S.		
Medical Laboratory Science - AOE: Histotechnology	B.S.		
Medicine			M.D.
Neuroscience			Ph.D.
Occupational Therapy		M.O.T.	
Pathologist's Assistant		M.H.S.	
Physical Therapy			D.P.T.

SCHOOL OF NURSING

Program	Bachelor's	Master's	Doctoral/Professional
Nursing	B.S.N.		D.N.P., Ph.D.
Nursing - Nursing RN	B.S.N.		
Nursing - AOE: Family Nurse Practitioner		M.S.N.	
Nursing - AOE: Geriatric Nurse Practitioner		M.S.N.	
Nursing - AOE: Neonatal Nurse Practitioner		M.S.N.	
Nursing - AOE: Nursing Leadership		M.S.N.	
Nursing - AOE: Pediatric Nurse Practitioner		M.S.N.	
Nursing - AOE: Women's Health Nurse Practitioner		M.S.N.	

SCHOOL OF PHARMACY

Program	Bachelor's	Master's	Doctoral/Professional
Pharmaceutical and Pharmacological Sciences			Ph.D.
Pharmacy - AOE: Clinical Pharmacy Practice			Pharm.D.
Pharmacy - AOE: Pharmacy Research			Pharm.D.

COLLEGE OF PHYSICAL ACTIVITY AND SPORTS SCIENCE

Program	Bachelor's	Master's	Doctoral/Professional
Athletic Coaching Education	B.S.		
Athletic Training	B.S.	M.S.	
Coaching and Sport Education - AOE: Performance Coaching		M.S.	
Coaching and Sport Education - AOE: Science of Coaching		M.S.	
Coaching and Teaching Studies			Ed.D./Ph.D.
Physical Education-Teacher Education	B.S.	M.S.	
Sport and Exercise Psychology	B.S.	M.S.	Ph.D.
Sport Coaching		M.S.	
Sport Management	B.S.	M.S.	

SCHOOL OF PUBLIC HEALTH

Program	Bachelor's	Master's	Doctoral/Professional
Biostatistics		M.P.H., M.S.	Ph.D.
Epidemiology		M.P.H.	Ph.D.
Health Policy - AOE: Applied Public Health Management		M.P.H.	
Health Policy – AOE: Worksite Wellness		M.P.H.	
Occupational and Environmental Health Sciences – AOE: Worksite Wellness		M.P.H.	Ph.D.
Public Health	B.S.		
Public Health - AOE: Public Health Practice		M.P.H.	

School Health Education		M.S.	
Social and Behavioral Sciences – AOE: Worksite Wellness		M.P.H.	Ph.D.
Social and Behavioral Sciences – AOE: Public Health Practice		M.P.H.	

UNIVERSITY COLLEGE

Program	Bachelor's	Master's	Doctoral/Professional
Biochemistry	B.S.		
Human Performance and Health	B.A.		
Multidisciplinary Studies	B.M.D.S.		
Regents Bachelor of Arts - AOE: Advertising	R.B.A		
Regents Bachelor of Arts - AOE: American History	R.B.A.		
Regents Bachelor of Arts - AOE: Business Administration	R.B.A.		
Regents Bachelor of Arts - AOE: Child Development	R.B.A.		
Regents Bachelor of Arts - AOE: Chinese Studies	R.B.A.		
Regents Bachelor of Arts - AOE: Communication Studies	R.B.A.		
Regents Bachelor of Arts - AOE: Creative Writing	R.B.A.		
Regents Bachelor of Arts - AOE: Economics	R.B.A.		
Regents Bachelor of Arts - AOE: Foreign Literature in Translation	R.B.A.		
Regents Bachelor of Arts - AOE: French	R.B.A.		
Regents Bachelor of Arts - AOE: Geology	R.B.A.		
Regents Bachelor of Arts - AOE: German	R.B.A.		
Regents Bachelor of Arts - AOE: History	R.B.A.		
Regents Bachelor of Arts - AOE: International Studies-African and Middle East	R.B.A.		
Regents Bachelor of Arts - AOE: International Studies-Asia	R.B.A		
Regents Bachelor of Arts - AOE: International Studies-Development Studies	R.B.A.		
Regents Bachelor of Arts - AOE: International Studies-Europe	R.B.A.		
Regents Bachelor of Arts - AOE: International Studies-The America's	R.B.A.		
Regents Bachelor of Arts - AOE: Italian Studies	R.B.A.		
Regents Bachelor of Arts - AOE: Japanese Studies	R.B.A.		
Regents Bachelor of Arts - AOE: Linguistics	R.B.A.		

Regents Bachelor of Arts - AOE: Literature	R.B.A.
Regents Bachelor of Arts - AOE: Philosophy	R.B.A.
Regents Bachelor of Arts - AOE: Professional Writing	R.B.A.
Regents Bachelor of Arts - AOE: Psychology	R.B.A.
Regents Bachelor of Arts - AOE: Public Relations	R.B.A.
Regents Bachelor of Arts - AOE: Religious Studies	R.B.A.
Regents Bachelor of Arts - AOE: Russian Studies	R.B.A.
Regents Bachelor of Arts - AOE: Sociology	R.B.A.
Regents Bachelor of Arts - AOE: Spanish	R.B.A.
Regents Bachelor of Arts - AOE: Teaching English as a Second Language	R.B.A.
Regents Bachelor of Arts - AOE: Women's and Gender Studies	R.B.A.

Graduate Certificate Programs

Academic Affairs

- University Teaching

Arts & Sciences - Eberly College of

- Applied Statistics
- Cultural Resource Management
- Integrated Mental and Behavioral Health
- Gerontology
- Healthcare Administration
- Nonprofit Management
- Women's and Gender Studies

Business and Economics - College of

- Forensic Accounting and Fraud Examination

Education and Human Sciences - College of

- Health Professions Education
- Interdisciplinary Certificate in Disability Studies
- Public School Administration - Instructional Supervisor Preparation
- Public School Administration - Principal Preparation
- Public School Administration - Superintendent Preparation

Engineering and Mineral Resources - Benjamin M. Statler College of

- Computer Forensics
- Information Assurance and Biometrics
- Interactive Technologies and Serious Gaming
- Software Engineering

Media - Reed College of

- Digital Marketing Communications

- Integrated Marketing Communications

Medicine - School of

- Clinical and Translational Science
- Emergency Medicine

Nursing - School of

- Post-MSN Certificate
- Post-MSN Certificate FNP
- Post-MSN Certificate GNP
- Post-MSN Certificate Leadership
- Post-MSN Certificate NNP
- Post-MSN Certificate PNP
- Post-MSN Certificate WHNP

Public Health - School of

- Applied Biostatistics
- Women's Health

Multiple Graduate Degrees

University policy permits students to obtain more than one WVU graduate degree either simultaneously or sequentially. See the section on *Course Credit Limitations* for limits on the use of credits for more than one program.

Approved Dual Degree Programs

West Virginia University offers several approved dual degree programs. Approved dual degree programs are programs in which certain courses or credits are accepted for credit by each program. Students in such programs must also successfully complete any specific program requirements. Students should contact the individual units regarding admission and academic requirements and regulations for these approved dual degree programs.

Approved Dual Degree Programs:

- Doctor of Dental Surgery/Master of Public Health
- Doctor of Dental Surgery/Master of Business Administration
- Doctor of Jurisprudence/Master of Business Administration
- Doctor of Jurisprudence/Master of Professional Accountancy
- Doctor of Medicine/Master of Public Health
- Doctor of Medicine/Master of Business Administration
- Doctor of Medicine/Doctor of Philosophy
- Doctor of Pharmacy/Master of Business Administration
- Masters of Professional Accountancy/Master of Social Work
- Master of Business Administration/Master of Science in Finance
- Master of Business Administration/Master of Science in Industrial Relations
- Master of Business Administration/Master of Science in Sports Management
- Master of Public Health/Doctor of Philosophy in Psychology
- Master of Public Health/Master of Business Administration

In this section:

- Course Credit Limitations
- Credit Hour Definition

Course Credit Limitations

Credit toward a graduate degree may be obtained only for courses listed in the graduate catalog and numbered 400–799. No more than forty percent of course credits counted toward any graduate degree may be at the 400-level. No residence credit is allowed for special field assignments or other work taken off the WVU campus without prior approval. Graduate credit is obtained only for courses in which the grade earned is A, B, C, P or S. Courses taken as audits or courses in which the grade earned is D, F, or U may not count toward a graduate degree.

A maximum of 12 credits earned prior to admission to a degree program, or earned during enrollment in a degree program but simultaneously applied to an additional degree, may be applied to any degree. See also the Academic Certificate Matriculation and Award Policy (p. 35) that limits on the use of credits earned as part of a certificate program. Individual programs may allow a smaller maximum number of such previously or simultaneously earned credit hours to be applied to their degree program as a general rule and may determine which courses and credits may or may not be applied to their degree program by an individual student. Doctoral programs that require or allow students to earn a master's degree in the same discipline (with simultaneous enrollment in both) may count the courses earned in the master's degree program toward the doctoral program. Some approved dual degree programs are allowed to share more than 12 credits.

Credit Hour Definition

West Virginia University courses offered for credit are based on semester hours. Semesters are fifteen weeks long plus one week for final exams. A single credit hour is equivalent to fifty minutes of guided instruction within the classroom. An hour of preparation, or related activity outside of the classroom, is equivalent to sixty minutes.

FACE-TO-FACE CLASSROOM LEARNING

One credit hour is equivalent to one hour of guided instruction (fifty minute class) and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or the equivalent amount of work over a different amount of time such as during the summer sessions, which may vary in duration. One credit hour in other academic activities, as established by the institution, including laboratory work, internships, practicums, studio work, study abroad, experiential learning opportunities, online learning, and other academic work must include an equivalent amount of required work listed in the preceding paragraph and is outlined in more detail below.

ONLINE CLASSROOM LEARNING

One credit hour of online learning is equivalent to fifteen hours of direct instruction and thirty hours of student work. Direct instruction can occur via computer-assisted (modules), multi-media interaction, discussions, and/or completion of exams/quizzes/assessments as documented in the course syllabus and approved to meet best practices in online learning. Student work includes activities like readings and supplemental home work. Students must fulfill these hours to complete the course requirements as set forth by the course instructor. Online courses developed from existing face-to-face instruction adhere to the defined learning outcomes and assessments of the original face-to-face format for the course. All WVU online programs are reviewed for nationally accepted standards for online learning.

EXPERIENTIAL LEARNING

In experiential learning, including opportunities representing laboratory/lecture courses, undergraduate research (with or without laboratory), professional development internships, and service learning, a total of three hours of classroom and preparation time per week over a period of fifteen weeks for one credit hour or the equivalent amount of work over a shorter period of time is required. Courses must incorporate adequate opportunities to document student progress and student completion of the stated learning objectives for each experience.

STUDY ABROAD

One credit hour is equivalent to fifteen hours of guided instruction and thirty hours of cultural, linguistic or other types of engagements as described by the syllabus and approved by the faculty, department Chair, Dean, and Associate Provost. Exceptions to this general rule would need to be justified and approved on an individual basis.

STUDIO/ENSEMBLE WORK

In studio courses representing the arts, design, and theatre, one credit hour is equivalent to one and a half hours of guided instruction and three hours for studio class preparation each week for fifteen weeks as defined by the National Association of Schools of Art and Design (NASAD). In accordance with the National Association of Schools of Music standards, one credit hour of ensemble work in the music field represents three hours of practice each week, on average, for a period of fifteen weeks plus the necessary individual instruction as defined by the major subject.

VARIABLE CREDIT OFFERINGS

Variable credit courses often represent student experiences that range in contact hours based on the focus and discipline of the experience. Practicums (teaching and research), field experience, undergraduate and graduate research and laboratory rotations and credit, and independent studies offer a range of contact. One credit hour is equivalent to fifteen contact hours of guided instruction (e.g., student progress meetings, assessment) and thirty hours of student work to complete the requirements set forth by the advisor or course instructor (e.g., team meetings, review sessions, thesis/dissertation preparation) over a fifteen week period. Instructors/mentors and students should discuss the appropriate number of total credit hours for a given course based on the time needed to attain outcomes of the particular endeavor.

Tuition, Fees & Residency

COST:

- Cost of an Academic Year's Work
- Tuition and Fees

- Identification Card

RESIDENCY:

- Residency Classification

COMMON MARKET:

- Academic Common Market

REGULATIONS:

- Tuition and Fee Regulations
- Refund of Tuition and Fees
- Non-Sufficient Funds Check Policy

In this section:

Cost of an Academic Year's Work

The WVU Financial Aid Office provides an estimate of the total cost of attendance for an academic year at financialaid.wvu.edu/tuition-cost-information/cost-of-attendance. This estimate includes tuition and fees, books and supplies, off-campus room and board, transportation, and personal expenses in amounts designed to provide a modest, but adequate, lifestyle for students.

Tuition and Fees

Tuition and fee structures vary by residency classification and academic program at WVU. Current tuition and fee costs can be found at financialservices.wvu.edu/home/wvu-tuition-and-fees. Students are charged for University tuition, College/School tuition, and University fees. In some cases, students are charged different rates for Extended Learning courses or programs. Senior citizens of West Virginia (age 65 and older) who meet WVU residency requirements may take courses at WVU for reduced tuition and fees. All West Virginia University tuition and fees are subject to change without notice.

Identification Card

Students registered for the current semester are eligible for an identification card (Mountaineer Card). The Mountaineer Card gives access to certain activities and privileges on campus. Students have free access to the Student Recreation Center, the PRT, and athletic events, and may ride the local bus system (MountainLine) by using their ID card. On- and off-campus students have access to the WVU Libraries. WVU reserves the right to refuse issuance of an identification card and misuse may result in confiscation of the card. Lost or broken cards can be replaced for a fee. For more information about the Mountaineer Card visit wvucard.wvu.edu/.

Residency Classification

Residency policy is established by the WV Higher Education Policy Commission Series 25, which is posted at admissions.wvu.edu/admissions/residency/hep-25. The WVU Office of Admissions assigns students a residency classification for admission, tuition, and fee purposes. Students who are legal residents of West Virginia pay "resident" tuition and fees at WVU; students who are residents of other states and nations pay "non-resident" tuition and fees. Further information on residency classification is at admissions.wvu.edu/admissions/residency.

Academic Common Market

West Virginia University participates in the Academic Common Market (ACM) of the Southern Regional Education Board (SREB). The Academic Common Market is a tuition-savings program for college students in the 16 SREB member states who want to pursue degrees that are not offered by their in-state institutions. Students can enroll in out-of-state institutions that offer their degree program and pay the institution's in-state tuition rates. Hundreds of undergraduate and graduate programs are available for residents of SREB states. The ACM program is not competitive or merit-based, but applicants must meet state residency and college program requirements.

To qualify, students must be a resident of one of the 16 SREB states, select and plan to enroll in a program eligible for residents of their home state, complete the admission process at the institution offering the eligible ACM program and be certified as a resident of their home state by contacting the coordinator for their state of residence.

Programs may be added to, or deleted from, the inventory at any time due to program availability, curricular, instructional or other needs. Currently enrolled students continue to study at resident rates if a program is deleted during their academic careers.

For further information, contact your state's higher education agency, the Southern Regional Education Board (www.sreb.org (http://www.sreb.org)).

- The ACM eliminates unnecessary duplication of academic programs among participating states, recognizing that it is impractical for any institution or single state to develop or maintain degree programs in every field of knowledge.
- It supports existing degree programs that have the capacity to serve additional students.
- It provides access across state lines for programs not available in a student's home state.
- First-professional degree programs, such as law, medicine, dentistry, pharmacy and optometry, are not offered in the ACM and cannot be requested.
- Some institutions and states may impose additional acceptance requirements, such as full-time enrollment status or GPA requirements.

Wanting to know more about the ACM at WVU? Click on the link: http://undergraduateacademicaffairs.wvu.edu/home/acmatwvu

In this section:

- Tuition and Fee Regulations (p. 56)
- Refund of Tuition and Fees (p. 56)
- Non-Sufficient Funds Check Policy (p. 56)

Tuition and Fee Regulations

All tuition and fees are payable to the Office of Student Accounts prior to the first day of each term. Exceptions and late fee charges are explained at studentaccounts.wvu.edu/billing/late_fee_policy. Students can review their charges, waivers, scholarships, and payments online through the STAR Information System, which can be accessed from MIX at www.mix.wvu.edu. Payments can also be made from the same website. Payments of tuition, fees, and other charges by check, draft, or money order are subject to WVU's Non-Sufficient Funds Check Policy available at adminfin.wvu.edu/policies/finance/financial-services/wvu-co-14-policy. A service charge is collected on each check returned unpaid by the bank upon which it was drawn.

Arrangements can be made with the Office of Student Accounts for payment from officially accepted scholarships, loan funds, grants, or contracts. Students holding graduate assistantships normally are provided with a waiver of University tuition but must pay College/School tuition and University fees. Students holding fellowships may receive waivers or scholarships to cover tuition and fees according to the provisions of the fellowship. Waivers and scholarships will be applied to students' accounts.

WVU places restrictions on students who have outstanding debts to the University. The restriction may include, but is not limited to, the withholding of a student's registration, diploma, or transcript. No degree is conferred and no transcripts are issued to any student before payment is made of all tuition, fees, and other indebtedness to any unit of the University.

Refund of Tuition and Fees

Current information on refunds can be found at studentaccounts.wvu.edu/refunds.

Non-Sufficient Funds Check Policy

Payments of tuition, fees, and other charges by check, draft, or money order are subject to WVU's Non-Sufficient Funds Check Policy available at adminfin.wvu.edu/policies/finance/financial-services/wvu-co-14-policy. A service charge is collected on each check returned unpaid by the bank upon which it was drawn.

Davis College of Agriculture, Natural Resources, and Design

Degrees Offered

- Master of Agriculture with a major in Agriculture, Natural Resources, and Design

SCHOOL OF AGRICULTURE AND FOOD

- Master of Science with a major in Agronomy
- Master of Science with a major in Animal Physiology
- Master of Science with a major in Applied and Environmental Microbiology
- Master of Science with a major in Entomology
- Master of Science with a major in Genetics and Developmental Biology
- Master of Science with a major in Horticulture
- Master of Science with a major in Nutritional and Food Science
- Master of Science with a major in Plant Pathology
- Master of Science with a major in Reproductive Physiology
- Doctor of Philosophy with a major in Animal and Food Science
- Doctor of Philosophy with a major in Genetics and Developmental Biology
- Doctor of Philosophy with a major in Plant and Soil Science
- Doctor of Philosophy with a major in Reproductive Physiology

SCHOOL OF DESIGN AND COMMUNITY DEVELOPMENT

- Master of Landscape Architecture with a major in Landscape Architecture
- Master of Science with a major in Agricultural and Extension Education
- Master of Science with a major in Design and Merchandising
- Doctor of Philosophy with a major in Agricultural and Extension Education

SCHOOL OF NATURAL RESOURCES

- Master of Science in Forestry with a major in Forestry
- Master of Science with a major in Agricultural and Resource Economics
- Master of Science with a major in Recreation, Parks, and Tourism Resources
- Master of Science with a major in Wildlife and Fisheries Resources
- Doctor of Philosophy with a major in Forest Resources Science
- Doctor of Philosophy with a major in Human and Community Development
- Doctor of Philosophy with a major in Natural Resource Economics
- Doctor of Philosophy with a major in Resource Management

The Davis College of Agriculture, Natural Resources, and Design is comprised of three schools: Agriculture and Food, Design and Community Development, and Natural Resources. The college's faculty and staff are located in four buildings on the Evansdale campus; on farms administered by the Davis College of Agriculture, Natural Resources, and Design in Kearneysville, Morgantown, Reedsville, Union, and Wardensville; and at the West Virginia University Forest on nearby Chestnut Ridge.

Students study many different subjects concerned with human behavior, plants, animals, trees, and microorganisms. Curricula in the college stress the life sciences, applied and basic research, and economic and social relationships among people as they live and work in a wide variety of settings. Courses offered in the college give students a comprehensive understanding of the natural environment and resources from which we produce our food, fiber, wood, energy, and leisure activities.

The Davis College of Agriculture, Natural Resources, and Design's research is conducted in the West Virginia Agricultural and Forestry Experiment Station. Research proposals are generated, evaluated, approved, and funded through the Experiment Station. The university controls extensive lands, which are administered by the college, with specific areas set aside for research and teaching purposes in livestock, poultry, forestry, wildlife management, organic production, horticulture, agronomy, entomology, and soils. Graduate students in the Davis College benefit both from a variety of educational and research settings and from extensive opportunities for hands-on learning.

ADMINISTRATION

DEAN

- Daniel J. Robison - Ph.D. (University of Wisconsin-Madison)
  Director, West Virginia Agricultural and Forestry Experiment Station

ASSOCIATE DEAN FOR ACADEMIC AFFAIRS

- Dennis K. Smith - Ph.D. (Pennsylvania State University)

ASSOCIATE DEAN FOR RESEARCH AND OUTREACH

- Tim T. Phipps - Ph.D. (University of California)
  Associate Director, West Virginia Agricultural and Forestry Experiment Station

Degree Designation Learning Goals

MASTER OF AGRICULTURE (MAGR)

The Master of Agriculture, Natural Resources and Design is an interdisciplinary degree that offers advanced study in all areas of agriculture, natural resources, and design. This program provides an opportunity for students to expand on the knowledge and skills they acquired during their undergraduate studies and enables students to tailor their education to fit individual career goals. The Master of Agriculture, Natural Resources and Design may benefit individuals who are seeking a higher paying position, wish to improve chances for admission to a professional school, want to make a career change, start an entrepreneurship, or improve their skills to enhance their current careers.

Students earning an MAGR degree will be able to:

- Communicate professional concepts orally and in writing.
- Explain the holistic nature of opportunities and problems pertaining to agriculture, natural resources, or design.
- Explain the role of inquiry and research in addressing opportunities and problems pertaining to agriculture, natural resources, or design.
- Construct a theoretical framework that addresses a particular opportunity or problem in agriculture, natural resources, or design and generalize that framework to aid in understanding similar opportunities or problems.
- Apply research skills to analyze agriculture, natural resources, or design opportunities or problems.

MASTER OF LANDSCAPE ARCHITECTURE (MLA)

The MLA program provides students with the knowledge necessary to develop the skills and abilities in design, planning, and management that are pivotal to effectiveness and success in the workforce, and that are responsive to the unique qualities of the state and the region. The program prepares students to become effective professionals and citizens by emphasizing a philosophy of responsibility and commitment to ethical standards regarding the natural environment, professional practice, and personal relationships.

Students earning an MLA degree will be able to:

- Demonstrate a solid professional educational foundation that encompasses knowledge and skills of design, construction, problem-solving, plant materials, landscape management, and professional practice and that is responsive to the needs of the environment, society, and the landscape architecture profession.
- Understand ethical standards regarding the environment, the profession, personal relationships, and social responsibility.
- Proficiently communicate professional concepts graphically, orally, and in writing.
- Incorporate professional information through the study of real-life problems in Morgantown, the state of West Virginia, and the region.

MASTER OF SCIENCE (MS)

The Davis College of Agriculture, Natural Resources, and Design offers numerous MS programs.

Students earning an MS degree will be able to:

- Communicate professional concepts orally and in writing.
- Explain the holistic nature of opportunities and problems pertaining to agriculture, natural resources, or design.
- Explain the role of inquiry and research in addressing opportunities and problems pertaining to agriculture, natural resources, or design.
- Construct a theoretical framework that addresses a particular opportunity or problem in agriculture, natural resources, or design and generalize that framework to aid in understanding similar opportunities or problems.
- Apply research skills to analyze agriculture, natural resources, or design opportunities or problems.
- Produce and defend original research in their major area of study.

MASTER OF SCIENCE IN FORESTRY (MSF)

This program prepares students for careers in professional forestry ranging from consulting for private woodland owners to managing vast tracts of public forestlands. Students are trained in life sciences—biology, ecology, tree identification, sustainable forestry—and specialized sciences such as forest biometrics, forest economics, geographic information systems (GIS), and remote sensing of forest resources.

Students earning an MSF degree will be able to:

- Understand taxonomy and identify forest and other tree species, their distribution, and associated vegetation and wildlife.
- Understand soil properties and processes, hydrology, water quality, and watershed functions.
- Understand ecological concepts and principles including the structure and function of ecosystems, plant and animal communities, competition, diversity, population dynamics, succession, disturbance, and nutrient cycling.
- Demonstrate the ability to make ecosystem, forest, and stand assessments.
- Understand tree physiology and the effects of climate, fire, pollutants, moisture, nutrients, genetics, insects and diseases on tree and forest health and productivity.
- Identify and measure land areas and conduct spatial analysis.
- Design and implement comprehensive inventories that meet specific objectives using appropriate sampling methods and units of measurement.
- Analyze inventory data and project future forest, stand, and tree conditions.
- Develop and apply silvicultural prescriptions appropriate to management objectives, including methods of establishing and influencing the composition, growth, and quality of forests, and understand the impacts of those prescriptions.
- Analyze the economic, environmental, and social consequences of forest resource management strategies and decisions.
- Develop management plans with specific multiple objectives and constraints.
- Understand valuation procedures, market forces, processing systems, transportation and harvesting activities that translate human demands for timber-based and other consumable forest products into the availability of those products.
- Understand valuation procedures, market, and non-market forces that avail humans the opportunities to enjoy non-consumptive products and services of forests.
- Understand administration, ownership, and organization of forest management enterprises.
- Understand forest policy and the processes by which it is developed.
- Understand how federal, state, and local laws and regulations govern the practice of forestry.
- Understand professional ethics, including the Society of American Foresters Code, and recognition of the responsibility to adhere to ethical standards in forestry decision making on behalf of clients and the public.
- Understand the integration of technical, financial, human resources, and legal aspects of public and private enterprises.
- Communicate professional concepts orally and in writing.
- Explain the holistic nature of forestry opportunities and problems.
- Explain the role of inquiry and research in addressing opportunities and problems pertaining to forestry.
- Construct a theoretical framework that addresses a particular opportunity or problem in forestry and generalize that framework to aid in understanding similar opportunities or problems.
- Apply research skills to analyze forestry opportunities or problems.
- Produce and defend original research in their major area of study within forestry.

DOCTOR OF PHILOSOPHY (PHD)

The Davis College of Agriculture, Natural Resources, and Design offers numerous doctoral programs.

Students earning a doctoral degree will be able to:

- Conduct independent and original research of publishable quality in agriculture or natural resources
- Effectively communicate, orally and in writing, the state of knowledge in the student's discipline, field, sub-field, and specific research area.
- Teach, at any undergraduate level or beyond, core courses in the student's discipline and field and specialized courses in the student's sub-field and research area.
- Write research manuscripts and technical reports that lead to refereed publications.

General Admission Requirements and Information

REGULAR

A regular graduate student is a degree-seeking student who meets all of the criteria for regular admission to a program of his/her choice. The student must possess a baccalaureate degree from a college or university, have at least a grade point average of 2.75 on a 4.0 scale (or an average of 3.0 or higher for the last sixty credit hours), meet all criteria established by the degree program, and be under no requirements to make up deficiencies.

The student must:

- Have an adequate academic aptitude at the graduate level as measured by the Graduate Record Examination (GRE) or the New Medical College Admissions Test (New MCAT).
- Provide three letters of reference from persons acquainted with the applicant's professional work, experience, or academic background.
- Submit a written statement of 500 words or more indicating the applicant's goals and objectives relative to receiving a graduate degree.
- International students have the additional requirement to submit a minimum score of 550 on the paper TOEFL examination or 213 on the electronic TOEFL examination if their native language is not English.
- The specific graduate programs may have additional requirements for admission.

PROVISIONAL

A student may be admitted as a provisional graduate student when the student possesses a baccalaureate degree but does not meet the criteria for regular admission. The student may have incomplete credentials, deficiencies to make up, or may have an undergraduate scholastic record that does not meet grade point requirements for regular admission. After successful fulfillment of the deficiencies, the student will be granted regular graduate student status.

NON-DEGREE

A non-degree student is a student not admitted to a program. Admission as a non-degree student does not guarantee admission to any course or program.

A student must present evidence of a baccalaureate degree. A maximum of twelve credit hours of work as a non-degree student may be applied to a graduate degree if the student is later accepted into a graduate program.

School of Agriculture and Food

Robert L. Taylor, Jr., Division Director of Animal and Nutritional Sciences
e-mail: Bob.Taylor@mail.wvu.edu

Degrees Offered

- Master of Science with a major in Agronomy
- Master of Science with a major in Animal Physiology
- Master of Science with a major in Applied and Environmental Microbiology
- Master of Science with a major in Entomology
- Master of Science with a major in Genetics and Developmental Biology
- Master of Science with a major in Horticulture
- Master of Science with a major in Nutritional and Food Science
- Master of Science with a major in Plant Pathology
- Master of Science with a major in Reproductive Physiology
- Doctor of Philosophy with a major in Animal and Food Science
- Doctor of Philosophy with a major in Genetics and Developmental Biology
- Doctor of Philosophy with a major in Plant and Soil Science
- Doctor of Philosophy with a major in Reproductive Physiology

The master of science allows maximum flexibility in courses and research problems. Students may major in animal & nutritional sciences, animal physiology, or nutrition & food science. They may work with beef and dairy cattle, sheep, swine, poultry, or laboratory animals or with issues in human health and nutrition. Research problems in farm animals, laboratory animals, and human nutrition issues form the basis for many studies, but a comparative approach is emphasized. A master of science degree is available as a thesis or coursework option. The division offers the registered dietetic certification (RD) preparation internship program as a component of the masters of science degree program in animal and nutritional sciences.

FACULTY
DIRECTOR

- Robert L. Taylor, Jr. - Ph.D. (Mississippi State University)
  Professor of Immunology and disease resistance

PROFESSORS

- Alan R. Biggs - Ph.D. (Pennsylvania State University)
  Plant Pathology, Tree Fruits

- Gary K. Bissonnette - Ph.D. (Montana State University)
  Applied and Environmental Microbiology, Aquatic Microbiology
- Kenneth P. Blemings - Ph.D. (University of Wisconsin)
  Nutritional Biochemistry
- Robert A. Dailey - Ph.D. (University of Wisconsin)
  Reproductive Physiology
- E. Keith Inskeep - Ph.D. (University of Wisconsin)
  Reproductive Physiology
- Jacek Jaczynski - Ph.D (Oregon State University)
  Food science and technology
- P. Brett Kenney - Ph.D. (Kansas State University)
  Animal Science and Meat Science
- Hillar Klandorf - Ph.D. (British Council for National Academic Awards)
  Physiology
- William L. MacDonald - Ph.D. (Iowa State University)
  Plant Pathology, Forest and Shade Tree Diseases
- Louis M. McDonald - Ph.D. (University of Kentucky)
  Soil Science, Soil Chemistry
- Joseph S. Moritz - Ph.D. (Kansas State University)
  Nutrition and feed manufacture
- Joseph B. Morton - - Ph.D. (Montana State University)
  Plant Pathology, Mycorrhizal Interactions, Field Crop Diseases
- Daniel Panaccione - Ph.D. (Purdue State University)
  Plant Pathology, Mycology, Mycotoxins, Molecular Biology
- Alan J. Sexstone - Ph.D. (Michigan State University)
  Applied and Environmental Microbiology, Soil Microbiology
- Jeffrey Skousen - Ph.D. (Texas A&M University)
  Soil Science, Land Reclamation, Soil and Water Conservation, Watershed Restoration
- Matthew E. Wilson - Ph.D. (Iowa State University)
  Reproductive Physiology

ASSOCIATE PROFESSOR

- Eugene E. Felton - Ph.D. (University of Missouri)
  Ruminant Nutrition
- Marlon Knights - Ph.D. (West Virginia University)
  Reproductive Physiology and Animal Production
- James B. Kotcon - Ph.D. (University of Wisconsin)
  Plant Pathology, Agroecology, Nematology, Organic Farming Practices
- Marie Krause - Ph.D. (University of Wisconsin-Madison)
  Dairy Science Nutrition
- Kristen E. Matak - Ph.D. (Virginia Tech)
  Food Science and Human Nutrition
- Yong-Lak Park - Ph.D. (Iowa State University)
  Entomology, Geospatial Ecology of Insects, Integrated Pest Management, Spatial Interaction between Insect and Plant Diseases
- Susan N. Partington - Ph.D., R.D. (University of Wisconsin)
  Human Nutrition and Foods
- Eugenia M. Pena-Yewtukhiw - Ph.D. (University of Kentucky)
  Soil Science
- Kenneth J. Semmens - Ph.D. (Auburn University)
  Aquaculture
- James A. Thompson - Ph.D. (University of Minnesota)
  Soil Science, Pedology and Land Use
- Janet C. L. Tou - Ph.D. (University of Toronto, Canada)
  Human Nutrition and Foods
- Sven Verlinden - Ph.D. (Purdue University)
  Horticulture, Post Harvest Physiology, Molecular Biology
- Jianbo Yao - Ph.D. (McGill University)

Molecular biology-genetics

ASSISTANT PROFESSOR

- Kimberly M. Barnes - Ph.D. (University of Nebraska)
  Animal science-biochemistry
- Vagner A. Benedito - Ph.D. (Wageningen University, The Netherlands)
  Genetics and Developmental Biology, Plant Genemomics, Functional Genetics and Plant Physiology
- Scott A. Bowdridge - Ph.D. (Virginia Tech)
  Food animal production, parasite immunology
- Thomas C. Griggs - Ph.D. (Texas Tech University)
  Agronomy, Field and Forage Crops
- Melissa Marra - Ph.D., R.D. (Florida International University)
  Human nutrition and foods
- Joseph W. McFadden - Ph.D. (Virginia Tech)
  Nutritional Biochemistry
- Melissa D. Olfert - Dr.P.H., M.S., R.D. (Loma Linda University)
  Human Nutrition and Foods
- Nicole Waterland - Ph.D. (Ohio State University)
  Horticulture, Flower Senescence

TEACHING ASSISTANT PROFESSOR

- Megan Govindan - - M.P.H., M.S., R.D. (West Virginia University)
  Human nutrition and foods
- Crystal E. Smith - - M.Agr., PAS (The Pennsylvania State University)
  Equine management

CLINICAL ASSOCIATE PROFESSOR

- Margaret A. Minch - - D.V.M. (Ohio State University)
  Veterinary medicine

FACULTY EMERITI

- James W. Amrine, Jr.
- Robert E. Anderson
- John A. Balasko
- John F. Baniecki
- Bradford C. Bearce
- James L. Brooks
- William B. Bryan
- Linda Butler
- William E. Collins
- Leslie Dozsa
- Betty J. Forbes
- Mannon E. Gallegly, Jr.
- Mary K. Head
- Henry W. Hogmire
- William H. Hoover
- L. Morris Ingle
- Robert F. Keefer
- Paul E. Lewis
- Joginder Nath
- M. Zafar Alam Nomani
- Ronald A. Peterson
- Edward C. Prigge
- John C. Sencindiver
- Rabindar N. Singh
- Paul M. Smith

- Charles B. Sperow, Jr.
- William Van Eck
- Wayne R. Wagner
- John Warren
- Robert J. Young
- Richard K. Zimmerman

ADJUNCT FACULTY

- Robert L. Cochrane - Reproductive physiology
- Jesse Fallon - Veterinary medicine
- Michael Glenn - Soil Science
- Ann Hubbs - Veterinary medicine
- Eric K. Johnson - Mechanical and aerospace engineering
- Lee Kass - Plant and Soil Sciences, History of Genetics
- Barbara Jean Meade - Veterinary sciences
- Stephen S. Miller - Horiculture
- David D. Moran - Hydrodynamics and mathematics
- Tong-Man Ong - Genetics
- Dale W. Porter - Toxicology
- Caird E. Rexroad III - Genetics
- George R. Seiler - Veterinary sciences
- Alfred H. Stiller - Chemistry
- Richard Z. Woodworth - Agriculture
- Paul F. Ziemkiewicz - Land Reclamation
- Thomas van der Zwet - Plant Pathology

Agronomy

Degree Offered:

- Master of Science with a major in Agronomy

A candidate for the M.S. degree in Agronomy must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Animal and Food Science

Robert L. Taylor, Jr., Division Director of Animal and Nutritional Sciences
e-mail: Bob.Taylor@mail.wvu.edu (matt.wilson@mail.wvu.edu)

Matthew Jenks, Division Director of Plant and Soil Sciences
e-mail: majenks@mail.wvu.edu (bbaker2@wvu.edu)

Degree Offered

- Doctor of Philosophy with a major in Animal and Food Science

The Davis College of Agriculture, Natural Resources, and Design offers graduate studies leading to the degree of doctor of philosophy in agricultural sciences with a major in Animal and Food Science. The objective of the degree program is to provide doctoral students an opportunity to study and conduct research with faculty in areas of excellence within the college. Students entering this program may select research and classes in areas of emphases including: agricultural biochemistry, animal nutrition, animal physiology, and production management.

Admissions

Applications and required fees are submitted to the Office of Graduate Admissions at grad.wvu.edu/admissions. Applications must be submitted by October 15 for fall semester and March 15 for spring semester. Applicants must hold a master's or its equivalent to be eligible for admission into the program. The following admission and performance standards are normally required in the doctor of philosophy in agriculture sciences program:

- An applicant must possess a master's degree and hold a grade point average (GPA) of 3.0 or above (on a 4.0 scale) in postgraduate courses.
- The graduate record examination is required for the major in plant and soil sciences but not for the major in animal and food sciences.
- A student whose native language is not English must have obtained a minimum score of 79 on the TOEFL examination.
- An applicant must provide three letters of reference.
- A one or two-page letter of intent from the student describing his/her research and professional aspirations is required.

After a student is admitted into the doctoral program, the student will select a major professor who will provide and direct an appropriate research opportunity. Doctoral students will conduct research in support of projects approved by the West Virginia Agricultural and Forestry Experiment Station (WVAFES) or externally funded grants. The student in consultation with the major professor, will select a graduate committee within the first semester of study. The committee will consist of five or more members; the majority must be WVU faculty and at least one member representing a discipline outside the college. Each student and his or her committee will formulate a plan of study, which will be filed in the Office of the Associate Dean for Academic Affairs of the College. WVU regulations concerning committee membership will apply.

A candidate for the Ph.D. degree in Animal and Food Science must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study

A minimum of six credit-hours must be completed in biology or earth sciences (excluding courses within a student's major field of study).

A minimum of six credit-hours must be completed in biochemistry or advanced chemistry (400 level or above), depending on the student's research concentration.

A two-semester sequence (minimum of six credits) must be completed in graduate-level statistics plus a course in experimental design, or a two-semester sequence (minimum of six credits) must be completed in graduate-level statistics plus one semester (minimum of three credits) of computer science beyond the introductory level.

One seminar must be presented during each year or part of year in residence. A final dissertation research seminar will be presented as a college or university-wide seminar.

Oral and written comprehensive (qualifying) examinations will be administered by the student's graduate committee before the end of the second year following admission to the program. Satisfactory completion of the comprehensive examinations and core course requirements will admit the student to candidacy for the Ph.D.

Research

Candidacy Exam

Dissertation

Dissertation Defense

Doctoral students must satisfactorily complete a set of core courses before they will be admitted to candidacy for the Ph.D. degree. Certain course requirements may be waived if the student has received equivalent training in prior coursework. Additional coursework pertaining to the student's area of specialization will be determined by the student's major professor and graduate committee. Although not required, presentation of research results at meetings of a professional society and submission of manuscripts for publication are encouraged.

Animal Physiology

Robert L. Taylor, Jr., Division Director of Animal and Nutritional Sciences
e-mail: Bob.Taylor@mail.wvu.edu (bob.taylor@mail.wvu.edu)

Degrees Offered

- Master of Science with a major in Animal Physiology

DEGREE DESCRIPTION

The master of science in animal physiology in the Davis College of Agriculture, Natural Resources and Design allows maximum flexibility in courses and research problems. They may work with beef and dairy cattle; sheep, swine, poultry, or laboratory animals. Research problems in farm animals and laboratory animals form the basis for many studies, but a comparative approach is emphasized. A master of science degree is available as a thesis or coursework option. For additional information, contact Dr. Robert L. Taylor, Jr., at (304) 293-2631 or Bob.Taylor@mail.wvu.edu.

Admissions

Requirements are similar to those in other biological sciences. The student should have completed basic courses in the physical and biological sciences, including genetics, nutrition, and physiology. Deficiencies may prolong the time needed to complete degree programs.

Applications must be submitted by October 15 for fall semester and March 15 for spring semester for the M. S. in Animal Physiology. A composite graduate record examination score of 1,000 or better will be considered as a basis for admission. Meeting the above requirements shall not guarantee the applicant admission since each professor will accept only the number of students that can be supervised adequately with available facilities, time, and funds.

A candidate for the M.S. degree in Animal Physiology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.llege.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Applied and Environmental Microbiology

Matthew Jenks, Division Director and Graduate Program Coordinator of Plant and Soil Sciences
email: majenks@mail.wvu.edu

Degree Offered

- Master of Science with a major in Applied and Environmental Microbiology

Admissions

In order for a student to be admitted to the program, the applicant normally must fulfill the following admission criteria to be considered:

- Possess a baccalaureate degree.
- Have a minimum undergraduate grade point average of 2.75 (3.0 for acceptance as a regular graduate student).
- Have an adequate academic aptitude at the graduate level as measured by the Graduate Record Examination (GRE) or other tests/evidence.
- Provide three letters of reference from persons acquainted with the applicant's professional work, experience, or academic background.
- Submit a written statement of approximately 500 words indicating the applicant's goals and objectives relative to receiving a graduate degree.

International students have the additional requirement to submit a minimum score of 213 on the computer based TOEFL examination if their native language is not English. Interviews are encouraged but not required.

A candidate for the M.S. degree in Applied and Environmental Microbiology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Entomology

Matthew Jenks, Division Director and Graduate Program Coordinator of Plant and Soil Sciences
email: majenks@mail.wvu.edu

Degree Offered

- Master of Science with a major in Entomology

Admissions

In order for a student to be admitted to the program, the applicant normally must fulfill the following admission criteria to be considered:

- Possess a baccalaureate degree.
- Have a minimum undergraduate grade point average of 2.75 (3.0 for acceptance as a regular graduate student).
- Have an adequate academic aptitude at the graduate level as measured by the Graduate Record Examination (GRE) or other tests/evidence.
- Provide three letters of reference from persons acquainted with the applicant's professional work, experience, or academic background.
- Submit a written statement of approximately 500 words indicating the applicant's goals and objectives relative to receiving a graduate degree.

International students have the additional requirement to submit a minimum score of 213 on the computer based TOEFL examination if their native language is not English. Interviews are encouraged but not required.

A candidate for the M.S. degree in Entomology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Genetics and Development Biology

Matthew Jenks, Division Director and Graduate Program Coordinator of Plant and Soil Sciences
email: majenks@mail.wvu.edu

Degrees Offered

- Master of Science with a major in Genetics and Developmental Biology
- Doctor of Philosophy with a major in in Genetics and Developmental Biology

AREAS OF EMPHASIS

The degree is offered in genetics and developmental biology, an interdisciplinary program involving the faculty and facilities of a number of departments in the various colleges and schools of the university. A student may concentrate in genetics or developmental biology. The areas in which emphases are offered are as follows:

Genetics – Biochemical and molecular genetics, cytogenetics, developmental genetics, immunogenetics, mutagenesis, toxicology, human genetics, plant genetics, population and quantitative genetics, and animal breeding.

Developmental Biology – Molecular aspects of development, experimental morphogenesis, teratology, regeneration, descriptive embryology, and life cycles of animals and plants.

The student may also minor in one or more other scientific fields.

PROGRAM OBJECTIVE

The objective of this program is an increased level of understanding of modern concepts and methodologies employed in genetic and developmental biological work and to prepare a student to pursue a career in teaching and/or research. Responsibility for a student's program is vested in a graduate committee charged with arranging the student's coursework, conducting examinations, and supervising the research.

Admissions

To be considered for admission in the program, the student must possess a baccalaureate degree from an accredited college or university, and the student must have a grade point average of at least a 2.75 (on a 4.0 scale), an average of 3.0 or higher for the last sixty credit hours, or an average of 3.0 or higher in all courses in sciences and mathematics.

GRE AND NEW MCAT

The student must submit the scores of the Graduate Record Examination (GRE) or the New Medical College Admission Test (New MCAT). The student must provide three letters of reference from persons acquainted with the applicant's professional work, experiences, or academic work, and also submit a written statement of 500 words or more indicating the applicant's goals and objectives relative to receiving a graduate degree.

Basic training in mathematics, physics, chemistry, and biology is required for admission. Students lacking prerequisites may be accepted in a provisional status but must fulfill them before graduation. Applications for graduate study should be sent in as early in the year as possible, but no later than April 1 for entry the following August; however, applications are accepted year-round for admission to the program in the following semester. Official transcripts of baccalaureate and/or master's degrees must be sent directly to the WVU Office of Admissions. Application forms can be received from the WVU Office of Admissions, P.O. Box 6009, Morgantown, WV 26506-6009. For further information, write to the department chair.

Program Requirements

A candidate for the M.S. degree in Genetics and Developmental Biology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College. For a more complete statement of requirements, the student is referred to the program's Guidelines for Graduate Students in the Genetics and Developmental Biology Program.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

A candidate for the Ph.D. degree in Genetics and Developmental Biology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College. Students are expected to maintain at least a 3.0 (B) grade point average in all work offered in fulfillment of the degree program. For a more complete statement of requirements, the student is referred to the program's Guidelines for Graduate Students in the Genetics and Developmental Biology Program.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study	
Research	
Candidacy Exam	
Dissertation	
Dissertation Defense	

Horticulture

Matthew Jenks, Division Director and Graduate Program Coordinator of Plant and Soil Sciences
email: majenks@mail.wvu.edu

Degree Offered

- Master of Science with a major in Horticulture

Admissions

In order for a student to be admitted to the program, the applicant normally must fulfill the following admission criteria to be considered:

- Possess a baccalaureate degree.
- Have a minimum undergraduate grade point average of 2.75 (3.0 for acceptance as a regular graduate student).
- Have an adequate academic aptitude at the graduate level as measured by the Graduate Record Examination (GRE) or other tests/evidence.
- Provide three letters of reference from persons acquainted with the applicant's professional work, experience, or academic background.
- Submit a written statement of approximately 500 words indicating the applicant's goals and objectives relative to receiving a graduate degree.

International students have the additional requirement to submit a minimum score of 213 on the computer based TOEFL examination if their native language is not English. Interviews are encouraged but not required.

A candidate for the M.S. degree in Horticulture must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.llege.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Nutritional and Food Sciences

Robert L. Taylor, Jr., Division Director of Animal and Nutritional Sciences
e-mail: Bob.Taylor@mail.wvu.edu (bob.taylor@mail.wvu.edu)

Degrees Offered

- Master of Science with a major in Nutritional and Food Science

DEGREE DESCRIPTION

The master of science in nutritional and food science in the Davis College of Agriculture, Natural Resources and Design allows maximum flexibility in courses and research problems. They may work with with issues in human health and nutrition. Research problems in human nutrition issues form the basis for many studies, but a comparative approach is emphasized. A master of science degree is available as a thesis or coursework option. For additional information, contact Dr. Robert L. Taylor, Jr., @ (304) 293-2631 or Bob.Taylor@mail.wvu.edu.

The division offers the graduate dietetic internship program as a component of the masters of science degree program (see below). For additional information, contact Mr. Adam Burda at (304) 293-2651 or Adam.Burda@mail.wvu.edu.

Graduate Dietetic Internship

The Graduate Dietetic Internship is a two-year combined master's/ internship program for individuals who have completed at least a bachelor's degree, as well as the Accreditation Council for Education in Nutrition and Dietetics (ACEND) coursework requirements. The dietetic internship provides the supervised practice experience that is required to be eligible to take the registration examination for dietitians. The combined program offers interns the opportunity to complete a Master of Science degree in addition to the required supervised practice component. There is a thesis as well as a non-thesis option for the master' degree. The program will provide interns with at least 1,200 hours of supervised practice experience. For additional information contact the program director Mr. Adam M. Burda at (304) 293-2651 or Adam.Burda@mail.wvu.edu.

Admissions

Requirements are similar to those in other biological sciences. The student should have completed basic courses in the physical and biological sciences, including genetics, nutrition, and physiology. Deficiencies may prolong the time needed to complete degree programs.

Applications must be submitted by October 15 for fall semester and March 15 for spring semester for the M. S. in Nutrition and Food Science. A composite graduate record examination score of 1,000 or better will be considered as a basis for admission. Meeting the above requirements shall not guarantee the applicant admission since each professor will accept only the number of students that can be supervised adequately with available facilities, time, and funds.

A candidate for the M.S. degree in Nutritional and Food Science must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.llege.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Plant and Soil Science

Matthew Jenks, Division Director and Graduate Program Coordinator of Plant and Soil Sciences
email: majenks@mail.wvu.edu

Degree Offered

- Doctor of Philosophy with a major in Plant and Soil Science

AREA OF EMPHASIS

The doctor of philosophy in plant and soil sciences degree is offered to students who wish to study crops agronomy, entomology, applied and environmental microbiology, horticulture, plant pathology, or soil sciences.

Admissions

In order for a student to be admitted to the program, the applicant normally must fulfill the following admission criteria to be considered:

- Possess a baccalaureate degree.
- Have a minimum undergraduate grade point average of 2.75 (3.0 for acceptance as a regular graduate student).
- Have an adequate academic aptitude at the graduate level as measured by the Graduate Record Examination (GRE) or other tests/evidence.
- Provide three letters of reference from persons acquainted with the applicant's professional work, experience, or academic background.
- Submit a written statement of approximately 500 words indicating the applicant's goals and objectives relative to receiving a graduate degree.

International students have the additional requirement to submit a minimum score of 213 on the computer based TOEFL examination if their native language is not English. Interviews are encouraged but not required.

A candidate for the Ph.D. degree in Plant and Soil Science must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study

A minimum of six credit-hours must be completed in biology or earth sciences (excluding courses within a student's major field of study).

A minimum of six credit-hours must be completed in biochemistry or advanced chemistry (400 level or above), depending on the student's research concentration.

A two-semester sequence (minimum of six credits) must be completed in graduate-level statistics plus a course in experimental design, or a two-semester sequence (minimum of six credits) must be completed in graduate-level statistics plus one semester (minimum of three credits) of computer science beyond the introductory level.

One seminar must be presented during each year or part of year in residence. A final dissertation research seminar will be presented as a college or university-wide seminar.

Oral and written comprehensive (qualifying) examinations will be administered by the student's graduate committee before the end of the second year following admission to the program. Satisfactory completion of the comprehensive examinations and core course requirements will admit the student to candidacy for the Ph.D.

Research

Candidacy Exam

Dissertation

Dissertation Defense

Doctoral students must satisfactorily complete a set of core courses before they will be admitted to candidacy for the Ph.D. degree. All core courses will be at the 600 or 700 level, except where indicated below. Certain course requirements may be waived if the student has received equivalent training in prior coursework. Additional coursework pertaining to the student's area of specialization will be determined by the student's major professor and graduate committee.

Plant Pathology

Matthew Jenks, Division Director and Graduate Program Coordinator of Plant and Soil Sciences
email: majenks@mail.wvu.edu

Degree Offered

- Master of Science with a major in Plant Pathology

Admissions

In order for a student to be admitted to the program, the applicant normally must fulfill the following admission criteria to be considered:

- Possess a baccalaureate degree.
- Have a minimum undergraduate grade point average of 2.75 (3.0 for acceptance as a regular graduate student).
- Have an adequate academic aptitude at the graduate level as measured by the Graduate Record Examination (GRE) or other tests/evidence.
- Provide three letters of reference from persons acquainted with the applicant's professional work, experience, or academic background.
- Submit a written statement of approximately 500 words indicating the applicant's goals and objectives relative to receiving a graduate degree.

International students have the additional requirement to submit a minimum score of 213 on the computer based TOEFL examination if their native language is not English. Interviews are encouraged but not required.

A candidate for the M.S. degree in Plant Pathology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.llege.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*] Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Reproductive Physiology

E. Keith Inskeep, Chairperson of the Interdisciplinary Faculty
e-mail: einskeep@wvu.edu

Degrees Offered

- Master of Science with a major in Reproductive Physiology
- Doctor of Philosophy with a major in Reproductive Physiology

The graduate program in reproductive physiology is interdisciplinary, with faculty located in the Departments of Animal and Nutritional Sciences; Biology; Obstetrics and Gynecology; Physiology and Pharmacology; and Internal Medicine.

RESEARCH

Research topics include studies of control of fertility, function and regression of the corpus luteum, aging of the oocyte, seasonal and other environmental factors in reproduction, steroidogenesis, control of estrus and ovulation, artificial insemination, ovarian follicular development, novel ovarian genes, endocrine functions of polypeptides, embryonic and fetal mortality, neuroendocrine control of gonadotropic hormone secretion, neuroendocrine regulation of puberty and breeding seasons, effects of nutrition on reproductive function, effects of pre-natal stress on cardiac function, and immunology of reproduction. The focus of research is both basic and applied and is almost entirely with farmed animals, including poultry.

Admissions

Requirements for admission include completion of the following prerequisites with a grade of C or better in each: calculus, genetics, organic chemistry, physics, and vertebrate embryology. The Graduate Record Examination is not required. Only a limited number of students are accepted each year.

A candidate for the M.S. degree in Reproductive Physiology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*] Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

COURSES

ANPH 424	Physiology of Reproduction	3
ANPH 796	Graduate Seminar	1
A&VS 699	Graduate Colloquium	1-6
ANPH 697	Research	1-15
Other graduate classes based on student emphasis and advisory committee recommendations..		
Total Hours		**6-25**

 The program draws on courses offered in various departments and includes courses in endocrinology, advanced reproductive physiology, biochemistry, physiology, statistics, and developmental embryology selected by the student in consultation with his or her graduate committee. Students present seminars and participate in journal clubs each semester, but only 1 hour of each and 6 hours of research can count toward the 30-hour minimum.

A candidate for the Ph.D. degree in Reproductive Physiology must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study
Research
Candidacy Exam
Dissertation
Dissertation Defense

COURSES

ANPH 726	Endocrinology of Reproduction	4
ANPH 796	Graduate Seminar	1
A&VS 699	Graduate Colloquium	1-6
ANPH 797	Research	1-15
Other graduate classes dependent on student background, focus and advisory committee recommendations		
Total Hours		**7-26**

The program draws on courses offered in various departments and includes courses in endocrinology, advanced reproductive physiology, biochemistry, physiology, statistics, and developmental embryology. Students present seminars and participate in journal clubs each semester.

School of Design and Community Development

Kerry Odell, Interim Division Director of Resource Management

email: kerry.odell@mail.wvu.edu

Alan R. Collins, Assistant Division Director and Graduate Program Coordinator of Resource Management

email: alan.collins@mail.wvu.edu

Degrees Offered

- Master of Landscape Architecture with a major in Landscape Architecture
- Master of Science with a major in Agricultural and Extension Education
- Master of Science with a major in Design and Merchandising
- Doctor of Philosophy with a major in Agricultural and Extension Education

The Division of Resource Management's primary mission is to prepare leaders, who influence the economic, social, aesthetic, and functional development of communities, states, and nations, dedicated to the improvement of quality of life for all members of society in harmony with the natural environment.

The Division of Resource Management offers curricula in agricultural and extension education, landscape architecture, and agricultural and resource economics. The mission of the agricultural and extension education program is to empower their majors for the choices and challenges of the twenty-first century. The faculty members in this program bring their love of the profession to students in an educational setting.

The graduate program in landscape architecture at WVU provides study opportunities for students entering the program from disciplines other than landscape architecture as well as advanced study opportunities for students who already have a design background. Our students work closely with faculty members and practicing professionals in the field to develop the skills essential to their professions and to examine the underlying theories on which they will ground their practice.

The landscape architecture graduate program provides students with real world experiences and research opportunities. Graduate students are also exposed to faculty who have doctoral or advanced degrees in their field and who work collaboratively with national, state, and community agencies or organizations. Our faculty members are engaged in extensive research and are considered experts in their field of study.

Students in agricultural and resource economics graduate programs benefit from the fifteen faculty members in the division plus the availability of three computer laboratories in our building and by the presence of the Natural Resource Analysis Center (NRAC). NRAC is a multidisciplinary research and

teaching facility in the Division of Resource Management that provides research, teaching, and service in environmental and natural resource issues with a geo-spatial context.

Other valuable resources at WVU include the Regional Research Institute along with faculty in the Division of Design & Merchandising and Department of Economics. The RRI sponsors programs and activities that advance our knowledge of processes of regional socio-economic change with an emphasis on lagging regions. Ours are global interests, but we especially encourage research relevant to West Virginia and Appalachia. The RRI is located on the downtown campus of West Virginia University. Founded in 1965, the RRI has an internationally recognized reputation as a center of excellence in regional research.

Faculty members in the Division of Design & Merchandising offer expertise in interior design, business administration, architecture, fashion design and merchandising, and various fields related to Sustainable Design. Economics faculty members teach Ph.D.-level theory and econometrics courses along with coursework for fields in Regional and Public Economics.

A limited number of graduate research assistantships are available to highly qualified students on a competitive basis.

FACULTY

DIRECTOR

- Kerry Odell - Ph.D. (Ohio State University)
  Interim Director

ASSISTANT DIRECTOR AND GRADUATE PROGRAM COORDINATOR

- Alan R. Collins - Ph.D. (Oregon State University)

PROFESSORS

- Harry N. Boone, Jr. - Ph.D. (Ohio State University)
  Computing Technology, Teaching Methods, Social Science Research
- Alan R. Collins - Ph.D. (Oregon State University)
  Resource Economics
- Michael J. Dougherty - Ph.D. (Virginia Technical)
  Environmental Design and Planning
- Gerard E. D'Souza - Ph.D. (Mississippi State University)
  Production Economics, Finance
- Jerald J. Fletcher - Ph.D. (University of California, Davis)
  Energy, Environmental and Resource Economics
- Stacy A. Gartin - Ph.D. (Ohio State University)
  Communications, Program Planning, Leadership Development, Teaching Methods
- Tesfa Gebremedhin - Ph.D. (Oklahoma State University)
  Farm Management, Agribusiness
- Tim T. Phipps - Ph.D. (University of California)
  Resource Economics, Agricultural Policy
- Peter V. Schaeffer - Ph.D. (University of Southern California)
  Regional Science, Applied Microeconomics
- Dennis K. Smith - Ph.D. (Pennsylvania State University)
  Rural Development, Agribusiness Management

ASSOCIATE PROFESSOR

- Deborah A. Boone - Ph.D. (Ohio State University)
  Extension Education, Leadership Development, Program Evaluation and Development
- Cheryl Brown - Ph.D. (University of California, Berkeley)
  Agricultural Policy, Resource Economics, Agribusiness
- Michael Hasenmyer - M.L.A. (North Carolina State University)
  Virtual simulation and design education
- Fonda Holehouse - J.D. (West Virginia University)
  Environmental and Enterprise Development and Law
- Donald J. Lacombe - Ph.D. (Florida State University)
  Spatial Econometrics, Public Choice, and Industrial Organization
- Kerry S. Odell - Ph.D. (Ohio State University)
  Research Methodology, Microcomputer Applications, Teaching Methods
- Mark Sperow - Ph.D. (Colorado State University)

Production and Resource Economics
- Michael P. Strager - Ph.D. (West Virginia University)
  Spatial Analysis, Decision Support
- Charles B. Yuill - M.L.A. (University of Massachusetts)
  Computer Applications, Site Analysis

ASSISTANT PROFESSOR

- J. Wesley Burnett - Ph.D. (University of Georgia)
  Resource, Environmental, and Energy Economics
- Peter Butler - M.L.A. (Iowa State)
  Cultural Landscape Planning and Interpretation, Community Design
- Hodjat Ghadimi - Ph.D. (Ohio State University)
  Sustainable Development
- Ashley Kyber - M.S. (Clemson University), M.F.A. (Cranbrook)
  Community Design Landscape/Public Art, Environmental/Green Design
- Carrie Moore - M.Na (Lincoln University), R.M. (New Zealand), & E.E. (Universitat for Bodenkultur, Austria)
  Environmental Psychology, Natural Resource Management
- Lisa Orr - M.L.A. (University of California, Berkeley)
  Vernacular and Cultural Landscape Analysis and Theory, Landscape Architectural Graphics and Representation
- Doolarie Singh-Knights - Ph.D. (West Virginia University)
  Natural Resource Economics

PROFESSORS EMERITI

- Donald R. Armstrong - M.L.A. (Louisana State)
- Alfred L. Barr - Ph.D. (Oklahoma State University)
- Dale K. Colyer - Ph.D. (University of Wisconsin)
- Gerald V. Eagan - Ph.D. (University of Tennessee)
- Robert Jack - Ph.D. (Pennsylvania State University)
- Walter C. Labys - Ph.D. (University of Nottingham)
- Layle D. Lawrence - Ph.D. (Louisana State University)
- George W. Longenecker - M.F.A. (University of Illinois)
- Wesley Lynch - M.S. (Michigan State University)
- Steven B. McBride - M.L.A. (University of Massachusetts)
- Kenneth D. McIntosh - Ph.D. (University of Wiscconsin)
- Paul E. Nesselroad - Ph.D. (Pennsylvania State University)
- Virgil J. Norton - Ph.D. (Oregon State University)
- Mary E. Templeton - M.S. (West Virginia University)
- Delmar R. Yoder - Ph.D. (University of Wisconsin)

Admissions

The following admission and performance standards, in addition to university and college requirements, are normally required to qualify for acceptance as a regular student to the Ph.D. program in Resource Management and Sustainable Development:

- A master's degree and a grade point average (GPA) of 3.0 or higher (on a 4.0 scale) in graduate courses is normally required for the AGEE, RM, and HCD areas. Applicants for the NRE area that are not prepared to take the Ph.D. sequence in microeconomic theory, mathematical economics, and econometrics will be admitted to the M.S. program in agricultural and resource economics.
- A minimum combined score of 300 for the verbal and quantitative sections of the Graduate Record Examination (GRE).
- Three letters of reference from individuals who can attest to the applicant's potential for academic success and/or relevant career-related experiences should be sent directly to the graduate program coordinator in Division of Resource Management.
- A current resume or curriculum vita.
- Coursework in intermediate microeconomics theory, statistics, and calculus for those seeking admittance into the RM or NRE areas.
- Four years of career-related experience for those seeking admittance into the AGEE area.
- Other supporting materials you wish to have considered with your application.

Applications are reviewed by the Graduate Admission Committee, the graduate program coordinator, and the Division Director who jointly make the admission decision. Applicants who do not meet the requirements but have special qualifications or circumstances may be admitted as provisional graduate students.

Agricultural and Extension Education

Harry N. Boone, Jr., Graduate Program Coordinator
e-mail: Harry.Boone@mail.wvu.edu

Degrees Offered

- Master of Science with a major in Agricultural and Extension Education
- Doctor of Philosophy with a major in Agricultural and Extension Education

There are two graduate options available in Agricultural and Extension Education. Individuals desiring advanced study in teaching agriculture in public schools, communication and leadership, or extension education may earn a master of science in agricultural and extension education. For individuals interested in the opportunity to study and conduct research with faculty in agricultural and extension education, a Ph.D. in resource management and sustainable development with an emphasis in agricultural and extension education is available.

The Agricultural and Extension Education faculty offer master's programs for persons desiring advanced study in teaching agriculture in public schools, communications and leadership, or extension education. Candidates for the master of science degree may be admitted on a regular or provisional basis. A student who does not have a B.S. in agriculture with a major in agricultural and extension education may be required to complete undergraduate courses in agriculture and professional education if he or she plans to obtain certification to teach. Students in the curriculum take graduate courses in both technical and professional education. Programs are planned to ensure that candidates develop competence in the following areas:

- Communications and leadership
- Design, operation, and philosophy of agricultural and extension education programs
- Research and evaluation processes (In addition, students pursuing programs that emphasize agricultural and extension education will be expected to develop an understanding of teaching/learning processes.)

A candidate for the M.S. degree in Agricultural and Extension Education must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A candidate for the Ph.D. degree in Agriculture and Extension Education must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study
Research
Candidacy Exam
Dissertation
Dissertation Defense

Agriculture and Extension Education Area of Emphasis Requirements

A minimum of 6 and no more than 12 hours of coursework within an approved major but distinct from required major coursework will be completed as determined by the Plan of Study.

Beyond the core, AGEE majors take four courses covering research design, data analysis, program development, and program evaluation. Additional courses in teaching and learning theory, educational psychology, supervision, administration and leadership, and statistics are recommended. Students will have two fields of specialization consisting of a minimum of twelve to fifteen semester hours of coursework each, not counting research.

Beyond the core, HCD majors take four courses covering research design, data analysis, program development, and program evaluation. Additional courses related to qualitative research, policy, administration, and the philosophical, theoretical, and empirical foundations related to human community growth and sustainability are recommended. Students will have two fields or specialization consisting of a minimum of twelve to fifteen semester hours of coursework each.

Design and Merchandising

Degree Offered

- Master of Science in Design and Merchandising

A candidate for the M.S. degree in Design and Merchandising must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Landscape Architecture

Charles B. Yuill, Graduate Program Coordinator
email: charlie.yuill@mail.wvu.edu

Degree Offered

- Master of Landscape Architecture (MLA)

The MLA (Master of Landscape Architecture) is a professional master's level program offered by the Landscape Architecture Program in the Division of Resource Management. The Program provides two tracks for students who wish to pursue graduate education in landscape architecture and environmental design. The program provides for a three-year course of study for students without a design-related undergraduate degree who wish to pursue graduate studies in landscape architecture. That track provides one year of leveling courses, so students may then pursue advanced studies in their remaining two years. Students pursuing the three-year MLA are then able to engage in the profession of landscape architecture as practicing professionals.

The program also provides a two-year course of study for students entering the program with an undergraduate design degree in landscape architecture or a related field such as architecture. The program provides opportunities to engage in landscape architectural design as well as the potential to engage in specializations such as community planning and design, environmental restoration, and environmental informatics focusing on GIS-based planning and design methods. With both the two-year and three-year programs, the student concludes their studies by completing either an applied capstone project or a thesis.

The master of landscape architecture program provides opportunities for both foundation and advanced training in the core areas of landscape architecture, including site and environmental design, land use planning, construction methods and materials, landscape management, and plant materials and planting design. It is anticipated that many students, particularly those pursuing the post-professional degree, will take interdisciplinary approaches to their studies as well as use them in practice. There are twelve credit hours of electives in the curriculum. These would allow the student to tailor a series of courses in areas of focus such as community planning and design, environmental restoration, or environmental and natural resource analysis methods including geographic information systems and remote sensing.

Admissions

The landscape architecture faculty offers the master of landscape architecture (MLA) as a professional degree leading to the practice of landscape architecture. Candidates for the MLA may enter the program with a BSLA, BALA, or a related design degree and pursue a thirty-eight credit hour course of study culminating in the preparation of either a master's thesis or terminal project. For these students, the MLA will serve as a post-professional degree providing the opportunity for advanced or specialized studies in particular areas of landscape architecture. Students entering the program with a BS or BA in a non-design discipline are required to complete up to an additional twenty-eight credits of leveling courses prior to entering the second year of a three-year course of study with the thirty-eight credit hour course of study to be completed in years two and three. The number of leveling courses that any student may be required to take will be dependent on the student's academic background and will be determined in collaboration with the student's academic advisor. For these students, the MLA will serve as the first professional degree that is required for entry into the profession of landscape architecture. Studies for these students will also culminate in the preparation of a master's thesis or terminal project.

A candidate for the M.L.A. degree in Landscape Architecture must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*] Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

COURSEWORK

A total of thirty-eight credit hours are required for the post-professional MLA program. The requirements for the first professional degree may include an additional twenty-eight undergraduate and graduate credits prior to commencing with subsequent graduate courses.

THESIS OR TERMINAL PROJECT

Students will be required to complete either a research thesis on a problem in environmental or community design or landscape architecture or to complete an applied comprehensive professional project. Each student selecting the thesis option will defend their thesis in a public forum before their committee. The comprehensive project option will result in a professional submission that includes a written report and appropriate professional drawings documenting the design project for a project subject to realistic conditions. It will also include a formal public presentation/defense before the student's committee.

The composition of graduate advisory committees will follow Davis College and WVU guidelines and must have at least two landscape architecture faculty members and one outside member. Two of the committee members must be full members of the graduate faculty, and the third may be an associate member.

School of Natural Resources

Joseph McNeel, Division Director of Forestry and Natural Resources
email: joseph.mcneel@mail.wvu.edu

Degrees Offered

- Master of Science in Forestry with a major in Forestry
- Master of Science with a major in Agricultural and Resource Economics
- Master of Science with a major in Recreation, Parks, and Tourism Resources
- Master of Science with a major in Wildlife and Fisheries Resources
- Doctor of Philosophy with a major in Forest Resources Science
- Doctor of Philosophy with a major in Human and Community Development
- Doctor of Philosophy with a major in Natural Resource Economics
- Doctor of Philosophy with a major in Resource Management

The School of Natural Resources offers master of science degree programs in four areas: agriculture and resource economics; forestry; recreation, parks and tourism resources; and wildlife and fisheries resources. Students wishing to pursue a master of science emphasizing forest resources management or wood science and technology should apply for admission to the master of science in forestry.

A student seeking admission to work toward the degree of doctor of philosophy in forest resources science in the School of Natural Resources may choose from one of the following ***Areas of Emphasis*** as their major field of study: **forest resources management; recreation, parks, and tourism resources; wood science and technology;** or **wildlife and fisheries resources**. Within these major fields of study, specialization is limited only by the range of competencies in the graduate faculty.

A limited number of graduate research assistantships are available to highly qualified students on a competitive basis.

FACULTY

DIRECTOR

- Joseph F. McNeel (Director) - Ph.D. (Virginia Polytechnic University)
  Professor, Forest Engineering, Forest Operations
- Gerard E. D'Souza (Associate Director) - Ph.D. (Mississippi State University)
  Agricultural and Resource Economics

PROFESSORS

- James T. Anderson - Ph.D. (Texas Tech University)
  Wildlife ecology and management
- Robert C. Burns - Ph.D. (The Pennsylvania University)
  Understanding recreational behavior, motivations, and satisfaction levels
- Alan R. Collins - Ph.D. (Oregon State University)
  Resource economics
- Benjamin E. Dawson-Andoh - Ph.D. (University of British Columbia)
  Wood Science, Wood Chemistry, Wood Preservation
- Gerard E. D'Souza - Ph.D. (Mississippi State University)
  Production economics, Finance
- John W. Edwards - Ph.D. (Clemson University)
  Wildlife and Fisheries, Endangered Species Ecology and Management, Forest Wildlife/Habitat Relationships
- Jerald J. Fletcher - Ph.D. (University of California, Davis)
  Energy, environmental and resource economics
- Tesfa Gebremedhin - Ph.D. (Oklahoma State University)
  Farm management, Agribusiness
- Kyle J. Hartman - Ph.D. (University of Maryland)
  Wildlife and Fisheries, Fisheries and Aquatic Ecology, Fish Management, Trophic Ecology
- David W. McGill - Ph.D. (Pennsylvania State University)
  Forest Resources Management, Extension Specialist, Forest Resources, Non-industrial Private Forestry
- Joseph F. McNeel - Ph.D. (Virginia Tech)
  Forest harvest and operations
- J.Todd Petty - Ph.D. (University of Georgia)
  Wildlife and Fisheries, Fisheries and Stream Ecology
- Tim T. Phipps - Ph.D. (University of California, Davis)
  Resource economics, Agricultural policy
- Peter V. Schaeffer - Ph.D. (University of Southern California)
  Regional science, Applied microeconomics
- Steven Selin - Ph.D. (University of Oregon)
  Human dimensions and Natural resources management
- Kaushlendra Singh - Ph.D. (University of Georgia)
  Thermo-chemical Conversion
- Dennis K. Smith - - Ph.D. (Pennsylvania State University)
  Rural development, Agribusiness management
- Jingxin Wang - Ph.D. (University of Georgia)
  Biomass logistics, utilization and bioenergy, forest BMPs

ASSOCIATE PROFESSORS

- Cheryl Brown - Ph.D. (University of California, Berkley)
  Agricultural and food policy and economics, Agribusiness
- Jinyang Deng - Ph.D. (University of Alberta)
  Recreation, Parks, and Tourism; Recreation and Leisure Studies
- Kathryn Gazal - Ph.D. (Mississippi State University)
  Forest Economics
- Fonda Holehouse - J.D. (West Virginia University)
  Environmental and enterprise development and law
- Donald J. Lacombe - Ph.D. (Florida State University)
  Spatial econometrics, Public choice and industrial organization
- Chad D. Pierskalla - (Ph.D. University of Minnesota)
  Wildland Recreation Management and Policy
- Dave Smaldone - Ph.D. (University of Idaho)
  Environmental and Cultural Interpretation, Nature-based tourism
- Mark Sperow - Ph.D. (Colorado State University)
  Production and resource economics
- Ben D. Spong - Ph.D. (Oregon State University)
  Forest operations, roads, and harvesting
- Michael P. Strager - Ph.D. (West Virginia University)
  Spatial analysis, Decision support

ASSISTANT PROFESSORS

- Gregory A. Dahle - Ph.D. (Rutgers University)
  Forest Resources Management, Aboriculture
- David B. DeVallance - Ph.D. (Oregon State University)
  Wood Science, Sustainable Product Development
- Jingjing Liang - Ph.D. (University of Wisconsin-Madison)
  Forest ecology
- Kudzayi Maumbe - Ph.D. (Michigan State University)
  Recreation, Parks, and Tourism; Tourism Marketing
- Stuart Moss - Ph.D. (West Virginia University)
  Management of private forests
- Gloria S. Oporto - Ph.D. (University of Maine - Orono)
  Wood Science, Wood-based Composites and Bioproducts
- James S. Rentch - Ph.D. (West Virginia University)
  Forest ecology
- Jamie Schuler - Ph.D. (North Carolina State University)
  Forest regeneration and restoration
- Doolarie Singh-Knights - Ph.D. (West Virginia University)
  Natural resource economics
- Amy B. Welsh - Ph.D. (University of California - Davis)
  Wildlife and Fisheries, Ecology, Conservation Genetics
- Nicolas P. Zegre - Ph.D. (Oregon State University)
  Forest Resources Management, Forest Hydrology
- Mo Zhou - Ph.D. (University of Wisconsin)
  Forest Resources Management, Forest Economics

ADJUNCT PROFESSORS

- Shawn Grushecky - Ph.D. (West Virginia University)
  Appalachian Hardwood Center, Energy land management
- Patricia M. Mazik - – Ph.D. (Memphis State University)
  Aquatic toxicology, fish physiology
- Sheldon Owen - Ph.D. (West Virginia University)
  Extension wildlife specialist
- Stuart A. Welsh - Ph.D. (West Virginia University)
  Ichthyology

- Petra B. Wood - Ph.D. (University of Florida)
  Avian ecology

Admissions

Prerequisite requirements are similar to those in other biological sciences. The student should have completed basic courses in the physical and biological sciences, including genetics, nutrition, and physiology. Deficiencies may prolong the time needed to complete degree programs. Meeting the above requirements shall not guarantee the applicant admission because each professor will accept only the number of students that can be supervised adequately with available facilities, time, and funds.

Agricultural and Resource Economics

Alan R. Collins, Graduate Program Coordinator
e-mail: Alan.Collins@mail.wvu.edu

Degrees Offered

- Master of Science with a major in in Agricultural and Resource Economics

The faculty in Agricultural and Resource Economics (ARE) offer a master's and a doctoral degree. The master's degree can serve as either a professional degree beyond a bachelor's degree, or it can prepare a candidate for studies at the doctoral level.

Candidates for the master of science degree may be admitted on a regular or provisional basis. Prerequisites for admission include the following:

- Twelve or more semester credits in economics, agricultural and resource economics, statistics, or appropriate social science courses (should include a course in intermediate microeconomics)
- Three or more semester hours of credit in calculus

Students lacking these prerequisites have to complete coursework to acquire them. Graduate programs are planned to ensure that candidates develop competence in the following:

- Communicating economic policy issues
- Theoretical and analytical skills to analyze and evaluate economic policies
- Research to develop economic policy proposals

A candidate for the M.S. degree in Agricultural and Resource Economics must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Graduate courses offered toward the degree must be approved by the student's graduate committee. Thesis and non-thesis options are available for the master's degree. Students should select one option by the time twelve hours of coursework are completed (usually by the end of the first semester in the program) and after consulting with their graduate advisor or committee. Candidates with graduate research assistantships must select the thesis option.

THESIS OPTION

A minimum of thirty credit hours of approved coursework can include not more than six hours of credit for the thesis. Proficiency in economics plus agricultural and resource economics is expected. Approved courses in closely related areas may be included. The student's graduate committee must approve the student's course of study and thesis topic.

COURSEWORK OPTION

A minimum of thirty-six credit hours of approved coursework to provide proficiency in economics, resource, and agricultural and resource economics. Courses in closely related areas may be included if approved by the student's graduate committee. The student must satisfactorily complete a written and oral examination administered by the student's graduate committee.

Forest Resources Science

Degree Offered

- Doctor of Philosophy with a major in Forest Resources Science

AREAS OF EMPHASIS OFFERED

- Forest Resource Management
- Recreation, Parks, and Tourism Resources
- Wildlife and Fisheries Resources
- Wood Science and Technology

The Division of Forestry and Natural Resources also offers a program option leading to the degree of doctor of philosophy in forest resources science. Students who choose this option have the opportunity to choose one of the following as their major field of study: forest resources management; recreation, parks, and tourism resources; wood science and technology, or wildlife and fisheries resources. Within these major fields of study, specialization is limited only by the range of competencies in the graduate faculty.

Admissions

A student seeking admission to work toward the degree of doctor of philosophy in forest resources science in the Davis College of Agriculture, Natural Resources, and Design may choose as the major field of study forest resources management; recreation, parks, and tourism resources; wood science and technology; or wildlife and fisheries resources. Within these major fields of study, specialization is limited only by the range of competencies in the graduate faculty.

A candidate for the Ph.D. degree in Forest Resources Science must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study
Research
Candidacy Exam
Dissertation
Dissertation Defense

Curriculum requirements for all Ph.D. candidates include a block of graduate courses in the major field, which will constitute a comprehensive review of the significant knowledge in that field and a block of graduate courses in a minor field of study. A minimum of sixty semester hours beyond the bachelor's degree and exclusive of the dissertation is required.

DISSERTATION AND FINAL EXAMINATION

The research work for the doctoral dissertation must show a high degree of scholarship and must present an original contribution to the field of forest resources science. In addition to coursework and the dissertation, the candidate is required to pass a qualifying examination and a final examination.

Forestry

Degree Offered

- Master of Science in Forestry with a major in Forestry.

AREAS OF EMPHASIS OFFERED

- Forest Resources Management

- Wood Science and Technology

Students seeking admission for the degree of master of science in forestry should have completed an undergraduate curriculum emphasizing forestry or wood science. A student whose undergraduate degree is in a field other than these two areas of study will ordinarily be required to take supplemental undergraduate courses. Candidates may emphasize study in bioenergy, biocomposites, forest biometry, forest ecology, forest economics, forest hydrology, forest management, forest operations, silviculture, sustainable construction, or forest products marketing. The candidate must complete thirty hours of approved study, six hours which shall constitute a thesis, or thirty-six hours of approved study without a thesis but including a three-hour problem paper. For details regarding the Forest Resources Management Program, go to: http://forestresources.wvu.edu/. For details regarding the Wood Science and Technology Program, go to: http://woodscience.wvu.edu/.

A candidate for the M.S.F. degree in Forestry must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S.F. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Candidates for the degree may emphasize in forest biometry, forest ecology, forest economics, forest business, forest management, forest hydrology, silviculture, wood science and technology, forest operations, wood composites, wood marketing, bio-energy, or bio-fuels. The candidate must complete thirty hours of approved study, six hours of which shall constitute a thesis. The program ordinarily requires two years of residence. The master of science in forestry has a non-thesis option. For this option, the candidate must complete thirty-six hours of approved study, eight hours of which shall consist of an applied problem as approved by the candidate's graduate committee. The Division of Forestry and Natural Resources in the Davis College of Agriculture, Natural Resources, and Design requires three letters of recommendation and a one-page goal statement which identifies the area of specialization the student desires to study.

Human and Community Development

Alan R. Collins, Graduate Program Coordinator
e-mail: Alan.Collins@mail.wvu.edu

Degrees Offered

- Doctor of Philosophy in Resource Management

The Ph.D. degree is the most advanced degree offered and prepares candidates for work at the highest level of the profession as a faculty member, staff in a research organization or governmental and non-governmental agencies, or as a consultant.

A candidate for the Ph.D. degree in Human and Community Development must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study
Research
Candidacy Exam
Dissertation
Dissertation Defense

Natural Resource Economics

Alan R. Collins, Graduate Program Coordinator
e-mail: Alan.Collins@mail.wvu.edu

Degrees Offered

* Doctor of Philosophy in Natural Resource Economics

The Ph.D. degree is the most advanced degree offered and prepares candidates for work at the highest level of the profession as a faculty member, staff in a research organization or governmental and non-governmental agencies, or as a consultant.

A candidate for the Ph.D. degree in Natural Resource Economics must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study
Research
Candidacy Exam
Dissertation
Dissertation Defense

Recreation, Parks, and Tourism Resources

Degrees Offered

* Master of Science with a major in Recreation, Parks, and Tourism Resources

The Division of Forestry and Natural Resources offers program options leading to the master of science for students who wish to major in Recreation, Parks, and Tourism Resources. Students selecting this graduate program may focus on field-related specialties including (but not limited to) recreation management and policy, environmental interpretation, and natural resource-based tourism. All students are required to complete a total of thirty-five credit hours and complete a thesis.

Students seeking admission for the degree of Master of Science in recreation, parks, and tourism resources should have completed an undergraduate curriculum emphasizing natural resources recreation. A student whose undergraduate degree is in a field other than this discipline will ordinarily be required to take supplemental undergraduate courses as part of their degree work. Students selecting this graduate program may emphasize recreation management and policy, environmental education and interpretation, or natural resource-based tourism. All students are required to complete a total of thirty-five credit hours and complete a thesis. For more information, go to: http://recreation.wvu.edu/.

A candidate for the M.S. degree in Recreation, Parks, and Tourism must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Research Methods and Statistics courses		8
FOR 470	Problems in Forestry, Wood Science, Wildlife, or Recreation	
STAT 511	Statistical Methods 1	
or EDP 613	Statistical Methods 1	
RPTR 796	Graduate Seminar (taken twice)	
Recreation, Parks, & Tourism Resources courses		12
FOR 670	Human Dimensions of Natural Resource Management	
RPTR 714	Outdoor Recreation Behavior	

RPTR 680	Non-Personal Interpretation	
RPTR 685	Personal Interpretation	
RPTR 738	Tourism Planning	
RPTR 693	Special Topics	
Cognate Area		12
Four courses in a chosen cognate area		
FOR 698	Thesis or Dissertation	3
Total Hours		**35**

A thesis requires collecting a qualitative or quantitative data set for the purpose of conducting action-oriented research (e.g., program or needs assessments), cooperative research (e.g, cooperative problem solving), and/or theory development (e.g., hypothesis testing). The specific requirements for each student are determined by the thesis chair and committee members. This program ordinarily requires two years of residence.

Resource Management

Alan R. Collins, Graduate Program Coordinator
e-mail: Alan.Collins@mail.wvu.edu

Degrees Offered

• Doctor of Philosophy in Resource Management

The Ph.D. degree is the most advanced degree offered and prepares candidates for work at the highest level of the profession as a faculty member, staff in a research organization or governmental and non-governmental agencies, or as a consultant.

A candidate for the Ph.D. degree in Resource Management must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate catalog.

Program Requirements

All Ph.D. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study
Research
Candidacy Exam
Dissertation
Dissertation Defense

Wildlife and Fisheries Resources

Degrees Offered

• Master of Science with a major in Wildlife and Fisheries Resources

The Wildlife and Fisheries Resources Program at WVU is dedicated to developing the next generation of young fisheries and wildlife professionals. This program offers two levels of advanced degree with a master of science in wildlife and fisheries resources and a Ph.D. in forest resources available. At the M.S. or Ph.D. level, students work closely with their faculty advisor and mentor to develop a unique research program that will prepare them for a career in this field. Coursework for these degrees varies depending upon the career goals of the student, past course history, and educational needs for the intended research project. Since 2011, we have required that all graduates complete necessary coursework to obtain professional certification as a biologist by The Wildlife Society or The American Fisheries Society by the time of graduation. Typically all students take two semesters of statistics (STAT 511 and 512) and an advanced GIS class. Students interested in graduate study in our program can apply online through the graduate admissions office but are encouraged to contact faculty members who may share their research interests.

Admissions

Students seeking admission for the degree of Master of Science in wildlife and fisheries resources should have completed an undergraduate curriculum emphasizing wildlife and/or fisheries sciences. A student whose undergraduate degree is in a field other than this discipline will ordinarily be required to take supplemental undergraduate courses as part of their degree work. Students selecting this graduate program may emphasize in either wildlife or

fisheries resources in their studies. The candidate must complete thirty hours of approved study, six hours which shall constitute a thesis, or thirty-six hours of approved study without a thesis but including a three-hour problem paper. For more information, go to: http://wildlife.wvu.edu/.

A candidate for the M.S. degree in Wildlife and Fisheries Resources must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements

All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

A minimum cumulative GPA of 3.0 is required in all courses applied toward degree requirements.

Course Requirements as determined by the Plan of Study [*]	30
Total Hours	**30**

[*]   Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

Eberly College of Arts and Sciences

The Eberly College of Arts and Sciences, West Virginia University's largest college, has approximately 460 faculty in academic departments and program areas in the following: literature and the humanities, social and behavioral sciences, and mathematics and natural sciences. These departments occupy twelve buildings on the Downtown campus and include programs that lead to master's degrees in twenty fields and doctoral degrees in twelve fields. Many of the faculty have earned distinguished national and international reputations and have been honored for excellence in teaching, research, and service. Their awards not only acknowledge extreme dedication but also accentuate the relationship between the faculty and students. Graduate students often collaborate with faculty on specialized research projects which lead to publications in national and international journals.

Degrees Offered

Graduate programs leading to a master's degree are available in biology, chemistry, communication studies, english, world languages, forensic and investigative science, geography, geology, history, legal studies, liberal arts, mathematics, physics, psychology, public administration, social work, sociology and anthropology, and statistics. Each program prepares students for further study or for productive roles in professional environments. Information concerning graduate programs in the Eberly College of Arts and Sciences may be obtained by contacting the Graduate Records Assistant, Eberly College of Arts and Sciences, 201 Woodburn Hall, West Virginia University, P.O. Box 6286, Morgantown, WV 26505-6286; telephone (304) 293-4611.

- Master of Science, Doctor of Philosophy in Biology
- Master of Science, Doctor of Philosophy in Chemistry
- Master of Arts, Doctor of Philosophy in Communication Studies
- Master of Arts, Master of Fine Arts, Doctor of Philosophy in English
- Master of Arts in Foreign Languages
- Master of Science in Forensic Science
- Master of Arts, Doctor of Philosophy in Geography
- Master of Science, Doctor of Philosophy in Geology
- Master of Arts in History and Public History, Doctor of Philosophy in History
- Master of Legal Studies
- Master of Science, Doctor of Philosophy in Mathematics
- Master of Science, Doctor of Philosophy in Physics
- Master of Arts, Doctor Philosophy in Political Science
- Master of Science, Doctor of Philosophy in Psychology
- Master of Public Administration
- Master of Social Work
- Master of Arts, Doctor of Philosophy in Sociology and Anthropology
- Master of Science in Statistics

The Eberly College of Arts and Sciences offers doctoral programs in biology, chemistry, communication studies, english, geography, geology, history, mathematics, physics, political science, psychology, sociology, and statistics. Available research or teaching concentrations are as follows:

- Biology—ecology and evolutionary biology, forensic biology, genetics and genome biology, and neurobiology and endocrinology
- Chemistry—analytical, biological, inorganic, organic, and physical
- Communication studies—instructional, interpersonal, and organizational
- English—literature
- Geography—human geography, environmental geography, geographic information science
- Geology—energy geology, geophysics, hydrogeology, environmental geology
- History—United States (Appalachia), Europe, Africa, science, and technology
- Mathematics—selected areas of pure, applied, and discrete mathematics
- Physics—condensed matter, applied physics, plasma physics, astrophysics, electro-optics, elementary particle physics, and radio astronomy
- Political science—public policy analysis (domestic and international)
- Psychology—behavior analysis, behavioral neuroscience, clinical psychology, clinical child psychology, and developmental psychology
- Sociology--crime, community, and culture
- Statistics—statistical machine learning, computational statistics, statistical theory

ADMINISTRATION

DEAN

- Maryanne Reed - M.S.
  Northwestern University

ASSOCIATE DEANS

- Joan S. Gorham - Ed.D. (Northern Illinois University)
  Associate Dean for Academic Affairs
- Valerie Lastinger - Ph.D. (University of Georgia)
  Associate Dean for Undergraduate Studies
- Asuntina S. Levelle - J.D. (West Virginia University)
  Associate Dean for Financial Planning and Management
- Tracy L. Morris - Ph.D. (University of Mississippi)
  Associate Dean for Research, Graduate Studies, and Outreach
- Michael Perone - Ph.D. (University of Wisconsin)
  Associate Dean for Faculty

ASSISTANT DEAN

- Drew Chelosky
  Assistant Dean for Development
- Katie Stores - Ph.D. (West Virginia University)
  Assistant Dean for Research

Degree Designation Learning Goals

MASTER OF ARTS (MA)

The Eberly College of Arts and Sciences offers numerous MA programs.

Students earning an MA degree will be able to:

- Describe the student's discipline, field, sub-field, area, and subject.
- Proficiently communicate area and subject matter specific concepts orally and in writing.
- Explain the role of inquiry, research, and/or creativity in addressing questions, issues, problems, and/or opportunities pertaining to the student's subject area.
- Construct a theoretical and/or creative framework that addresses a particular question, issue, problem, and/or opportunity pertaining to the students' subject area and generalize that framework to aid in understanding similar questions, issues, problems, and/or opportunities.
- Apply research skills and/or creative abilities to analyze and/or explore the student's subject area.
- Produce and defend original research and/or creative work in the student's area of study.
- Discuss future research and/or creative work that might follow from the student's project.
- Articulate the student's contribution to his or her research and/or creative community.

MASTER OF LEGAL STUDIES (MLS)

The MLS program is designed for professionals practicing in areas such as human relations, criminal and juvenile justice, court administration (including probation officers), healthcare administration, social work, regulatory agencies, county and municipal government, law enforcement, national security, journalism, business – and for other professionals who work with, although not necessarily in, the legal system.

Students earning an MLS degree will be able to:

- Demonstrate an understanding of the United States legal system.
- Demonstrate an understanding of legal research practices.
- Demonstrate an understanding of the relationships between law and society.
- Demonstrate an understanding of the administrative legal process.
- Demonstrate an understanding of the legislative process at the local, state, and national levels.
- Demonstrate an understanding of alternative dispute resolution processes
- Demonstrate basic familiarity with family law, employment law, commerce law, criminal law and procedure, healthcare law, constitutional law, media and the law, and/or administrative ethics (depending on the student's specific coursework).
- Produce a major research paper as part of the student's capstone course.

- Apply program knowledge and skills to perform the student's job more effectively, advance in the student's current career field, and/or venture into other professional endeavors.
- Provide private and public organizations the benefit of enhanced knowledge about the United States legal system.

MASTER OF SCIENCE (MS)

The Eberly College of Arts and Sciences offers numerous MS programs.

Students earning an MS degree will be able to:

- Describe the student's discipline, field, sub-field, area, and subject.
- Proficiently communicate area and subject matter specific concepts orally and in writing.
- Specify a focused research question based on description, explanation, interpretation, and/or prediction.
- Explain why the student's research question, area, and/or topic is important and worthy of investigation.
- Synthesize a literature review discussing what is already known from other scholars about the student's research question, area, or topic.
- Describe the gaps in existing knowledge and discuss the specific gap(s) the student's research addresses.
- State the student's theory or perspective and the hypothesis(es) or interpretation(s) that follow(s) from that theory or perspective.
- Specify the student's research design including how hypotheses will be tested and how the usefulness of the theory or perspective will be assessed.
- Describe the units of analysis and data used – including all sources and data collection/compilation procedures.
- Describe the methodology(ies) used – and the appropriateness of those methods.
- Discuss the student's findings – statistically (if appropriate for the methodology employed) and substantively (for all methodologies employed).
- Summarize primary conclusions and the student's contribution to his or her research area, program, and community.

Discuss future research that might follow from the student's project and findings.

MASTER OF SOCIAL WORK (MSW)

Students earning an MSW degree will be able to:

- Identify as a professional social worker
- Apply ethical principals
- Apply critical thinking
- Engage diversity in practice
- Advance human rights and social and economic justice
- Engage in research-informed practiced and practice-informed research
- Apply human behavior knowledge
- Engage in policy practice to advance well-being and deliver services
- Respond to practice contexts
- Demonstrate competency in practice engagement
- Demonstrate competency in practice assessment
- Demonstrate competency in practice intervention
- Demonstrate competency in practice evaluation

DOCTOR OF PHILOSOPHY (PHD)

The Eberly College of Arts and Sciences offers numerous doctoral programs.

Students earning a doctoral degree will be able to:

- Achieve all learning goals listed above under the MA or MS degree (depending on the student's research or creative area)
- Effectively communicate, orally and in writing, the state of knowledge in the student's discipline, field, sub-field, and specific research or creative area.
- Conduct independent and original research or creative work of publishable quality
- Teach, at any undergraduate level or beyond, core courses in the student's discipline and field and specialized courses in the student's sub-field and research or creative area.
- Write research manuscripts or creative work leading to refereed or juried publications.

Biology

Degrees Offered

- Master of Science
- Doctor of Philosophy

Nature of the Program

The Department of Biology's graduate program is dedicated to scholarship in academics and research. The objectives of the program are to empower students through the following:

1. Recognize important biological problems
2. Design, execute, and analyze experiments aimed at solving important problems
3. Communicate their findings in oral and written form
4. Foster an awareness of the social and political issues of the day related to biology
5. Create a desire to continue independent study after graduation

The Department of Biology offers graduate courses and research that lead to M.S. and Ph.D. degrees in biology. The focal areas of research in the graduate program are: biochemistry and molecular biology, bioinformatics, genetics, genomics and evolutionary biology, biology education, cell and developmental biology, ecology, forensic biology, neurobiology, behavior and physiology, and plant sciences.

FACULTY

CHAIRPERSON

- Richard B. Thomas - Ph.D. (Clemson University)

PROFESSORS

- Ashok Bidwai - Ph.D. (Utah State University)
  Biochemical and Molecular Genetic Analysis of Protein Kinases
- Jonathan R. Cumming - Ph.D. (Cornell University)
  Plant Physiology, Rhizosphere Ecology
- Jorge A. Flores - Ph.D. (George Washington University)
  Endocrinology of Reproduction, Signal Transduction
- James B. McGraw - Ph.D. (Duke University)
  Plant Ecology, Plant Population Biology, Conservation Biology
- Richard B. Thomas - Ph.D. (Clemson University)
  Physiological Plant Ecology, Global Environmental Change

ASSOCIATE PROFESSOR

- Jim Belanger - Ph.D. (University of Toronto)
  Neural Basis of Behavior, Adaptive Behavior, Comparative Physiology
- Clifton P. Bishop - Ph.D. (University of Virginia)
  Developmental and Molecular Biology of Drosophila
- Kevin C. Daly - Ph.D. (University of Arizona)
  Psychophysics and Neurophysiology of Manduca Sexta
- Stephen DiFazio - Ph.D. (Oregon State University)
  Plant Genomics, Ecological Genetics
- Sarah M. Farris - Ph.D. (University of Illinois)
  Nervous System Evolution and Development, Entomology
- William T. Peterjohn - Ph.D. (Duke University)
  Biogeochemistry, Ecosystem Ecology

ASSISTANT PROFESSOR

- Andrew Dacks - Ph.D. (University of Arizona)
  Neural Basis of Behavior States, Nervous System Evolution
- Jennifer Gallagher - Ph.D. (Yale University)
  Molecular Mechanisms of Genetic Variation
- Jennifer Hawkins - Ph.D. (Iowa State University)

Plant Comparative Genomics, Molecular Evolution, Regulation of Gene Expression

- Gary Marsat - Ph.D. (McGill University)
  Sensory Processing of Communication Signals; Systems Neuroscience and Computational Neuroscience
- Rita V. M. Rio - Ph.D. (Yale University)
  Microbial Symbiosis, Functional Genomics, Vector-borne Diseases
- Shuo Wei - Ph.D. (University of Miami, Florida)
  Molecular and Cellular Mechanisms of Early Vertebrate Development; Protease Biochemistry
- Michelle D. Withers - Ph.D. (University of Arizona)
  Biology Education: Scientific Teaching

CLINICAL ASSOCIATE PROFESSOR

- Donna Ford-Werntz - Ph.D. (Washington University, St. Louis)
  Plant Systematics

PREREQUISITES AND ADMISSION

The program for the degree of doctor of philosophy reflects a flexible, research-oriented approach geared to develop the interests, capabilities, and potentials of mature students. Applicants must have met all the entrance requirements listed above for the master of science program, but a fiftieth percentile ranking or higher in the verbal quantitative and analytical section of the Graduate Record Examination is expected. Acceptance into the Ph.D. program is by vote of the Graduate Committee of the Department of Biology. This committee ensures that all entrance requirements are met or that provisions have been made to remedy the deficiencies, and that facilities and personnel are adequate to support the program to a successful conclusion.

Master of Science

Students must have a program of study formulated and approved by an Advisory Committee at the end of the second semester of entering the M.S. program. The program of study outlines the coursework to be taken in support of the proposed research. The advisory committee ensures that all of the Department of Biology, Eberly College of Arts and Sciences, and University requirements are met during the course of the student's program of study.

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Biology Coursework (400, 500, 600, 700-level)		18
Research		6
BIOL 797	Research (Repeated)	
Graduate Seminars		6
BIOL 796	Graduate Seminar (Repeated)	
Departmental Seminars		3
BIOL 799	Graduate Colloquium (Repeated for at least 3 semesters)	
Thesis Proposal		
Thesis		
Thesis Defense		
Total Hours		**33**

THESIS

All M.S. students must write and defend a thesis. A final oral examination is administered after an original, written thesis has been submitted to the Advisory Committee. Full-time students in the department are expected to complete all requirements for the program within four years. Regardless of status, all requirements for the M.S. degree must be completed within a period of eight years, starting with the initial enrollment after the most recent degree.

Doctor of Philosophy

Each student admitted to the Ph.D. program works under the close supervision of a faculty research advisor and an advisory committee; details on the composition and establishment of an advisory committee are available in the department's Graduate Student Handbook. Students must have a program of study formulated and approved by the end of the second semester of entering the Ph.D. program; all deficiencies must have been removed earlier. Significant deviations from an established program of study require approval from the advisory committee and the Graduate Committee.

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Biology Coursework (400, 500, 600, 700-level)	18
Graduate Seminar	2

BIOL 796	Graduate Seminar (Repeated)	
Research		6
BIOL 797	Research (Repeated)	
Comprehensive Examination		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**26**

EXAMINATIONS AND DISSERTATION PROPOSAL

The advisory committee is responsible for overseeing the progress of the student and for administering and judging performance in the required examinations. The advisory committee ensures that all of the Department of Biology, Eberly College of Arts and Sciences, and University requirements are met during the course of the student's program of study. The program of study outlines the coursework to be taken in support of the proposed research.

Students must successfully complete a preliminary exam with written and oral components before being promoted to candidacy for the Ph.D. The preliminary exam is given no later than the end of the third semester in residence. All doctoral students must also write and defend a research proposal (the proposal exam) no later than the end of the fourth semester in residence.

CANDIDACY

Successful passage of the preliminary examination leads to promotion to candidacy. Because the qualifying examination attests to the academic competence of the student who will become an independent researcher or practitioner, the examination cannot precede the conferring of the degree by an extended period. Consequently, doctoral candidates are allowed no more than five years in which to complete remaining degree requirements (http://catalog.wvu.edu/graduate/advisingcoursesdegrees/#Doctoral_Coursework). The expected time to completion of the Ph.D. degree is four-five years; however, all requirements for a graduate degree must be completed within a period of eight years, starting with the initial enrollment after the most recent degree. The final examination consists of the submission of a completed and acceptable written dissertation and an oral dissertation defense. A formal departmental seminar covering the dissertation research must be presented before graduation.

Chemistry

Degrees Offered

- Master of Science
- Doctor of Philosophy

Nature of the Program

The Department of Chemistry offers graduate studies leading to the degrees of master of science and doctor of philosophy with research concentration in the areas of analytical, biological, inorganic, organic, and physical chemistry. The master of science and doctor of philosophy degrees require completion of a research project which represents the principal component of the graduate program. The M.S. program is limited in scope and involves advanced coursework and a study of a problem in chemical research culminating in the preparation and oral defense of a M.S. thesis.

The Ph.D. program has a much wider scope than the M.S. program. Ph.D. students are expected to take a broad range of advanced coursework, both within and outside of the major area of interest. The major emphasis of the Ph.D. program is on research. A typical research problem may take several years to complete and involves many advanced techniques and concepts at the frontiers of chemical knowledge. The Ph.D. program culminates in the preparation and defense of the Ph.D. dissertation.

The program for the degree of doctor of philosophy reflects a flexible, research-oriented approach geared to develop the interests, capability, and potential of students. A program of courses is recommended to suit individual needs based on background and ability. These courses are classified as basic graduate courses, which present the essentials of a given discipline on an advanced level, and specialized graduate courses, which take one to the frontiers in a specific area of research. The course offerings are designed to provide guidelines from which students can launch their independent studies in preparation for candidacy examinations. Students are required to enroll in the departmental seminar program and attend special lectures and seminars offered by visiting scientists. Graduate students in the Ph.D. program are required to satisfactorily complete a minimum of three courses (three credits each) at the 500 to 700-level offered by the Department of Chemistry and distributed in at least two areas outside their major area of research. In addition, each major area in chemistry requires students in that area to enroll in basic graduate courses presenting the essentials of that discipline on an advanced level.

FACULTY

CHAIR

- Kung K. Wang - Ph.D. (Purdue University)
  Eberly Distinguished Professor of Chemistry, Organic Chemistry, Stereoselective Synthesis, Natural Products

ASSOCIATE CHAIR

- Jeffrey L. Petersen - Ph.D. (University of Wisconsin-Madison)
  Physical Inorganic Chemistry, Electrophillic Transition Metal Compleses, X-ray Crystallography

PROFESSORS

- Harry O. Finklea - Ph.D. (California Institute of Technology)
  Analytical/Physical Chemistry, Electron Transfer Kinetics, Solid Oxide Fuel Cells, Gas Phase Sensors
- Terry Gullion - Ph.D. (William and Mary)
  Physical Chemistry, Solid State NMR, Biological Materials, Polymers
- Charles Jaffe - Ph.D. (University of Colorado)
  Theoretical Chemistry, Molecular Dynamics, Chaotic Systems
- Fred L. King - Ph.D. (University of Virginia)
  Analytical Chemistry, Mass Spectrometry, Trace Elements, Gas-phase Chemistry
- John H. Penn - Ph.D. (Universiy of Wisconsin-Madison)
  Chemical Education, Online Instruction Methods in Organic Chemistry
- Kenneth Showalter - Ph.D. (University of Colorado)
  Bennett Distinguished Professor, Physical Chemistry, Chemical Kinetics, Multistability and Oscillating Systems
- Bjorn C. Soderberg - Ph.D. (Royal Institute of Technology, Sweden)
  Organic Synthesis Using Transition Metals

ASSOCIATE PROFESSOR

- Suzanne Bell - Ph.D. (New Mexico State University)
  Analytical Chemistry, Forensic Science
- Lisa Holland - Ph.D. (University of North Carolina-Chapel Hill)
  Micro-separations, High Throughput Drug Screening
- Michelle Richards-Babb - Ph.D. (Lehigh University)
  Chemical Education
- X. Michael Shi - Ph.D. (University of Maryland)
  Organic Synthesis, Bioorganic Chemistry
- Ronald B. Smart - Ph.D. (University of Michigan)
  Environmental Analytical Chemistry, Electrochemistry, Trace Metals, Coal Chemistry
- Alan M. Stolzenberg - Ph.D. (Stanford University)
  Inorganic Chemistry, Bioinorganic Chemistry, Organometallic Chemistry

ASSISTANT PROFESSOR

- Jonathan Boyd - Ph.D. (Texas Tech University)
  Analytical Biochemistry and Toxicology
- Fabien Goulay - Ph.D. (University of Rennes, France)
  Physical Chemistry, Laser Spectroscopy
- Jessica Hoover - Ph.D. (University of Washington)
  Organometallic Chemistry, Catalysis
- Justin Legleiter - Ph.D. (Carnegie Mellon University)
  Biophysical Chemistry, Atomic Force Microscopy
- Blake Mertz - Ph.D. (Iowa State University)
  Computational Biophysics and Chemistry
- Brian Popp - Ph.D. (University of Wisconsin-Madison)
  Organic and Organometallic Chemistry, Catalysis
- Stephen Valentine - Ph.D. (Indiana University)
  Mass Spectrometric Analysis of Biomolecules

Admission

Applicants for graduate studies in chemistry must have a bachelor's degree as a minimum requirement. Applicants must have a major or concentration in chemistry and an appropriate background in physics and mathematics. All entering graduate students in chemistry are required to take departmental guidance examinations in the major areas of chemistry. These examinations, at the undergraduate level, are administered before registration and serve to guide the faculty in recommending a course program for the beginning graduate student. Deficiencies revealed by the departmental guidance examinations need to be corrected in a manner prescribed by the faculty.

Master of Science

A research project is chosen in the area of the student's interest and in consultation with the faculty. The thesis defense shows the ability of the student to defend scientific conclusions based on their research project.

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Chemistry Coursework (400, 500, 600, 700-level)		22
Research		6
CHEM 797	Research (Repeated)	
CHEM 796	Graduate Seminar	1
CHEM 789	Research Seminar	1
Thesis		
Thesis Defense		
Total Hours		**30**

Thesis/Credits

Graduate students in the M.S. program in chemistry are required to submit a research thesis. They may apply up to 6 hours of research credit toward the 30-hour requirement. The remaining 24 hours of credit must be earned in the basic graduate courses which reflect a diversified exposure to chemistry; no more than 10 hours may be elected outside the department, and coursework taken at the 500 to 700-level must include at least three 3-credit-hour courses distributed in at least two areas outside the student's major area of research. Students are required to enroll in the departmental seminar program and are required to attend special lectures and seminars offered by visiting scientists. A final oral examination is administered after completion and submission of the thesis.

Doctor of Philosophy

Students are required to enroll in the departmental seminar program and attend special lectures and seminars offered by visiting scientists. In addition, each major area in chemistry requires students in that area to enroll in basic graduate courses presenting the essentials of that discipline on an advanced level.

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Chemistry Coursework (500, 600, 700-level) [*]		9
Graduate Research		24
CHEM 797	Research (Repeated)	
Research Seminar		4
CHEM 789	Research Seminar (Repeated)	
Graduate Seminar		4
CHEM 796	Graduate Seminar (Repeated)	
Comprehensive Examination		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**41**

[*]   Graduate students in the Ph.D. program are required to satisfactorily complete a minimum of three courses (three credits each) at the 500 to 700-level offered by the Department of Chemistry and distributed in at least two areas outside their major area of research.

Research

Research, which is the major theme of graduate studies, may be initiated as early as the student and faculty feel appropriate for the individual. Normally, a student will begin laboratory work no later than the second semester. Upon successful completion of an original piece of research, the candidate will present results in a Ph.D. dissertation and, at the appropriate time, defend the work in a final oral examination.

Candidacy

Candidacy examinations contain written and oral portions. The written examinations are of the cumulative type and are offered eight times a year. After notification of successful completion of the written cumulative exams, the student will present and defend an original research proposal. The proposal must demonstrate originality and independence on the part of the student. This proposal is presented in writing to the student's research committee and defended before that group and any other interested faculty members.

Communication Studies

Degrees Offered

- Master of Arts
- Doctor of Philosophy

Nature of Program

The Department of Communication Studies offers the M.A. and the Ph.D. degrees in Communication Studies. Communication scholars seek to discover the mechanisms and rules that govern the wide range of communication activities using a battery of social scientific techniques. We try to develop theories that will account for why we act the way we do. The graduate faculty in the Department of Communication Studies is well-known at the regional, national, and international level for accomplishments in research, teaching, and service.

The Department of Communication Studies offers work leading to the degree of master of arts. Persons who possess a bachelor's degree from an accredited college or university may be admitted to the program. Qualified graduate students from a variety of disciplines are admitted to the program. The master of arts degree program is intended to qualify the student to do the following:

- Assume a variety of professional roles in educational, organizational, health, governmental, or media institutions
- Teach the subject matter in high school and/or college
- Undertake advanced training toward a doctorate in the behavioral/social sciences

The M.A. in Communication Studies offers three areas of emphasis:

COMMUNICATIONS THEORY & RESEARCH AREA OF EMPHASIS

All students planning to continue graduate study past the M.A. level are encouraged to enter this program.

CORPORATE & ORGANIZATIONAL COMMUNICATION AREA OF EMPHASIS

All students planning a professional career in a field other than education are encouraged to enter this program. This is normally a terminal degree program in communication studies.

COMMUNICATION IN INSTRUCTION AREA OF EMPHASIS

All students planning a professional career in elementary or secondary education are encouraged to enter this program. This is normally a terminal degree program in communication studies. Students may complete this program through off-campus study, on-campus study, or a combination.

The Ph.D. program in Communication Studies is one that affords students the opportunity to focus on numerous domains of communication, including instructional communication, interpersonal communication, health communication, and mediated communication, among others.

FACULTY

CHAIR

- Matthew M. Martin - Ph.D. (Kent State University)

PROFESSORS

- Melanie Booth-Butterfield - Ph.D. (University of Missouri)
  McConnell Chair in Speech Communication, Health and Interpersonal Communication
- Joan S. Gorham - Ph.D. (Northern Illinois University)
  Associate Dean, Instructional, Intercultural, and Mass Media

- Matthew M. Martin - Ph.D. (Kent State University)
  Chairperson, Interpersonal, Instructional, Communication Traits
- Scott A. Myers - Ph.D. (Kent State University)
  Group, Instructional, Interpersonal
- Keith Weber - Ed.D. (West Virginia University)
  Communication Campaigns, Quantitative Methods, Instructional Communication

ASSOCIATE PROFESSOR

- Megan Dillow - Ph.D. (Pennsylvania State University)
  Interpersonal Communication, Communication Theory, Relational Communication
- Alan Goodboy - Ph.D. (West Virginia University)
  Instructional Communication, Interpersonal Communication, Quantitative Methods
- Brian R. Patterson - Ph.D. (University of Oklahoma)
  Developmental Communications, Communication Theory
- Andrea Weber - Ed.D. (West Virginia University)
  Communication Assessment, Leadership, Communication Ethics

ASSISTANT PROFESSOR

- Jaime Banks - Ph.D. (Colorado State University)
  Communication Technology, Human Identity, Social Network Analysis
- Nicholas Bowman - Ph.D. (Michigan State University)
  Communication Technology, Media Psychology, Mass Communication, Media Effects, Entertainment and Emotion
- Elizabeth Cohen - Ph.D. (Georgia State University)
  Media Psychology, Entertainment Education, New Media, Health and Risk Communication
- Christy Rittenour - Ph.D. (University of Nebraska)
  Family, Life-span, Interpersonal

PROFESSOR EMERITA

- Virginia P. Richmond - Ph.D. (University of Nebraska)

APPLYING FOR ADMISSION TO THE PROGRAM

To apply for admission to the Ph.D. program, applicants must submit the following materials:

1. The application for admission to graduate school at West Virginia University.
2. Scores on the Graduate Record Examination (GRE). Applicants should have a minimum combined score in the 290-310 range on the verbal and quantitative components of the GRE and a minimum score of 4.0 on the analytical component of the GRE. Scores should not be older than five years at the time of application.
3. Scores on the Test of English as a Foreign Language Examination (TOEFL) (for international students only whose native language is not English). Scores will be accepted from any of three versions (i.e., internet-based test, computer-based test, paper-based test). Applicants should score in the ninetieth percentile of the test version taken.
4. All official undergraduate and graduate transcripts. Transcripts must be mailed directly from the registrar of the college and/or university attended. Applicants should have a minimum undergraduate GPA of 3.00 and a minimum graduate GPA of 3.30.
5. A vita. The vita should include all formal education, any teaching or professional work experience, and any research projects conducted to date.
6. A statement of interest. The statement of interest is a three to four-page, typed document in which applicants identify the following:
   -
   - their reasons for pursuing a Ph.D. in communication studies
   - their reasons for wanting to attain their Ph.D. degree in communication studies at West Virginia University
   - their research interests and how these interests correspond with the research conducted by the department faculty
   - the faculty members whose research interests are most closely aligned with their own educational and career goals
   - why attaining the Ph.D. degree in communication studies specifically from West Virginia University is vital to the achievement of their career goals
7. Three letters of recommendation from individuals familiar with the applicant's academic progress and potential. These letters of recommendation should address whether the applicant has the ability to succeed in the Ph.D. program in communication studies at West Virginia University as both a Ph.D. student and as a graduate teaching assistant.
8. A sole-authored sample of scholarly writing completed in the applicant's M.A. program. This sample can be a course paper, a convention paper, a thesis or major project, or a journal article.

9. Any additional supporting evidence. This evidence can include, but is not limited to, awards received for outstanding research, teaching, or academic endeavors; a convention paper or journal article of which the applicant is a co-author; a newspaper or magazine article, or teaching evaluations.

The transcripts, vita, statement of interest, recommendation letters, scholarly writing example, and supporting evidence should be mailed directly to:

On-Campus Graduate Coordinator
Department of Communication Studies
P.O. Box 6293
West Virginia University
Morgantown, WV 26506-6293

Master of Arts

Major Requirements

Minimum GPA of 3.0 required.

Minimum grade of B is required in all courses applied toward degree.		
Select an Area of Emphasis		36
Total Hours		**36**

COMMUNICATION THEORY & RESEARCH AREA OF EMPHASIS

Communication Studies coursework (400, 500, 600, 700-level)		24
COMM 700	Survey of Human Communication Theory	3
COMM 701	Graduate Research Methods	3
COMM 697	Research	6
Thesis		
Thesis Defense		
Total Hours		**36**

COMMUNICATION IN INSTRUCTION AREA OF EMPHASIS

Communication Studies coursework (400, 500, 600, 700-level)	36
Written Comprehensive Examination	
Oral Comprehensive Examination [*]	

[*]   The oral examination may be waived with the approval of the student's examination committee and the Departmental Coordinator of Graduate Studies.

CORPORATE & ORGANIZATIONAL COMMUNICATION AREA OF EMPHASIS

Communication Studies coursework (400, 500, 600, 700-level)	36
Written Comprehensive Examination	
Oral Comprehensive Examination [*]	

[*]   The oral examination may be waived with the approval of the student's examination committee and the Departmental Coordinator of Graduate Studies.

Doctor of Philosophy

MAJOR REQUIREMENTS

Minimum GPA of 3.25 is required.

Minimum grade of B is required in all courses applied toward degree.		[*]
Required Courses		
COMM 700	Survey of Human Communication Theory	3
COMM 701	Graduate Research Methods	3
COMM 790	Teaching Practicum	2
COMM 796	Graduate Seminar	1
Primary area courses		12
Secondary area courses		9

Research methods courses	9
Dissertation research	18
COMM 797 Research	
Dissertation Proposal	
Dissertation	
Dissertation Defense	
Total Hours	**57**

*   Students who receive more than six credit hours of Cs may not be permitted to remain in the program.

COMPREHENSIVE EXAMINATIONS/DISSERTATION

Upon admission to the program, students are advised by the Ph.D Graduate Studies coordinator. Working with the coordinator, students devise their schedule for their first year. During the second semester, in conjunction with the coordinator, students select an advisor. This advisor serves as the chair of each student's comprehensive examination and dissertation committees. Working with their advisor, students then select four other committee members, at least one of which, but no more than two, must be graduate faculty members external to the Department of Communication Studies.

Upon completion of the thirty-nine hours of coursework, students take a comprehensive examination. The comprehensive examination consists of three sections on which students will be tested on the primary and secondary areas of communication emphasis and research methods. The written examination will be followed by an oral examination approximately two weeks later.

Once the written and oral comprehensive examinations have been successfully defended (as determined by the committee), students write a dissertation proposal and submit the proposal to their committee. Once the proposal has been approved, students write and defend their dissertation. The dissertation defense is open to the public.

English

Degrees Offered

- Master of Arts
- Master of Arts in Professional Writing and Editing
- Master of Fine Arts
- Doctor of Philosophy

MASTER OF ARTS

The Master of Arts (M.A.) in English is a two-year program designed for students who have shown an aptitude for sustained literary study and who desire to pursue a more intensive and extensive academic training. The M.A. program has five primary goals: (1) to extend the student's knowledge of the cultural, linguistic, and literary heritage of Great Britain, America, and other English-speaking lands, (2) to introduce students to the critical and professional discourses of academics in literary and linguistic studies, (3) to develop the student's research, writing, and analytical skills, which are necessary for professional success, (4) to provide professional training to prepare students to teach English at the post-secondary level, and (5) to counsel students to craft their program of study to meet their professional and personal needs.

The M.A. program meets these goals by providing a rotation of courses in literature, linguistics, theory, and pedagogy that require extensive reading, writing, research, and oral presentations. With small classes, students receive individual attention from the faculty, which facilitates student progress. M.A. students are eligible for teaching assistantships within the English Department, which provides training in pedagogy.

The knowledge and skills that students acquire in the M.A. program provide the requisite foundation to pursue doctoral work in English, with the ultimate goal of becoming a professional scholar and academic at a post-secondary institution. The academic training provided by the M.A. also is applicable for careers in secondary education, professional writing, and editing.

MASTER OF ARTS IN PROFESSIONAL WRITING AND EDITING

The M.A. in Professional Writing and Editing is a thirty-hour degree that combines theories of writing with practice in real-world writing situations. Students will study professional writing theory, the history of rhetoric, editing, rhetorical analysis, new modes of digital composition, and writing ethics. This degree prepares students for a variety of career options, including technical writing and editing, project management, writing consulting, writing instruction, and advanced graduate study in rhetoric and composition. The degree is designed for both newly-graduated undergraduates and working adults who want more training in writing and editing.

MASTER OF FINE ARTS

The Master of Fine Arts in creative writing is a three-year academic/studio program that combines an apprenticeship to the craft with more traditionally academic elements. This approach seeks to train students in ways that reflect the realities of the writer/artist's evolving role in the academy. Because

ASSOCIATE PROFESSORS

- Sandy Baldwin - Ph.D. (New York University)
  Literature and Media Technology, 20th-century American Literature, Critical Theory
- Brian Ballentine - Ph.D. (Case Western Reserve University)
  Technical and Professional Writing, Digital Literacy
- Gwen Bergner - Ph.D. (Princeton University)
  African-American and Multi-ethnic Literatures, Post-colonial Studies
- Cari Carpenter - Ph.D. (University of Michigan)
  19th-century American Literature, Native American Literature
- Ryan Claycomb - Ph.D. (University of Maryland)
  20th-century British Literature, Drama
- Anna Shannon Elfenbein - Ph.D. (University of Nebraska)
  American Literature, Women's Studies, Film
- Lara Farina - Ph.D. (Fordham University)
  Medieval Literature and Culture, Gender Studies
- Marilyn Francus - Ph.D. (Columbia University)
  Restoration and 18th-century Literature and Culture, Women's Studies, Satire, History of the Novel
- Michael Germana - Ph.D. (University of Iowa)
  American Studies, 19th and 20th-century American Literature, Popular Culture
- Catherine Gouge - Ph.D. (West Virginia University)
  Professional Writing, New Media Studies, Distance Learning
- Rosemary Hathaway - Ph.D. (Ohio State University)
  Folklore, English Education, 20th-century American Literature
- Ellesa High - Ph.D. (Ohio University)
  American Indian literature, Creative Writing: Fiction and Nonfiction, Appalachian Studies
- Adam Komisaruk - Ph.D. (University of California, Los Angeles)
  Romanticism and 18th-century British Literature
- John Lamb - Ph.D. (New York University)
  Assistant Editor of Victorian Poetry, Victorian Literature and Culture, Victorian Historiography
- Kathleen O'Hearn Ryan - Ph.D. (University of Massachusetts-Amherst)
  20th-century American Literature
- Nathalie Singh-Corcoran - Ph.D. (University of Arizona)
  Writing Center Theory and Practice, Writing Assessment
- Ethel Morgan Smith - M.A. (Hollins College)
  Creative Writing: Fiction and Nonfiction Essay; African-American Literature
- Lisa Weihman - Ph.D. (New York University)
  19th and 20th-century British and Irish Literature and Culture

ASSISTANT PROFESSORS

- Piers Brown - Ph.D. (University of Toronto)
  Early Modern British Studies, Poetics, History of the Book
- Lowell Duckert - Ph.D. (George Washington University)
  Early Modern British Studies, Literature and Environment
- John Jones - Ph.D. (University of Texas)
  Composition and Rhetoric, Digital Literacy
- Sarah Neville - Ph.D. (University of New Brunswick)
  Early Modern British Studies, History of the Book
- Tom Sura - Ph.D. (Purdue University)
  Composition and Rhetoric, Writing Program Administration
- Glenn Taylor - M.F.A. (Texas State University)
  Creative Writing: Fiction

PROFESSORS EMERITI

- Timothy Dow Adams
- Gail Galloway Adams
- Patrick Conner - Ph.D. (University of Maryland)

Admissions

MA IN ENGLISH

To be admitted to the Department of English as prospective candidates for the degree of master of arts, students are expected to have completed work comparable to the department's undergraduate requirement for English majors (but with records distinctly above the average), and to present as part of their applications their scores on the verbal and analytic sections of the Graduate Record Examination General Aptitude Test and, if non-native speakers of English, their TOEFL scores. Past experience has shown that successful graduate students usually score at least the sixtieth percentile on the verbal section of the GRE. Students also must provide three letters of reference and a sample of their academic writing.

PROFESSIONAL WRITING AND EDITING

Prospective candidates for admission are expected to have completed an undergraduate degree in English or an allied field with a record distinctly above average or to have at least two years' work experience in writing and editing. Applications must be supported by a portfolio of written work and three letters of recommendation. The GRE analytical writing test, taken within the last five years, is recommended; successful candidates will typically present a score of five or above. The program recognizes, however, that not all potentially excellent graduate students fit this profile and welcomes applications from individuals who can make a strong case that they will succeed. Non-native English speakers must present TOEFL scores of at least 600 for the written exam or equivalent scores for the online version.

CREATIVE WRITING

Prospective candidates for the degree of master of fine arts are normally expected to have completed a bachelor's degree in English. Admission to the program is based primarily on the excellence of a substantial writing sample in fiction, nonfiction, or poetry (ten to twenty pages of poetry; twenty to thirty pages of prose). Also required are Graduate Record Examination scores, three letters of recommendation, and a personal statement. Non-native speakers of English must present TOEFL scores. Past experience has shown that successful graduate students usually score above the sixtieth percentile on the verbal section of the GRE.

PHD IN ENGLISH

Applicants for admission to the program will be judged on the bases of academic record, three recommendations from former teachers, a statement of purpose outlining their academic and professional goals, a sample of their academic writing, and Graduate Record Examination General Aptitude Test scores. Non-native speakers of English must also present their TOEFL scores.

Master of Arts

MAJOR REQUIREMENTS

ENGL 609	College Composition Pedagogy [*]	3
ENGL 680	Introduction to Literary Research	3
or ENGL 682	Recent Literary Criticism	
American Literature:		3
ENGL 646	American Literature to 1865	
ENGL 647	American Literature, 1865-1915	
ENGL 648	American Literature, 1915-Present	
ENGL 741	Seminar in American Studies	
British Literature:		3
ENGL 623	Old English 1	
ENGL 624	Old English 2	
ENGL 661	Medieval Literature	
ENGL 663	Shakespeare	
ENGL 664	Renaissance Literature	
ENGL 666	Restoration and Eighteenth-Century Literature	
ENGL 668	Romantic Literature	
ENGL 669	Victorian Literature	
ENGL 671	Twentieth-Century British Literature	
ENGL 761	Seminar in Medieval Studies	
ENGL 764	Seminar in Renaissance Studies, 1550-1660	
ENGL 766	Seminar in Restoration and Eighteenth-Century Studies	
ENGL 768	Seminar in British Romanticism	
ENGL 769	Seminar in Victorian Studies	
ENGL 771	Seminar in Twentieth-Century British Studies	

Pre-1800 Literature:		3
ENGL 623	Old English 1	
ENGL 624	Old English 2	
ENGL 661	Medieval Literature	
ENGL 663	Shakespeare	
ENGL 664	Renaissance Literature	
ENGL 666	Restoration and Eighteenth-Century Literature	
ENGL 693	Special Topics	
ENGL 761	Seminar in Medieval Studies	
ENGL 764	Seminar in Renaissance Studies, 1550-1660	
ENGL 766	Seminar in Restoration and Eighteenth-Century Studies	
Post 1800 Literature:		3
ENGL 647	American Literature, 1865-1915	
ENGL 648	American Literature, 1915-Present	
ENGL 669	Victorian Literature	
ENGL 671	Twentieth-Century British Literature	
ENGL 769	Seminar in Victorian Studies	
ENGL 771	Seminar in Twentieth-Century British Studies	
Coursework or Thesis Option: **		6
600 or 700-level seminars		
ENGL 698	Thesis or Dissertation	
Seminar Requirement (700 level courses excluding ENGL 790)		6
Foreign Language Requirement		
Total Hours		**30**

*   Students who do not hold an assistantship will substitute three additional hours of electives.

**   A maximum of three hours of Independent Study (ENGL 695 or ENGL 795) may be counted toward the elective hours. Students may take 3 hours of coursework in another department, subject to the approval of the Graduate Program Committee.

Foreign Language Requirement

The foreign language requirement for the M.A. is satisfied by successfully completing (receiving an A or B in the last course) a second-year level of foreign language study at an accredited college or university (or its international equivalent) within the last five years or by passing (with a B or better) the examination administered by the Department of Foreign Languages for "credit by exam" for the fourth semester course of a language sequence. Exams are available in French, German, Spanish, or Latin.

Master of Arts in Professional Writing and Editing
MAJOR REQUIREMENTS

ENGL 601	Studies in Composition and Rhetoric	3
ENGL 602	Editing	3
ENGL 605	Professional Writing Theory	3
ENGL 609	College Composition Pedagogy *	3
Internship or Thesis Option:		3-6
ENGL 610	Professional Writing Internship	
ENGL 698	Thesis or Dissertation	
Professional Writing and Editing 600-level electives		6
General Distribution English coursework		9
Language Requirement		
Total Hours		**30-33**

*   Students who do not hold an assistantship will substitute three additional hours of electives.

Professional Writing and Editing Electives

In consultation with the advisor, students will individualize their plan of study by choosing two 600-level courses that develop a specific focus within the general field of professional writing and editing. Students must work with an advisor to file an approved plan of study by the end of their first semester of study.

General Distribution

Students must complete nine–twelve hours of general English studies. Courses will include literature, writing, and/or linguistics courses offered by the Department of English and chosen in consultation with the advisor. General distribution hours may often include requirements dictated by graduate teaching status, prior coursework, and departmental guidelines. Students may not use the same course(s) to fulfill the general distribution and professional writing electives requirements.

Practical Experience

Students must choose one of the following two summative experiences: ENGL 610 (three hours) or ENGL 698 (six hours). The directed study option is a workplace internship.

Language Requirement

The M.A. in PWE requires that students demonstrate proficiency in foreign language, statistics, or computer programming in one of following ways:

- Completing a 204 (Intermediate II) or 200 (Intensive Intermediate) language course in a modern foreign language with a grade of B or above or completion of the Graduate Student Foreign Language Exam administered by the Department of World Languages, Literatures, and Linguistics
- Earning a B or above in the second-year level of foreign language study at an accredited college or university (or its international equivalent) within the last five years
- Participating in a University-approved study abroad program of four or more weeks in a non-English-speaking host country will also fulfill the language requirement if, as part of the experience, students are required to study the language and culture of the host country. As part of the study abroad program, students must enroll in at least one three-credit-hour course and earn a grade of B or above.
- Completing STAT 201 Applied Statistical Modeling with a grade of B or above
- Completing CS 110 Introduction to Computer Science and its accompanying one credit hour lab with a grade of B or above

A student should state in the plan of study the means by which he or she plans to satisfy the language requirement.

Master of Fine Arts
MAJOR REQUIREMENTS

Minimum grade of B is required in all courses applied toward degree.

Creative Writing Workshops:		15
ENGL 618	Graduate Writing Workshop: Poetry	
ENGL 618A	Graduate Writing Workshop: Fiction	
ENGL 618B	Graduate Writing Workshop: Non-Fiction	
ENGL 609	College Composition Pedagogy	3
Non Creative Writing English Courses		12
Thesis		9
ENGL 698	Thesis or Dissertation	
Electives		6
Book-length Manuscript [*]		
Thesis Defense		
Total Hours		**45**

[*]   The student is required to submit a book-length manuscript (ideally 48 pages in poetry, 150 pages in fiction or nonfiction) suitable for publication on its own, that has been approved by a thesis advisor and two additional thesis committee members. Final approval is granted following an oral defense of the thesis.

Doctor of Philosophy

During the first year in residence, students must enroll in ENGL 799 and pass the preliminary qualifying examination.

MAJOR REQUIREMENTS

English Coursework [*]		18
ENGL 609	College Composition Pedagogy	
ENGL 680	Introduction to Literary Research	
ENGL 782	Current Directions in Literary Study	

6 hours of 700-level seminars		
Teaching Practicum [**]		
ENGL 790	Teaching Practicum	
Foreign Language Requirement		
Dissertation Credit		12
ENGL 798	Thesis or Dissertation	
Qualifying Examination		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**30**

[*]   Students may take up to twelve hours of coursework in another department, subject to the approval of the Graduate Program Committee.

[**]   Students are required to teach one 3-hour composition course and one three-hour literature course while in residence and to register concurrently for ENGL 790; this requirement may be waived pending departmental approval for candidates who have substantial prior teaching experience. ENGL 790 does not count toward the 30 required hours of coursework.

FOREIGN LANGUAGE REQUIREMENT

The foreign language requirement is the same as for the M.A. program and must be completed prior to taking the examination for formal admission to candidacy.

DOCTORAL DISSERTATION

After completing coursework, passing the examination for formal admission to candidacy, and fulfilling the language and teaching requirements, the student, under the direction of the dissertation committee chairperson, writes a prospectus of the final project. The prospectus must be approved by the dissertation committee. The dissertation, meant to be an original contribution to scholarship in its field, should be able to be completed in one year. The final examination (oral defense of the dissertation) is open to the public.

Forensic and Investigative Science

Degrees Offered

- Master of Science

The Department of Forensic and Investigative Sciences offers graduate studies leading to a degree of Master of Science. The degree program is rigorous, quantitative, and science-based.

Coursework focuses on advanced science classes such as trace evidence, pattern evidence, DNA analysis, forensic chemistry, and laboratory management.

The degree is unique in that it shares aspects of a professional education degree, such as an MBA, while retaining a very strong research component.   Students are required to complete a minimum of 40 credit hours. The coursework is comprised of a core of advanced chemistry and biology courses and complemented with additional laboratory-based instruction in microscopy, analytical chemistry and impression evidence.

FACULTY

CHAIR

- Gerald Lang - Ph.D. (Rutgers Univeristy)

DIRECTOR

- Keith Morris - Ph.D. (University of Port Elizabeth)
  Ming Hsieh Distinguished Professor, Impression Evidence, Evidence Interpretation

ASSOCIATE PROFESSORS

- Suzanne Bell - Ph.D. (New Mexico State University)
  Forensic Chemistry
- Glen Jackson - Ph.D. (West Virginia University)
  Ming Hsieh Distinguished Professor, Forensic Chemistry

ASSISTANT PROFESSOR

- Jacqueline Speir - Ph.D. (Rochester Institute of Technology)

Forensic Informatics

TEACHING ASSISTANT PROFESSOR

- Tina Moroose - M.S. (Marshall University)
  Graduate Studies Coordinator, Forensic Biology

TEACHING INSTRUCTOR

- Rachel Mohr - Ph.D. (Texas A&M University)
  Forensic Entomology
- Casper Venter - M.S. (North West University)
  Forensic Drug Chemistry

Admission Requirements

Applicants must have a bachelor's degree in natural science, forensic science, or equivalent which includes at least one year of the following courses:

- Fundamentals of Chemistry (inclusive of laboratories)
- Organic Chemistry (inclusive of laboratories)
- Biology (inclusive of laboratories)
- Physics (inclusive of laboratories)
- Calculus
- GRE taken with in the last five years with a score of 300 or better.
- GPA of 3.0 or better on a 4.0 scale
- Writing sample in a peer reviewed publication where the applicant was the lead author (of at most 3 authors) OR 5 page essay
- Two letters of recommendation.

Upon receipt and evaluation of application package, suitable candidates will be invited for a final interview with the graduate committee.

Applications will be accepted throughout the year.

Master of Science

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Minimum grade of C is required for all courses applied toward degree.		
FIS 501	Foundations of Criminalistics	3
FIS 502	Forensic Laboratory Management	3
FIS 602	Forensic Informatics	3
FIS 614	Trace Evidence Examination	3
FIS 620	Forensic Casework Practicum	3
FIS 632	Advanced Forensic Biology	3
FIS 660	Advanced Forensic Chemistry	3
FIS 696	Graduate Seminar	1
FIS 696	Graduate Seminar	1
FIS 696	Graduate Seminar	1
FIS 696	Graduate Seminar	1
FIS 697	Research	6
STAT 516	Forensic Statistics	3
Approved Elective Courses [*]		6
Thesis Proposal		
Thesis Defense		
Total Hours		**40**

[*]   Approved Electives can include any 400 level Biology, Chemistry, or Forensic and Investigative Science course as well as FIS 604, FIS 610, FIS 615 or any 700 level Pharmacy course.

Academic Standards

During graduate study, a minimum grade point average of 3.0 must be maintained in all required courses. A student who fails to maintain the required average at the completion of any semester will be placed on probationary status and allowed one academic year (two semesters) to attain the required average.   If unsuccessful, the student will be dismissed from the graduate program. Students must earn a C or better in all required courses and a student can attempt (enroll) in an FIS graduate course a maximum of two times. Please note that this maximum applies to student enrollment at the end of a respective semester's registration deadline. In other words, if a student drops a course after the first week of school the dropped course still accrues an attempt. Any student that enrolls in a required FIS course twice, and earns less than a C in the best attempt will be dismissed from the program.

Thesis Research

All students should identify a faculty mentor and research topic as soon as possible. In order to register for FIS 697 Research, the student must have successfully completed his or her thesis proposal defense. A student cannot register for research hours until the proposal has been successfully defended and a **Plan of Study Form** is completed and signed by all committee members. The **Plan of Study** form must be submitted to the Graduate Studies Coordinator within 24 hours after the proposal defense.

Each student is responsible to ensure that, with the assistance of the Graduate Studies Coordinator, his or her committee is correctly constituted.   Upon successful completion of the research, the candidate will present his or her results in a thesis and at the appropriate time defend the work in a final oral examination according to the rules of the College and University.

Geography

Degrees Offered

- Master of Arts
- Doctor of Philosophy

Nature of the Program

The graduate program in geography at West Virginia University provides students with the opportunity to study for a master of arts or a doctor of philosophy degree with an area of emphasis in one or more of the following fields:

- Geographic information science
- Environmental geography
- Human geography

The M.A. is designed so that full-time students should satisfy all program requirements within two years. Students are expected to be well-grounded in one or more of the program's three areas of specialization (environmental geography, geographic information science, and space, place, and development). The M.A. degree program in geography was designated a program of excellence by the West Virginia University Board of Governors in 1998, 2003, and 2008. This award is given to superlative degree programs in recognition of their contribution to higher education in West Virginia and national recognition.

Research

Students who are interested in pursuing research in an area other than these may do so provided the research area matches the interest of a faculty member in the department who agrees to supervise the student's program. Students who wish to focus their research on a particular region are encouraged to do so. The Graduate Program in Geography at WVU has strong links with the University's Regional Research Institute, the State GIS Technical Center, the Geology Program, the Water Research Institute, the International Studies Program, the West Virginia Geological and Economic Survey, the Center for Women's Studies, and the Center for Black Culture and Research.

Computing Facilities

The geography program has extensive computing facilities housed in a new 98,000 square foot building dedicated exclusively to geography and geology. The new building has five computer laboratories dedicated to teaching and research. The department has ESRI ArcGIS, ERDAS Imagine, and ENVI site licenses. In addition, the department supports SAS, SAS-Graph, JMP, Surface III, Oracle, and extensive database and statistical packages. The department's geovisualization research group operates an immersive four-wall 3-D display environment or CAVE. The remote sensing program operates an ASD full-range portable spectroradio meter.

FACULTY

CHAIR

- J. Steven Kite - Ph.D. (University of Wisconsin)

ASSOCIATE CHAIR FOR GEOGRAPHY

- Amy Hessl - Ph.D. (University of Arizona)

PROFESSORS

- Gregory A. Elmes - Ph.D. (Pennyslavania State University)
  GISc, Spatial Modeling, Crime Mapping
- Trevor M. Harris - Ph.D. (University of Hull)
  Eberly Professor, GISc, Virtual Reality and GIS, Participatory GIS, Spatial Humanities
- Randall Jackson - Ph.D. (University of Illinois)
  Director of Regional Research Institute, Regional Economic Geography, Regional Economic Health and Performance, Regional Science
- Ann M. Oberhauser - Ph.D. (Clark University)
  Director of Women's Studies, Economic Geography, Regional Development, Gender Geography, Political Economy, Appalachia
- Timothy A. Warner - Ph.D. (Purdue University)
  Remote Sensing

PROFESSOR EMERITUS

- Kenneth C. Martis - Ph.D. (University of Michigan)
  Political and Electoral Geography, Historical Geography

ASSOCIATE PROFESSORS

- Amy Hessl - Ph.D. (University of Arizona)
  Biogeography, Forest Ecosystems
- J. Steven Kite - Ph.D. (University of Wisconsin-Madison)
  Geomorphology, Quaternary Studies, Geoarchaeology
- Brent McCusker - Ph.D. (Michigan State University)
  Uneven Development, Political Ecology, Africa

ASSOCIATE PROFESSOR EMERITUS

- Robert Q. Hanham - Ph.D. (Ohio State University)
  Political Economy of Uneven Development, Labor Geography

ASSISTANT PROFESSORS

- Jamison Conley - Ph.D. (Pennyslavania State University)
  GISc, Geocomputation, Medical Geography
- Karen Culcasi - Ph.D. (Syracuse University)
  Geopolitics, Identity, Middle East, Cartography
- Eungul Lee - Ph.D. (University of Colorado)
  Climatology, Vegetation-atmosphere Interactions, Asian Monsoon
- Brenden McNeil - Ph.D. (Syracuse University)
  GIS, Remote Sensing, Ecosystem Ecology
- Jeremia Njeru - Ph.D. (University of Wisconsin-Milwaukee)
  Urban Development and Environmental Change, Urban Political Ecology
- Bradley Wilson - Ph.D. (Rutgers University)
  Social Movements, Globalization, Environmental Justice, Latin America

CLINICAL ASSISTANT PROFESSOR

- Rick Landenberger - PhD. (West Virginia University)
  Remote Sensing, Ecology, Educational Outreach

POST DOCTORAL RESEARCHERS

- Jonathan Hall - Ph.D. (Ohio State University)
  Ecology, Biogeography
- Maria Alejandra Perez - Ph.D. (University of Michigan)
  Human Geography, Science and Society

Admission/Application Requirements

Master of arts applicants must submit GRE scores, a personal two-page statement defining the applicant's interest in geography and career intentions, and two letters of recommendation from people who are familiar with the student's undergraduate training. Ph.D. applicants should send three letters

of recommendation, GRE scores, and a personal two-page statement defining the applicant's interest in geography and career intentions. This material should be forwarded directly to:

Coordinator of the Geography Graduate Program
West Virginia University 330 Brooks Hall
P.O. Box 6300
Morgantown, WV 26506

Priority will be given to applications for fall admission and teaching assistantships received by January 15. To apply for fall admission without financial assistance, application material should preferably be received by April 1.

International students should submit their materials at least three months in advance of all deadlines. Prospective students must have an overall undergraduate GPA of 3.0 and a 3.0 GPA for undergraduate geography courses. Prospective doctoral students should have a cumulative GPA of at least 3.3. Students with degrees in other disciplines are encouraged to apply although they may be asked to make up deficiencies in geography during the first year in the program.

Prospective doctor of philosophy students must have a master's degree. Students with degrees in other disciplines are encouraged to apply, but they may be asked to make up deficiencies in geography during their first year in the program. Incoming geography students may also be asked to make up deficiencies if any are found during the student's entry interview with faculty. This interview is immediately prior to the first semester of the program. Students are expected to be well-grounded both in one of the program's areas of emphases and in the history and philosophy of geography.

Research Assistantships

Research assistantships must be applied for through the faculty member whose research is providing the funding. The geography faculty are engaged in numerous funded research projects, many of which provide graduate students with opportunities for obtaining research skills and experience as well as employment and tuition aid. Furthermore, the professional contacts made in the course of faculty research frequently provide graduate students with opportunities for career development.

Master of Arts

MAJOR REQUIREMENTS

GEOG 601	Geographic Traditions	3
Methods Course:		3
GEOG 594	Seminar	
GEOG 603	Qualitative Research in Geography	
GEOG 701	Advanced Research Methods	
Colloquium:		4
GEOG 600	Geography Research Colloquium (repeated)	
Geography Courses		9
Professional Master's or Thesis Option:		3-6
GEOG 780	Non-Thesis Project (plus an additional 3 hours of electives)	
GEOG 797	Research (thesis students)	
Thesis Proposal		
Thesis Defense		
Electives		8
Total Hours		**30-33**

Doctor of Philosophy

A limited number of the required courses may be waived if the student has already completed an equivalent course and can demonstrate proficiency with the material.

MAJOR REQUIREMENTS

GEOG 601	Geographic Traditions	3
Methods Course:		3
GEOG 603	Qualitative Research in Geography	
GEOG 701	Advanced Research Methods	
Geography Courses		6
Methods Electives:		6

GEOG 407	Environmental Field Geography	
GEOG 452	Geographic Information Science: Applications	
GEOG 453	Geographic Information Science: Design and Implementation	
GEOG 485	Methods of Geographic Research	
GEOG 550	Geographic Information Science	
GEOG 603	Qualitative Research in Geography	
GEOG 630	Seminar: Land Use and Cover Change	
GEOG 651	Geographic Information Science: Technical Issues	
GEOG 655	Remote Sensing Principles	
GEOG 701	Advanced Research Methods	
GEOG 753	Exploratory Spatial Data Analysis	
Seminar Course:		3
GEOG 607	Geography of Fire	
GEOG 612	Gender, Society and Space	
GEOG 615	Development Geography	
GEOG 621	Advanced Fluvial Geomorphology	
GEOG 694: Seminar		
GEOG 753	Exploratory Spatial Data Analysis	
Colloquium:		4
GEOG 600	Geography Research Colloquium (repeated)	
Electives		11
Comprehensive Examinations		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**36**

EXAMINATIONS AND DISSERTATION

The student is required to pass an oral and three written comprehensive examinations no later than the fourth semester. The student will be examined on two areas of specialization and the student's dissertation research topic. Upon successful completion of the comprehensive examination and no later than the end of the fifth semester, the student will be expected to defend a dissertation research proposal. The award of the Ph.D. is granted upon the successful defense of the dissertation itself.

The First Year for all M.A. Students

Each incoming student is interviewed before the fall semester to identify the student's interests and any academic deficiencies that require remedial work before graduate studies continue. All students are initially supervised by the Graduate Committee.

Once the student develops a more clearly defined research interest, no later than the middle of the spring semester, the student should request a faculty member to be their advisor. The student should discuss with the advisor whether to pursue the thesis or professional master's option. The student and the advisor together select an advisory committee. A minimum of two of the three committee members (including the advisor) must be geography faculty members at WVU. Students may change advisor or committee members after consultation with the advisor and the Graduate Committee. The progress of every student is reviewed toward the end of the spring semester. In cases where a student is performing significantly below expectations, the student may be required to leave the program.

The M.A. Thesis Option

The M.A. thesis is an independent research project undertaken by the student. The thesis research should adhere to the following:

- Demonstrate knowledge of the literature in the student's chosen field
- Use data and methods appropriate to the research
- Draw conclusions from the research endeavor

M.A. thesis option students develop a thesis proposal toward the end of the first year and during the first summer. The first step is to develop a written thesis proposal. This must be completed to the satisfaction of the student's advisor and thesis committee no later than October 1 of the student's second year. This is followed by an oral presentation to all students and faculty in the geography program no later than October 31 (unless there are scheduling conflicts). Presentations must be advertised within the department. Students should aim to complete the thesis proposal process well before the October

deadline in order to ensure progress towards graduation the following semester. Students not able to meet this schedule should seek a meeting with their advisor to resolve the issue prior to the deadline dates.

The defense of the thesis takes place when the advisor and the committee agree that a defendable copy of the thesis is complete. The defense date must be advertised at least two weeks in advance. Only in exceptional circumstances will the thesis committee waive the two-week requirement for advertising thesis proposals and defenses. The thesis examination is graded on a pass/provisional pass/fail basis. To pass the examination, there can be no more than one unsatisfactory grade from the committee members. A student who fails may submit another thesis or a revised version upon the approval of the student's committee. No student may be re-examined more than once. A student who is given a provisional pass will generally be required to make minor revisions or corrections to the thesis.

Thesis proposals and defenses are not normally scheduled between June 15 and August 15.

The Professional Master's Option

Overview
The professional master's option consists of an additional graduate course and a three-credit-hour project (GEOG 780). The professional master's option is designed for students interested in a more focused project than the traditional research thesis option. It is not recommended for students considering entering a Ph.D. program. The thesis project has strict deadlines and must be completed in one semester and after the completion of GEOG 601 and either GEOG 603 or GEOG 701.

Deadlines and Timetable

Students planning on selecting the professional masters' option must make a written request to the Geography Graduate Committee no later than two weeks before the start of the semester in which the project is undertaken. The request should be endorsed by the student's advisor. Only after the written request has been received will the geography graduate director issue a permit for the course. It is strongly recommended that the project topic be selected prior to the beginning of the semester.

A written project plan is to be submitted to the advisor and committee no later than three weeks after the start of the semester. The project plan includes an objective, methods, and timetable. No public presentation of the proposal is required.

The student is required to have meetings with the advisor and the committee in weeks seven and eleven to present progress reports.

The project must be completed and successfully defended by the end of the semester in which the project was undertaken. If the student completes the project, passes the defense, and submits the project to the library by the end of the semester, the student will be given a grade of S (satisfactory) for the project (GEOG 780).

If the student completes and defends the project, but is unable to submit the project to the library by the university deadline, the student will be assigned an (I) incomplete for the project. The student then has up to two weeks after the last day of exam week to submit the project to the library; otherwise, the I is converted to a U (unsatisfactory).

If the student completes the project and fails the defense or if the project is not completed and defended by the end of the semester, the student will be given a grade of U for the GEOG 780 course.

Students who receive a grade of U may reapply to do a different project the following semester. Students cannot reapply more than once.

The Graduate Committee may grant an extension to the one semester deadline under exceptional circumstances.

Project Topic and Defense

The choice of a project topic is to be determined by close interaction and agreement between the student, advisor, and committee. The project may comprise a wide range of activities, but is usually either (a) an applied problem-solving exercise with minimal literature review, (b) an empirical test of an idea from the literature with minimal literature review, or (c) a literature review or development of a conceptual idea using the literature.

The project is defended in a public presentation at the end of the project semester, but no later than the university deadline for a thesis defense. The defense time and location must be published in the department no less than two weeks in advance. The standard for passing will be that the majority of the advisory committee (two or more of the three members) evaluate the work as substantially meeting the goals identified in the written research plan.

Most projects are expected to be in written form (fifteen to twenty pages). Other forms of presentation may be acceptable such as maps, software, video, land-use plan, image classification, field-trip guide, work of art, etc.; however, a written document explaining the project is still required.

Assistantships

The Geography Graduate Program has a number of teaching and research assistantships available each year, which are allocated to qualified students on a competitive basis. These awards include a full university tuition waiver. Teaching assistantships are awarded annually and for no more than four semesters for M.A. students and six semesters for Ph.D. students. Ph.D. teaching assistants who meet all comprehensive exam and dissertation proposal deadlines, have made excellent progress towards the completion of their dissertation research, and have applied for at least one external

research grant may request an additional year of funding. Assistantships are reconfirmed each year based on performance in the previous year with respect to both assistantship duties and academic progress. Additionally, meritorious tuition waivers are offered on a competitive basis to outstanding students who do not receive assistantships. Requests for teaching assistantships and tuition waivers should be sent directly to the Coordinator of Graduate Studies in Geography by January 1. International students should submit their materials at least three months in advance of this deadline.

Geology

Degrees Offered

- Master of Science
- Doctor of Philosophy

Nature of the Program

The graduate program in geology at WVU provides study opportunities in the following areas:

- Hydrogeology and environmental geology with strengths in flow and contaminant-transport modeling, mine reclamation, shallow geophysics, floods, and debris flows
- Basin analysis and sedimentary geology with strengths in seismic modeling, basin structures, deposystem analysis, sequence stratigraphy, biostratigraphy, paleoecology, diagenesis, and plate tectonics
- Energy geology and geophysics with strengths in the exploration and development of oil, gas, and coal; the computational analysis of hydrocarbon systems; and environmental impacts of fossil fuel usages

Research Linkages Around Morgantown

The WV Geological and Economic Survey (WVGES), located five miles from Morgantown, makes available laboratory equipment, fossil collections, cataloged drill cuttings and core, and subsurface logs from deep wells in the region. WVGES also offers students work and thesis opportunities in coal resources and petroleum geology. Several survey geologists are adjunct faculty.

The National Energy Technology Laboratory (NETL) of the U.S. Department of Energy laboratory located in Morgantown carries out and funds research on fossil-fuel resources and environmental problems. NETL projects support geology faculty and graduate-student research.

Extensive mining in the Appalachian region provides an excellent opportunity for students to study the environmental effects of coal extraction. The WVU geology faculty collaborates with the National Mine Land Reclamation Center (NMLRC) based on the WVU Evansdale campus. The NMLRC is the main center for coordination of acid-mine drainage research in the United States. WVU Geology has instrumented groundwater research sites in the region for both training and research.

The department houses the Statewide GIS Technical Center, the central source for GIS resources in West Virginia. The tech center is responsible for scanning and digitization of USGS, DLGs, DOQs, and a host of other data products. The center provides technical-support services for the development and operation of GIS in West Virginia. A limited number of RA opportunities are available related to center activities.

Facilities

COMPUTER FACILITIES AND NETWORK

Research and teaching computing facilities in the department are outstanding and are centered around a Windows client-server network. The research cluster has access to more than ten terabytes of redundant networked storage based on a series of RAID servers as well as diverse networked printers, large-format plotters, large-format digitizers, and scanners. The teaching cluster provides interactive computing resources for 125 students on networked computers. Classroom demonstration facilities are available in every teaching lab. The research cluster includes many workstations with dual-format displays. All resources are regularly upgraded with a replacement period of one to two years. Clusters for the GEO workgroup are linked to the WVGIS center and have gateway access to the university backbone. The entire building is networked. The department houses the GeoVirtual Lab which is centered around a four-walled immersive CAVE environment.

SOFTWARE RESOURCES

The department maintains software for instructional and research usage. A full range of common applications software is available on all network machines. In addition, statistical packages allow students to undertake detailed statistical analysis, whereas graphical analysis packages (TruFlite, Surfer, Geographix, RockWorks) enable users to render both 2-D and 3-D surfaces. GIS licenses include ARCGIS which is accessible to students for integration of complex geological and geophysical data. ERDAS IMAGINE provides a suite of image-processing tools for analyzing remotely sensed data. Dynamic Graphics EarthVision provides an interactive 3-D visualization environment. AutoCAD, Adobe Illustrator, and other graphics design packages allow accurate rendering of technical diagrams.

State-of-the-art geological and geophysical modeling and processing software are available for instructional and research use. Landmark Inc. GeoGraphix Discovery Suite, Seismic Micro Technology's Kingdom Suite, and Sclumberger's Petral software provide state-of-the-art tools for analysis of seismic reflection data and geophysical logs. Seismic processing capability is provided through Landmark's ProMax 2-D, 3-D, and VSP. We use

Sensors and Software's EKKO View Deluxe software for processing and display of ground penetrating radar data. Interpex's IXID software is available for forward and inverse modeling of resistivity and terrain conductivity data. Northwest Geophysical Associates' GM-SYS software is used in the forward and inverse modeling of gravity and magnetic data. A host of Landmark products including Discovery Suite, Seisworks, Strat-works, and seismic modeling packages enhance geophysical and subsurface studies. We have recently improved our capability in integrated subsurface analysis through the addition of IHS Petra, Schlumberger's Interactive Petrophysics for reservoir property analysis, and Petrel. The focus of these products is on collaborative work-flows that unite geophysics, geology, and reservoir engineering domains.

Software for groundwater simulation includes aquifer characterization packages (AQTESOLV), finite-difference flow and particle-tracking codes (MODFLOW2000, MODPATH3), solute-transport codes (MT3-D, MODFLOWT), and preprocessors (Groundwater Vistas). Streamflow-modeling capabilities include HEC-2 step-backwater and peak value flood frequency software.

For structural geology studies we use 2-D and 3-D move (Midland Valley) and TriShear (created by R. Almendinger) in addition to standard structural analysis software. Basin modeling and evaluation of the generation of hydrocarbons are carried out with the GENEX (Baisip-Franlab) software.

Laboratory And Field Instrumentation
GEOLOGICAL
The department has a rock-crushing room equipped with jaw crusher and disk grinder as well as laboratories devoted to geological sample preparation which include standard mineral separation equipment (Frantz magnetic separator, Gemeni table, and heavy liquids set-up).

GEOPHYSICAL
The department owns a Geonics very low frequency sensor, an EM34 terrain conductivity meter, a Bison Instruments 12 Channel Seismograph, and a Geometrics magnetometer. The geophysics facility also offers large format plotting on twenty-four to forty-two inch HP plotters. Additional survey equipment includes a Leitz Model 2100 Total Station Survey System and a two-station GPS Traveler. Wide spectrums of software resources (see above) enhance geophysical research.

GEOCHEMICAL
Department laboratories own a Philips PW1800 X-ray diffraction unit for solid-state mineral analyses and a Philips PW9550 energy dispersion spectrometer for elemental analyses. A complete suite of equipment is available for the analysis of organic-rich materials including a Leco sulfur analyzer, a Leco proximate analyzer for moisture, carbon, and ash content, a Leco CHN analyzer for coal and shale, a Leco calorimeter, and a Biorad FTIR with microscope attachment to do FTIR analysis of microscopic entities in rocks. Water analytical facilities include a Dionex 100 Ion Chromatograph and a Beckmen Autotitrator. Outside White Hall, Varian sequential ICP and Finnemat ICP-MS units for water analysis are available to geology faculty in the WV Water Research Institute.

HYDROGEOLOGICAL
Groundwater field equipment includes an array of Global Water vented pressure transducer/datalogger instruments, Grundfos 4" and Redi-Flo 2 pumps, Geotech peristaltic pumps and flow-through sampling cells, and analog well recorders as well as a variety of generators, sampling pumps, flumes, pH and conductivity meters, bailers, and current meters.

QUATERNARY GEOLOGY AND GEOMORPHOLOGY
Quaternary geology and geomorphology research is served by a particle-size analysis laboratory as well as field instrumentation such as Garmin and Trimble GPS units, laser levels, and a Leica TC400 electronic distance meter.

REMOTE SENSING
The Remote Sensing Laboratory has a comprehensive suite of computing and field equipment. The laboratory operates two portable full-range (0.4 to 2.5 micrometer) field spectroradiometers and an aerial small format photography system based on two Nikon cameras. The laboratory shares a digital ADAR infra-red aerial acquisition system with biology and resource management. The ADAR system can be deployed in both helicopters and fixed wing aircraft. Remote sensing software includes site licenses for ERDAS Imagine, ENVI/IDL, and ARC/INFO image analysis and GIS software.

FACULTY
CHAIR
- J. Steven Kite - Ph.D. (University of Wisconsin)
ASSOCIATE CHAIR FOR GEOLOGY
- Helen M. Lang - Ph.D. (University of Oregon)
PROFESSORS
- Robert E. Behling - Ph.D. (Ohio State University)
  Earth Science Education and Geomorphology

- Timothy Carr - Ph.D. (University of Wisconsin-Madison)
  Sedimentary and Petroleum Geology
- Joseph J. Donovan - Ph.D. (Pennyslavania State University)
  Hydrogeology, Quatrenary Paleochemistry
- Gregory A. Elmes - Ph.D. (Pennyslavania State University)
  Geographic Information Science
- Trevor M. Harris - Ph.D. (University of Hull)
  Eberly Professor, Geographic Information Science
- Thomas W. Kammer - Ph.D. (Indiana University)
  Centennial Professor, Paleontology and Paleoecology
- Henry W. Rauch - Ph.D. (Pennyslavania State University)
  Hydrogeology, Geochemistry, Carbon Sequestration
- John J. Renton - Ph.D. (West Virginia University)
  Geochemistry, Earth Science Education
- Timothy A. Warner - Ph.D. (Purdue University)
  Remote Sensing
- Thomas Wilson - Ph.D. (West Virginia University)
  Geophysics

PROFESSORS EMERITI

- Alan C. Donaldson - Ph.D. (Pennyslavania State University)
  Past Chair, Stratigraphy, Clastic Sedimentation
- Robert C. Shumaker - Ph.D. (Cornell University)
  Structural Geology, Tectonics
- Richard A. Smosna - Ph.D. (University of Illinois)
  Sedimentation, Stratigraphy, Carbonate Petrology

ASSOCIATE PROFESSORS

- Dengliang Gao - Ph.D. (Duke University)
  Geophysics
- Amy Hessl - Ph.D. (University of Arizona)
  Biogeography, Forest Ecosystems
- J. Steven Kite - Ph.D. (University of Wisconsin-Madison)
  Geomorphology, Quaternary Studies, Geoarchaeology
- Helen M. Lang - Ph.D. (University of Oregon)
  Mineralogy, Petrology
- Jaime Toro - Ph.D. (Stanford University)
  Structural Geology, Tectonics
- Dorothy J. Vesper - Ph.D. (Pennyslavania State University)
  Aqueous Geochemistry and Hydrogeology

ASSISTANT PROFESSORS

- Joseph Lebold - Ph.D. (West Virginia University)
  Earth Science Education, Stratigraphy, Paleoecology
- Eungul Lee - Ph.D. (University of Colorado)
  Climate, Regional Climate Modeling
- Brenden McNeil - Ph.D. (Syracuse University)
  GIScience and Environmental Modeling
- Shikha Sharma - Ph.D. (University of Lucknow, India)
  Isotope Geochemistry
- Amy Weislogel - Ph.D. (Stanford University)
  Sedimentary Geology

CLINICAL ASSISTANT PROFESSOR

- Rick Landenberger - Ph.D. (West Virginia University)
  Remote Sensing, Geoscience Education

POST DOCTORAL RESEARCHER

- Maria Perez - Ph.D. (University of Michigan)
  Karst and Cavers, Science and Society

Admission Procedures and Prerequisites

Applicants for graduate studies in geology must have as a minimum requirement a bachelor's degree and an overall grade point average of at least 3.0. Acceptance by the Department of Geology and Geography is necessary before admission of any prospective student to the program. All candidates for a graduate degree in geology must submit scores in the general aptitude tests of the Graduate Record Examination. Applicants seeking admission and financial support for the fall semester should apply by February 1. For spring semester, apply by October 1. Write to the department for an application package or download it from the website (see above).

Students seeking admission to the master's program or the Ph.D. program must complete the equivalents of all allied science and mathematics courses required for the B.S. in geology at WVU, plus the following geology courses:

GEOL 101	Planet Earth	3
GEOL 102	Planet Earth Laboratory	1
GEOL 103	Earth Through Time	3
GEOL 104	Earth Through Time Laboratory	1
GEOL 284	Mineralogy	3
GEOL 285	Introductory Petrology	3
GEOL 311	Stratigraphy and Sedimentation	4
GEOL 341	Structural Geology	4
GEOL 404	Geology Field Camp	6

Similar courses from other universities or relevant experiences may be substituted if approved during admission review. A requirement may be waived by the committee if the student can demonstrate competence in that subject area.

GPA Requirements

During graduate study a minimum grade point average of 3.0 must be maintained in required formal courses in geology and cognate fields for the master's degree and 3.3 for the Ph.D. A student who fails to maintain the required average at the completion of any semester will be placed on probationary status and allowed one academic year (two semesters) to attain the required average. If this is unsuccessful, the student will be dropped from enrollment in the graduate program.

Master of Science

The M.S. in Geology offers two options: research and professional studies. Students are required to take courses specified by their advisory committee, with whom they meet at the beginning of each semester. Students must take approved graduate courses from at least five different faculty from any department in the university.

MAJOR REQUIREMENTS

Select an Area of Emphasis:		30-39
Professional Studies (39 credits)		
Research (30 credits)		
GEOL 699	Graduate Colloquium	2
Total Hours		**32-41**

RESEARCH AREA OF EMPHASIS

This has been the traditional option for the master of science in geology. Students considering continued studies (doctor of philosophy) or seeking employment in an area of geological research should choose this option. A minimum of twenty-four formal course hours, six research hours (GEOL 697), and two hours of GEOL 699 are required for graduation. A thesis based on original research under direction of a research committee is also required. With consent of the candidate's research committee, the field work need not be done while in residence at WVU.

Geology Courses [*]		24
GEOL 697	Research	6
Total Hours		**30**

*   Approved graduate courses in biology, chemistry, physics, computer science, mathematics, engineering, soil sciences, business, or law may be taken as outside courses by geology graduate students. Students are free to take as many courses as they choose outside the department as long as the coursework is approved by their advisory committee.

PROFESSIONAL STUDIES AREA OF EMPHASIS

This option is designed specifically for students seeking experience in preparing and presenting professional problems. Students choosing this option typically expect to seek professional employment in the profession using the master's as their terminal degree. A minimum of thirty-three formal course hours, six directed study research hours (GEOL 692), and two hours of GEOL 699 are required for graduation. The research hours are in lieu of a thesis and are designed to simulate the work of professional geologists as they seek solutions to open-ended problems within a limited time frame. Experience in presentation of problems and solutions are an integral part of the program. Research hours may be earned in conjunction with off-campus experiences by consent of the candidate's advisory committee.

Geology Courses [*]		33
GEOL 692	Directed Study	6
Total Hours		**39**

*   Approved graduate courses in biology, chemistry, physics, computer science, mathematics, engineering, soil sciences, business, or law may be taken as outside courses by geology graduate students. Students are free to take as many courses as they choose outside the department as long as the coursework is approved by their advisory committee.

Doctor of Philosophy

The candidate for the Ph.D. must complete a program of courses outlined by the candidate's doctoral research committee. A candidacy preliminary examination must be successfully completed within one year after enrollment. The proposal defense and oral examination must also be successfully completed. Participation in two GEOL 796 Graduate Seminars is required. No other formal course requirements exist; these are chosen by the student in conjunction with his or her research committee.

MAJOR REQUIREMENTS

Colloquium:		2
GEOL 699	Graduate Colloquium (repeated)	
Seminar:		2
GEOL 796	Graduate Seminar (repeated)	
Comprehensive Examination		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**4**

History

Degrees Offered

- Master of Arts
- Atlantis Dual Degree Master of Arts
- Doctor of Philosophy

Nature of the Program

The Department of History offers graduate courses in the history of the United States, Appalachia/regional, Europe, Africa, Asia, Latin America, world history, and public history. Courses are designed to prepare students in historiography, research methods, and interpretation. Students can select concentrations leading to preparation for careers in teaching and scholarship and as specialists for various branches of government, business, and public service. Students in the program are normally expected to pursue the degrees of master of arts or doctor of philosophy.

Atlantis Dual Degree Master of Arts

The department also participates, together with Collegium Civitas of Warsaw, Poland and the University of Tartu in Estonia, in a unique transatlantic multidisciplinary dual degree M.A. program in East-Central European area studies. Students from both sides of the Atlantic spend two academic semesters overseas and will complete relevant coursework at West Virginia University and one of the two European institutions. They also have the opportunity to acquire language training and gain valuable experience through professional internships.

Students will complete the equivalent of sixty U.S. credit hours: thirty hours in the history program at WVU, and thirty hours in the international relations program at Collegium Civitas or the Baltic studies program at the University of Tartu. Master's theses will be defended at one of the two European institutions and WVU. The dual degrees, in history from WVU and in international relations or Baltic studies from one of the two European institutions, are awarded once credit hour and degree requirements are met at all three institutions.

FACULTY

CHAIR

- Joseph Hodge - Ph.D. (Queen's University at Kingston)
  Modern Britain, British Empire, decolonization, international development, Africa

ASSOCIATE CHAIR

- Kate Staples - Ph.D. (University of Minnesota)
  Medieval, Women, England

PROFESSORS

- Katherine Aaslestad - Ph.D. (University of Illinois)
  Modern Europe, Germany
- Robert E. Blobaum - Ph.D. (University of Nebraska)
  Eberly Family Professor of History, Modern Central and Eastern Europe
- Elizabeth Fones-Wolf - Ph.D. (University of Massachusetts)
  20th-century U.S., Social and Economic
- Kenneth Fones-Wolf - Ph.D. (Temple University) Stuart and Joyce Robbins Distinguished Chair in History
  U.S. Labor, Appalachia, Immigration, Religion
- Jack Hammersmith - Ph.D. (University of Virginia)
  East Asia, Recent U.S., American Diplomatic
- Robert M. Maxon - Ph.D. (Syracuse University)
  Africa, East Africa, Colonial Kenya

ASSOCIATE PROFESSOR

- Joshua Arthurs - Ph.D. (University of Chicago)
  Modern Europe, Italy, Cultural
- Tyler Boulware - Ph.D. (University of South Carolina)
  Early U.S., Frontier, Native American
- Joseph Hodge - Ph.D. (Queen's University at Kingston)
  Modern Britain, British Empire,decolonization, international development, Africa
- Brian Luskey - Ph.D. (Emory University)
  19th-century U.S, Social and Cultural
- Jason Phillips - Ph.D. (Rice University)
  Civil War, Reconstruction, Southern History, 19th-century U.S.
- James Siekmeier - Ph.D. (Cornell University)
  U.S. Diplomatic, Latin America
- Kathryn Staples - Ph.D. (University of Minnesota)
  Medieval, Women, England
- Mark B. Tauger - Ph.D. (UCLA)
  20th-century Russia/USSR, World/Comparative, Historiography
- Matthew A. Vester - Ph.D. (University of California)
  Early Modern Europe, Italy

ASSISTANT PROFESSOR

- Melissa Bingmann - Ph.D. (Arizona State University)
  Public History, 20th-century U.S.
- Ari Bryen - Ph.D. (University of Chicago)
  Ancient Greece and Rome, Law
- Krystal Frazier - Ph.D. (Rutgers University)
  African American, Oral History
- Charles MacKay - Ph.D. (Florida State University)
  Modern Europe, French Revolution, Military

- Tamba E. M'bayo - Ph.D. (Michigan State University)
  West Africa, African Diaspora and Pan-Africanism
- Michele Stephens - Ph.D. (University of Oklahoma)
  Latin America, Indigenous Peoples of the Americas, Race and Gender
- Kimberly Welch - Ph.D. (University of Maryland)
  19th-century U.S., Women, Legal

LECTURERS

- Jenny Boulware - M.A. (University of South Carolina)
  U.S., Public History
- Carletta Bush - Ph.D. (WVU)
  West Virginia

EMERITI FACULTY

- William S. Arnett
  Associate Professor
- Barbara J. Howe
  Associate Professor
- Elizabeth K. Hudson
  Associate Professor
- Emory L. Kemp
  Professor
- Ronald L. Lewis
  Eberly Chair and Professor
- Stephen C. McCluskey
  Professor
- A. Michal McMahon
  Associate Professor
- John C. Super
  Professor

REGULAR M.A. ADMISSION

Students seeking admission to the regular master of arts program should have the equivalent of a bachelor's degree in history. Applicants lacking this degree may be required to make up deficiencies. Application requirements include transcripts (a minimum of a 3.0 average in history courses is expected), three letters of recommendation, a statement of purpose, writing sample, résumé, and a combined score of 300 on the verbal and quantitative sections and 4.0 on the written section of the Graduate Record Examination General Aptitude Test (GRE).

Students apply for admission to the public history area of emphasis as they would for the regular M.A. in history. The statement of purpose should highlight relevant background and reasons for interest in public history. Students in public history should have an undergraduate degree in history. Applicants lacking this degree may be required to make up deficiencies.

ATLANTIS DUAL DEGREE MASTER OF ARTS ADMISSION

Students apply for admission to the Atlantis program as they would for the regular M.A. in history. The statement of purpose should highlight relevant background and reasons for interest in the East-Central European region. Students should have an undergraduate degree in relevant disciplines and programs such as history, Slavic and East European studies, international studies, geography, and/or political science. Otherwise, they must meet the same criteria for admission as applicants to the regular M.A. program.

PH.D. ADMISSION

Students seeking admission to the doctor of philosophy program should have the equivalent of a M.A. in history. Application requirements include a transcript (a minimum of a 3.0 average in graduate history courses is required), three letters of recommendation, and a combined score of 300 on the verbal and quantitative sections and a 4.0 on the written section of the Graduate Record Examination General Aptitude Test (GRE). Students should also include a statement of purpose, an example of their written work, and a résumé as a part of the application.

Master of Arts

Individual faculty may require their students to master one or more languages to demonstrate proficiency in particular research methods (quantitative analysis, paleography, GIS, etc.) or to develop other skills as necessary for their areas of study and thesis projects.

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

HIST 799	Graduate Colloquium	
HIST 700	Historiography	3
Select an Area of Emphasis		12
Select a minor area		6
History elective		3
Select either the examination or thesis option:		6
Examination Option:		
HIST 795	Independent Study (Exam preparation)	
Additional readings seminar		
Examination		
Thesis Option:		
HIST 697	Research	
Thesis Proposal		
Thesis Defense		
Total Hours		**30**

THESIS OPTION

The M.A. in history (thesis or examination option) consists of thirty hours of coursework, of which no more than twelve hours may be at the 400 or 500-levels and the remainder at the 600 of higher level. Students who choose the thesis option must take one readings/research seminar sequence (HIST 701 and higher) as part of their thirty credit hours of coursework. They are also required to write a master's thesis in consultation with their main faculty advisor. The thesis must be based on original research that demonstrates a critical engagement with the secondary literature and is developed in multiple chapters. Students must first prepare a thesis prospectus, which must be approved by their thesis committee, before writing and successfully defending the thesis in an oral examination. A maximum of six hours of credit for HIST 697 can be taken for writing the thesis.

EXAMINATION OPTION

Students who choose this option must take one readings/research seminar sequence (HIST 701 and higher) plus an additional readings seminar (HIST 701 and higher) as part of their thirty credit hours of coursework. They cannot count thesis research credits as part of their thirty credit hours of coursework. In addition, in their final semester students must complete comprehensive exams in their major and minor fields, based on their coursework and in consultation with a faculty advisor for each field. The comprehensive exams include a written component and an oral defense. To prepare for the exam, students may take 3 hours of independent study (HIST 795) that count toward the required 30 hours.

PUBLIC HISTORY AREA OF EMPHASIS

Public historians are trained to conduct historical research and interpret the past for a variety of audiences. They generally work in museums, heritage sites, historic preservation, and archives as consultants and for the federal government. The M.A. in History with an area of emphasis in public history consists of thirty hours of coursework, of which no more than twelve hours may be at the 400 or 500-levels and the remainder at the 600 and higher level plus a six credit-hour internship (HIST 614).

HIST 614	Internship in Public History	6
HIST 750	Public History Methods	3
HIST 613	Local History Research Methodology	3
Readings/Research Seminar Sequence (HIST 701 or higher)		6
Electives		18
Total Hours		**36**

Doctor of Philosophy

Individual faculty advisers may require their students to master one or more languages, to demonstrate proficiency in particular research methods (quantitative analysis, paleography, GIS, etc.), or to develop other skills as necessary for their fields of study and dissertation projects.

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

HIST 700	Historiography	3
Reading/Research Seminars		12

HIST 799	Graduate Colloquium	4-6
Coursework in four fields of study (major field and three minor fields)		
Comprehensive Examination		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**19-21**

FIELDS OF STUDY

A candidate must offer a program of study in four fields (a major field and three minor fields). At least three fields must be in history while the other may be in a related field with the approval of the director of graduate studies. Doctoral students must maintain a 3.0 grade point average to remain in good standing. Fields available in the department include, but are not limited to Africa, Appalachia/regional, Europe, Latin America, and the United States. Students may also take a minor field in East Asia, public history, or world history. At least one field must be in a geographic area outside the student's main area of concentration for dissertation work. For each field of study, students take a comprehensive examination (written and oral) based on knowledge derived from course work and readings from a book list prepared in consultation with the faculty field adviser.

Dissertation work should normally be in the history of the United States, Europe, Appalachia/regional, or modern Africa. Students working in these areas, either at the M.A. or Ph.D. level, have the opportunity to study with adjunct professors and faculty from other departments and universities.

Cultural Resource Management Certificate

The Eberly College of Arts and Sciences also offers an interdisciplinary graduate-level fifteen-hour certificate in cultural resource management (CRM) that is coordinated by the Department of History. Most CRM students earn the graduate certificate in conjunction with an M.A. in history, public administration, recreation parks and tourism, geography, design, art history, or one of several other related graduate degree programs. The requirements for the CRM certificate consist of twelve credit hours of coursework and a three-hour internship or an individual research project (HIST 620). All CRM students must successfully complete HIST 600. Students who are currently admitted to or enrolled in a graduate degree program must register their intent to earn the CRM certificate with the CRM coordinator during the semester prior to their internship. Students who wish to pursue the graduate certificate independent of a graduate degree program must be admitted as non-degree graduate students prior to registering their intent to earn the CRM certificate. Each student is expected to maintain an average GPA of 3.0.

Minimum GPA of 3.0 is required.

HIST 600	Cultural Resource Management	3
HIST 620	Practicum in Cultural Resource Management	3
Graduate coursework		9
Total Hours		**15**

Legal Studies

Degree Offered

- Master of Legal Studies

Nature of the Program

West Virginia University's Master of Legal Studies (MLS) program is part of the Department of Public Administration. The MLS is a degree program designed to build greater public understanding of the law and the United States legal system, to provide graduates with the ability to apply knowledge and skills gained to performing their jobs more effectively and to provide private and public organizations the benefit of enhanced experience. It is a graduate program of study designed for professionals practicing in areas such as human relations, criminal justice, juvenile justice, journalism, social work, court administration, national security, probation and hm law enforcement, or regulatory agencies. It is neither a law degree nor a paralegal program.

The MLS is offered entirely online (there are no on-campus courses) and operates through a cohort model with a new class of students admitted each January and August. Courses are offered each term (including summers). Students following the prescribed course of study should be able to finish the degree in six terms (two calendar years, including summers). Students progressing at a different pace may take longer and have up to eight years to complete the degree.

Prospective and current students should frequently check the program's website at http://legalstudies.wvu.edu for up-to-date program information, forms, and other guidelines.

Degree Completion

According to university regulations, master's students are permitted to continue in a program for a maximum of eight years under their original application. A student is generally not allowed to count any courses taken more than eight years prior to the conferring of a degree toward completion of that degree. Graduate students are expected to maintain continuous enrollment, excluding summer sessions unless permitted by the director. All graduate students must enroll for at least one credit hour during the semester (or summer) of graduation. No course in which the grades D, P (pass), F, or U (unsatisfactory) are earned can be counted toward a graduate degree, nor can courses taken under the audit option. Students in the Master of Legal Studies program must earn a 3.0 GPA to qualify for graduation.

FACULTY
CHAIR
- John C. Kilwein - Ph.D. (Ohio State University)
  Department of Public Administration
DIRECTOR
- Nancy L. Adams - Ph.D. (Fielding Institute)
COORDINATOR
- Carla J. See - MA, MS (West Virginia University)

Admission

In order to be considered for admission to the MLS program, one must have completed a baccalaureate degree in any major with a cumulative GPA of at least 2.75 on a 4.0 scale. In addition, it is recommended that a prospective student have some work experience in an area broadly related to the field of legal studies. Applicants who do not possess a GPA of at least 2.75 may apply to the Eberly College of Arts and Sciences for admission as a non-degree student in order to register for certain classes and to document academic ability. Acceptance as a non-degree student does not guarantee acceptance into the legal studies program.

Steps to apply for the MLS program:

- Application for admission and transcripts: (Apply here: http://admissions.wvu.edu/admissions/how-to-apply)
- Three Letters of Recommendation: References should be requested through the online Graduate Application portal. Reference writers should be persons who are able to write directly to the applicant's ability to think critically; analyze situations, information, or data; to write clearly; and to apply one's self in an academic program of study. At least one letter should be from an academic reference, if possible.
- Current resume or curriculum vitae
- One to two page personal statement on the subject of why and how the Master of Legal Studies Program will further your career or special interests.
- Results from a standardized graduate-level test (i.e. GRE, LSAT, GMAT or MCAT) or a petition of wavier for the standardized test requirements. A form for the waiver request can be located on the Legal Studies Admissions webpage: http://publicadmin.wvu.edu/mls. A prospective student may apply for a waiver of the graduate test score requirement if he or she possesses an undergraduate degree and has five or more years of work experience in a field related to legal studies.

All application materials should be submitted no later than November 15 of each year for admission in the Spring semester and by May 1 for admission in the Fall semester. Applicants are encouraged to submit materials early. Early applications that are complete will be reviewed by the Admissions Committee on a rolling basis. Otherwise, the Admissions Committee will render decisions during the month of November for Spring admission and the month of June for Fall admission.

Additional information and forms may be found on the program's website at http://legalstudies.wvu.edu or by calling the program at (304) 293-7977.

Master of Legal Studies
MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Required Courses		
LEGS 610	Law and the Legal System	3
LEGS 620	Researching the Law	3
LEGS 630	Law and Society	3
LEGS 640	Administrative Legal Process	3
LEGS 650	The Legislative Process	3
LEGS 660	Alternative Dispute Resolution	3
LEGS 700	Research Capstone	3

Elective Courses		15
Select five from the following:		
LEGS 691	Advanced Topics	
LEGS 710	Family Law	
LEGS 720	Media and the Law	
LEGS 730	Employment Law	
LEGS 740	Commerce Law	
LEGS 750	Criminal Law and Procedure	
LEGS 760	Administrative Ethics	
LEGS 770	Healthcare Law	
LEGS 780	Constitutional Law	
Total Hours		**36**

Mathematics

Degrees Offered

- Master of Science
- Doctor of Philosophy

Programs

The Department of Mathematics offers graduate programs leading to the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees. The master's degree program offers specializations in pure mathematics, applied mathematics, and mathematics for secondary educators. The Ph.D. program provides for a common core of fundamental mathematics followed by specialized studies culminating in an original research dissertation directed by a faculty advisor. Depending on the student's program and interests, there are diverse career opportunities available in education, government, and industry.

Financial Support

Many graduate students receive financial support in the form of a graduate teaching assistantship, which provides a stipend and a full waiver of university tuition. These are awarded taking into account primarily the student's academic record along with the letters of recommendation and any supplementary information reflecting on the student's potential for success in the program. In some cases, teaching experience and/or the potential for outstanding teaching can be a consideration. Teaching assistants have the opportunity to work with the mathematics education faculty of the Department's Institute for Mathematics Learning (IML). A small number of research assistantships are also available.

Applications from students requesting financial aid should be received no later than February 15 to ensure full consideration for the subsequent fall semester. Late applications are accepted, but students are advised to check with the graduate director as to the availability of assistantships. Applications for admission (alone) can also be considered at other times, but for best consideration, particularly for the Ph.D. program, students should adhere to the February 15 deadline. Other financial aid includes partial university tuition waivers and part-time positions assisting in the instructional computer labs. TOEFL scores are required for international students whose native language is not English, with a university requirement of a 550 minimum score for admission.

Doctor of Philosophy

The doctor of philosophy is a research program in which the final product is an original, publishable research thesis. For students entering with regular admission status, the program requires a minimum of twenty-four hours of approved coursework along with research and graduate seminar requirements. As reflected in the interests and expertise of the faculty, students may specialize in a variety of areas of pure, applied, and discrete mathematics as well as research in undergraduate mathematics education.

EXAMINATIONS AND DISSERTATION

The student must pass a qualifying oral and written examination on the major and minor areas of study and present an approved dissertation prospectus. A minor examination is waived if the student has obtained at least a 3.5 GPA in the corresponding courses. If the qualifying examination results are unsatisfactory (U), the dissertation committee may reexamine the student once.

A Ph.D. candidate must complete a dissertation, representing at least twenty-four hours of 700-level research credit, under the supervision of a dissertation advisor. The research upon which the dissertation is based must conform to scholastic standards and constitute an original and publishable contribution to mathematics.

COMBINATORIAL COMPUTING AND DISCRETE MATHEMATICS (C.C.D.M.)

This is an option within the mathematics Ph.D. program, emphasizing interdisciplinary research at the intersection of computer science, statistics, and discrete mathematics. A minimum of thirty-three credit hours of coursework is required and includes designated core courses in discrete mathematics, statistics, and computer science. Students may undertake mathematics research of an interdisciplinary nature among these three areas.

LANGUAGE REQUIREMENT

Each Ph.D. student must demonstrate a reading knowledge of French, German, or Russian. The Graduate Programs Committee may approve the substitution of a different foreign language or a computer language for fulfillment of this requirement.

Further information may be obtained from the department's website at http://www.math.wvu.edu or by contacting the graduate director at gradprog@math.wvu.edu. Details on program requirements can be found in the Department's Graduate Handbook, available at http://www.math.wvu.edu/graduate_handbook.

FACULTY

CHAIR

- Edgar Fuller - Ph.D. (University of Georgia)

PROFESSORS

- Ian Christie - Ph.D. (University of Dundee)
  Numerical Partial Differential Equations
- Krzysztof Ciesielski
  Analysis, Topology, Set Theory
- Harvey Diamond - Ph.D. (MIT)
  Approximation Theory, Applied Mathematics
- Harry Gingold - D.Sc. (Israel Institute of Technology)
  Differential Equations, Asymptotic Methods
- John Goldwasser
  Combinatorics, Graph Theory
- Henry W. Gould - M.A. (University of Virginia)
  Emeritus, Combinatorics, Number Theory, Special Functions
- Harumi Hattori - Ph.D. (Rensselaer Polytechnic Institute)
  Differential Equations, Continuum Mechanics
- Hong-Jian Lai
  Associate Chair, Graph Theory, Matroid Theory
- Dening Li
  Partial Differential Equations
- Laura Pyzdrowski - Ed.D. (West Virginia University)
  Mathematics Education, Instructional Technology
- Michael E. Mays - Ph.D. (Penn. State University)
  Director of the Institute for Mathematics Learning, Number Theory
- Sherman D. Riemenschneider - Ph.D. (Syracuse University)
  Emeritus, Approximation Theory, Wavelet Theory
- Jerzy Wojciechowski - Ph.D. (University of Cambridge)
  Combinatorics, Graph Theory
- Cun-Quan Zhang
  Graph Theory, Combinatorics

ASSOCIATE PROFESSOR

- Marjorie Darrah - Ph.D. (WVU)
  Educational Technology, Algorithm Development, K-12 Outreach
- Edgar Fuller - Ph.D. (University of Georgia)
  Geometric Knot Theory, Mathematics Education
- Gary H. Ganser
  Applied Mathematics, Fluid Mechanics, Numerical Analysis
- Rong Luo
  Discrete Mathematics

- David Miller - Ph.D. (Oklahoma State University)
  Undergraduate Mathematics Education, Cognitive Science
- James E. Moseley
  Partial Differential Equations, Modeling

ASSISTANT PROFESSOR

- Jessica Deshler - Ph.D. (University of New Mexico)
  Undergraduate Mathematics Education
- Nicole Engelke-Infante
  Undergraduate Mathematics Education
- Adam Halasz - Ph.D. (State University of New York at Stony Brook)
  Mathematical Biology, Swarm Robotics
- Kevin Milans - Ph.D. (University of Illinois at Urbana Champaign)
  Combinatorics, Graph Theory
- Vicki Sealey - Ph.D. (Arizona State University)
  Mathematics Education
- Charis Tsikkou
  Nonlinear PDE
- Adrian Tudorascu - Ph.D. (Carnegie Mellon University)
  Partial Differential Equations

Master's Admission Information

Admission to the M.S. program requires a WVU admission application and submission of applicable transcripts. International students must supply a passing TOEFL score or other acceptable evidence of English proficiency. Students seeking financial aid should also supply an assistantship application and three letters of recommendation. GRE scores are not required.

Programs are available for students to study applied mathematics, pure mathematics, industrial/applied mathematics, or mathematics for secondary educators. For regular admission to the M.S. program, students should have the equivalent of an undergraduate major in mathematics, including at least one semester of advanced calculus (Math 451 or equivalent) and courses in linear algebra and modern algebra. Students with deficiencies may be admitted provisionally; deficiencies are expected to be made up in the first year of study. A minimum of three semesters of calculus is normally required for such admission, but students can often complete their remaining calculus courses during the summer prior to full-time enrollment. To be in good standing, a student is expected to maintain at least a 3.0 average (B) in mathematics courses and to present at least a 3.0 average in all work offered in fulfillment of the degree program.

ADVISORY COMMITTEE

Each student will be assigned an advisory committee consisting of at least three members of the graduate faculty. This committee will assist the student in designing a written plan of study that takes into account the student's interests and needs as well as the aims of the department's graduate programs. Later changes in the plan are possible only through mutual agreement of the student and the committee.

PROGRAMS

The student's plan of study is developed in one of these programs: applied mathematics, pure mathematics, industrial/applied mathematics, or mathematics for secondary educators. The programs are designed either for students who intend to pursue a doctor of philosophy in mathematics or the mathematical sciences or for those planning to seek employment in education, government, or industry. Depending upon the program selected, thirty to thirty-three semester hours of approved coursework are required.

Note: MATH 590/690/696/697/790/797 may not be counted for credit to satisfy graduate course requirements.

EXAMINATIONS/THESES/PROJECTS

Upon beginning graduate study, all M.S. students are given a basic exam in advanced calculus and linear algebra for purposes of course placement. Depending on the program chosen, students must complete examinations, a thesis, or a project as a graduation requirement.

Ph.D. Admission Requirements

For regular admission, applicants for the Ph.D. program must have completed a graduate degree similar to the M.S. in mathematics outlined above. Students with an exceptionally strong undergraduate background may sometimes be admitted provisionally, with twelve–eighteen credit hours of additional coursework required.

The following materials should be submitted:

- A WVU admission application

- An application for financial support (optional)
- Official undergraduate and graduate transcripts
- Three letters of recommendation from individuals having experience with the applicant's mathematical ability
- TOEFL or IELTS scores for students whose native language is not English

All doctoral students must demonstrate that they are prepared to undertake doctoral work and research by passing an entrance examination, given each year in April and August, within two years after enrolling. Students must pass examinations in two areas from among the four areas of algebra, real analysis, topology, and differential equations. For students in the CCDM option (see below), one of these area exams is replaced by an examination over the CCDM core curriculum.

Beyond any coursework taken to remove deficiencies while a provisional student, a minimum of twenty-four hours of approved coursework is required of all doctoral students, which must include a major area and two minor areas. Certain level and distribution requirements apply to a student's program. In addition, doctoral students must enroll for one credit hour of graduate seminar each semester they are in residence.

Ph.D. students may choose the CCDM option, which requires a minimum of 33 credit hours of coursework and includes designated core courses in discrete mathematics, statistics, and computer science. Students may undertake mathematics research of an interdisciplinary nature among these three areas.

Dissertation Committee

After the above requirements are satisfied, a student must request that the Director of Graduate Studies select a dissertation committee of at least five members (with a dissertation advisor as chairperson and one member from outside the department) for them.

Master of Science

MAJOR REQUIREMENTS

A minimum GPA of 3.0 is required in all courses applied toward for the degree.

A minimum grade of B or higher is required for Mathematics courses included in the program of study.		
Select an Area of Emphasis *		28-34
MATH 543	Linear Algebra	3
Real Analysis Requirement		3-6
MATH 451 & MATH 452	Introduction to Real Analysis 1 and Introduction to Real Analysis 2	6
or MATH 551	Real Variables 1	
MATH 694	Professional Tools	
Total Hours		**40-49**

* At most four courses in the plan of study may be from outside mathematics.

Other Curriculum Requirements:

Students must also meet these option prerequisites:

   Partial differential equations (MATH 261 or MATH 465)

         (may be satisfied by taking MATH 522)

   Probability Theory (STAT 215 or STAT 461)

         (may be satisfied by taking STAT 561)

Students must complete at least two courses from Math 452, Math 541, Math 543, Math 551, Math 555, and Math 581 with a grade of at least B in each.

Including required courses above, at least one course from 4 different groups below must be included. Within two different groups there must be a sequence of two suitably linked courses. Overall, at most 4 courses may be taken from outside the Mathematics Department, subject to approval by the Graduate Director.

I. Computation/optimization: MATH 521, MATH 522

II Probability theory/mathematical statistics: STAT 561-562 (other approved STAT courses provided STAT 562 is taken)

III. Algebra/Discrete Math: MATH 541, MATH 543, MATH 571, MATH 573, MATH 545, MATH 645. CS courses as approved by the advisor and the Graduate Director

IV. Modeling: MATH 563, an approved course involving modeling, possibly outside Mathematics.

V. Mathematical Analysis: MATH 452, MATH 551, MATH 651, MATH 555

VI. Graduate courses (one 400-level possible with permission) from outside MATH/STAT/CS. These are to be approved by the Graduate Director.

APPLIED MATHEMATICS AREA OF EMPHASIS

Core Courses (two of the following three)		6
MATH 541	Modern Algebra	
MATH 551	Real Variables 1	
MATH 581	Topology 1	
One additional course, which may be the remaining core course or chosen from Math 564, Math 555, Math 571, Math 573, Math 545, Math 578, Math 541 . Math 551 may simultaneously satisfy the Real Analysis Requirement and one of the core courses.		3
Additional Electives [*]		15
Total Hours		**24**

[*]   Students may elect to write an M.S thesis representing three credits of this requirement.

PURE MATHEMATICS AREA OF EMPHASIS

Minimum grade of B or higher is required in all courses.

Core Courses		
MATH 541	Modern Algebra	3
MATH 551	Real Variables 1	3
MATH 581	Topology 1	3
Additional Electives [*]		18
Math 551 may simultaneously satisfy the Real Analysis Requirement and one of the core courses.		
Total Hours		**27**

[*]   Students may elect to write an M.S thesis representing three credits of this requirement.

MATHEMATICS FOR SECONDARY EDUCATION AREA OF EMPHASIS

MATH 535	Foundations of Geometry	3
MATH 541	Modern Algebra	3
Choose one STAT course:		3-6
STAT 561	Theory of Statistics 1	
STAT 505	Foundations of Probability and Statistics	
STAT 511 & STAT 512	Statistical Methods 1 and Statistical Methods 2	
Applied/Discrete Math Elective		3
MATH 521	Numerical Analysis	3
MATH 530	Introduction to Applied Mathematics	
MATH 545	Number Theory 1	
MATH 563	Mathematics Modeling	
MATH 564	Intermediate Differential Equations	
MATH 571	Combinatorial Analysis 1	3
MATH 573	Graph Theory	3
Algebra/Geometry Elective		3
MATH 534	Modern Algebra For Teachers 2	
MATH 536	Transformation Geometry	
MATH 641	Modern Algebra 2	
Total Hours		**24-27**

INTERDISCIPLINARY MATHEMATICS AREA OF EMPHASIS

Core Courses

MATH 521	Numerical Analysis	3
MATH 563	Mathematics Modeling	3
MATH 564	Intermediate Differential Equations	3
MATH 567	Advanced Calculus (waived if Math 451-452 are taken)	3
Complex Variables (Choose One)		
MATH 456	Complex Variables (min. grade of B)	3
MATH 555	Complex Variables 1	3
MATH 568	Advanced Calculus	3
Additional Coursework [*]		9
Total Hours		**30**

[*] Students are required to do a project representing one credit, with a written report and an open presentation, approved by the advisory committee. An internship may be substituted, with prior approval.

Doctor of Philosophy

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

MATH 694	Seminar	2
or MATH 696	Graduate Seminar	
Foreign Language Requirement		
Complete the following coursework or select an area of emphasis:		
Major Area		12
Minor Area 1		6
Minor Area 2		6
Group A (Algebra/Number Theory/Discrete Mathematics/Set Theory) Courses and possible minor sequences:		
MATH 641 & MATH 747	Modern Algebra 2 and Advanced Topics in Modern Algebra	
MATH 745 & MATH 746	Analytic Number Theory 1 and Analytic Number Theory 2	
MATH 573 & MATH 773	Graph Theory and Advanced Topics in Graph Theory	
MATH 683 & MATH 783	Set Theory and Applications and Set Theory and Applications	
MATH 771 & MATH 772	Matroid Theory 1 and Matroid Theory 2	
Other electives in Group A as offered		
Group B (Analysis/Differential Equations/Numerical Analysis and Computational Mathematics/Topology) Courses and minor sequences		
MATH 751 & MATH 752	Functional Analysis 1 and Functional Analysis 2	
MATH 757 & MATH 758	Theory of Partial Differential Equations 1 and Theory of Partial Differential Equations 2	
Other electives in Group B as offered		
One minor sequence may be chosen outside Groups A and B with permission of the Graduate Director, including:		
MATH 791	ADTP:Rsrch-Undrgrd Math Ed 4	
Research		24
MATH 797	Research	
Entrance Examination		
Qualifying Examination		
Dissertation Proposal		
Dissertation		

Dissertation Defense	
Total Hours	**50**

LANGUAGE REQUIREMENT

Each Ph.D. student must demonstrate a reading knowledge of French, German, or Russian. The Graduate Programs Committee may approve the substitution of a different foreign language or a computer language for fulfillment of this requirement.

Further information may be obtained from the department's website at http://www.math.wvu.edu or by contacting the graduate director at gradprog@math.wvu.edu. Details on program requirements can be found in the Department's Graduate Handbook, available at http://www.math.wvu.edu/graduate_handbook.

Applied Mathematics Area of Emphasis

Students in this option must complete the four course RUME sequence. Students must also complete six additional mathematics courses, chosen from the areas in Groups A and B above in include at least four courses at the 700-level. At least two courses should be chosen from each group A and B so as to fulfill the requirements of a minor area. The remaining two courses can be used, for instance, to acquire additional breadth in mathematics or to achieve research level depth in an area. Course options are listed above. In cases where RUME 1-2 have been taken in the M.S program, only RUME 3-4 are required.

MATH 791 RUME 1-4		6-12
Minor Area 1		6
Minor Area 2		6
Electives		6
Research		24
MATH 797	Research	
Entrance Examination		
Qualifying Examination		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**48-54**

Discrete Mathematics Area of Emphasis

This option is provided for students who wish to work in the intersection of computing, discrete mathematics, and data analysis.

CS 520	Advanced Analysis of Algorithms	3
MATH 571	Combinatorial Analysis 1	3
MATH 573	Graph Theory	3
STAT 561	Theory of Statistics 1	3
A major area and minor areas, representing at least 24 hours at the doctoral level must be chosen from at least three of the groups listed below. For CCDM students with mathematics chairs, the major area and one of the minor areas must be taken within the Department of Mathematics. For CCDM students with mathematics and computer science/statistics co-chairs, either the major area or both of the minor areas must be taken within the Department of Mathematics		
Group A- Algebra/Number Theory/Discrete Mathematics/Set Theory		
Group B- Analysis/Differential Equations/Numerical Analysis and Computational Mathematics/Topology		
Group C- (CS courses) Algorithms, Automata Theory, Formal Languaged, Advanced graphics and image processing, Data Mining, Pattern Recognition, Artificial Intelligence		
Group D- (STAT courses) Daat Mining, Advanced Statistical Theory, Stochastic Processes, Bioinformatics		
Major Area		12
Minor Area		6
Minor Area		6
Research		24
MATH 797	Research	
Entrance Examination		
Qualifying Examination		
Dissertation Proposal		

Dissertation	
Dissertation Defense	
Total Hours	**60**

M.S. Examinations

Students in the Applied Mathematics area of emphasis must pass the M.S Advanced Exam by passing two subject area exams at the M.S level, taken from among Real Analysis, Algebra, Topology, and Differential Equations. No more than three attempts at any one subject area exam are permitted.

Students in the Pure Mathematics area of emphasis must pass the M.S. Advanced Exam by passing two subject area exams at the MS level, taken from among Real Analysis, Algebra, Topology, and Differential Equations. No more than three attempts at any one subject area exam are permitted.

Students in the Mathematics for Secondary Education area of emphasis must pass a final written examination based on their course work, consisting of four sections: algebra, geometry, applied/discrete mathematics, and probability/statistics. With the approval of the Advisory Committee, the exam may be taken after completion of the required 18 hours of graduate mathematics courses and the core curriculum.

Ph.D. Examinations

1) Students must pass the Ph.D. Entrance Examination by the end of their second year in the program. This entails passing two subject area exams at the Ph.D. level, from among Algebra, Real Analysis, Topology, and Differential equations. Any exam may be taken up to three times.

2) Students must pass the Qualifying Examination by the end of their third year. Students whose dissertation area is Research in Undergraduate Mathematics Education will be provided by their committee with a research assignment, based on content areas and research techniques in the field, to be completed over a four-week period. The results will be presented in written form and orally examined by the student's committee. Second, the student must present a thesis prospectus. The student's committee must approve the outcome of both the exam and the prospectus.

3) For each minor area in which the GPA is not 3.5 or above, as part of the Qualifying Exam, the student must take an exam over the minor area to assess competency.

Physics

Degrees Offered

- Master of Science
- Doctor of Philosophy

Nature of the Program

The graduate program is designed to provide a solid background in classical and modern physics, a broad understanding of major research fields, and concentrated research experience in one area. Applicants normally enter with a bachelor of science degree in physics. A student whose background is weak in a particular area is encouraged to register for the appropriate undergraduate course. The normal first-year courses include PHYS 611, PHYS 651, PHYS 631, and PHYS 633 plus possible electives. In the courses, no distinction is made between those students who intend a terminal M.S. degree and those who intend a Ph.D. degree. The minimum grade for credit in graduate courses is C, and a grade point average of 2.75 must be maintained.

Financial Aid

With rare exceptions, all students who are admitted receive financial support. Beginning students usually receive teaching assistantships; more advanced students receive research assistantships. Several fellowships are available for outstanding students, allowing full-time concentration on coursework and research and a more rapid progress toward the degree.

FACULTY

CHAIR

- David Lederman - Ph.D. (University of California - Santa Barbara)
  Robert L. Carroll Professor, Experimental Condensed Matter Physics

PROFESSORS

- Wathiq Abdul-Razzaq - Ph.D. (University of Illinois at Chicago)
  Physics Education
- Leonardo Golubovic - Ph.D. (University of Belgrade)
  Theoretical Condensed Matter Physics and Statistical Physics
- Mark E. Koepke - Ph.D. (University of Maryland)

Plasma Physics, Experiment

- David Lederman - Ph.D. (University of California - Santa Barbara)
  Robert L. Carroll Professor, Experimental Condensed Matter Physics
- Earl E. Scime - Ph.D. (University of Wisconsin - Madison)
  Oleg Jefimenko Professor, Plasma Physics, Experiment

ASSOCIATE PROFESSORS

- Paul Cassak - Ph.D. (University of Maryland)
  Plasma Physics, Theory
- James P. Lewis - Ph.D. (Arizona State University)
  Computational Condensed Matter Physics
- Duncan Lorimer - Ph.D. (University of Manchester)
  Astrophysics
- Maura McLaughlin - Ph.D. (Cornell University)
  Astrophysics
- Aldo Romero - Ph.D. (University of California - San Diego)
  Theoretical Condensed Matter Physics

ASSISTANT PROFESSORS

- Loren Anderson - Ph.D. (Boston University)
  Astrophysics
- Alan Bristow - Ph.D. (University of Sheffield)
  Experimental Condensed Matter Physics
- Cheng Cen - Ph.D. (University of Pittsburgh)
  Experimental Condensed Matter Physics
- Edward Flagg - Ph.D. (University of Texas - Austin)
  Experimental Condensed Matter Physics
- Mikel Holcomb - Ph.D. (University of California - Berkeley)
  Experimental Condensed Matter Physics
- Sean McWilliams - Ph.D. (University of Maryland)
  Astrophysics
- D.J. Pisano - Ph.D. (University of Wisconsin - Madison)
  Astrophysics
- Julian Schulze - Ph.D. (Ruhr University - Bochum)
  Plasma Physics, Experiment
- Tudor Stanescu - Ph.D. (University of Illinois)
  Theoretical Condensed Matter Physics

TEACHING ASSISTANT PROFESSOR

- Paul Miller - Ph.D. (West Virginia University)
  Physics Education Research

RESEARCH PROFESSORS

- Vladimir Demidov - Ph.D. (St. Petersburg University)
  Plasma Physics and Plasma Chemistry
- Mohindar S. Seehra - Ph.D. (University of Rochester)
  Experimental Condensed Matter Physics

RESEARCH ASSISTANT PROFESSORS

- Pavel Borisov - Ph.D. (University of Duisburg - Essen)
  Experimental Condensed Matter Physics
- Yuri Glinka - Ph.D. (Shevchenko State University)
  Condensed Matter Physics
- Amy Keesee - Ph.D. (Davidson College)
  Plasma Physics

PROFESSORS EMERITI

- Martin Ferer - Ph.D. (University of Illinois)

Theoretical Condensed Matter Physics and Statistical Physics
- Larry Halliburton - Ph.D. (University of Missouri - Columbia)
  Experimental Condensed Matter Physics
- Arthur S. Pavlovic - Ph.D.
  Experimental Condensed Matter Physics
- Mohindar S. Seehra - Ph.D. (University of Rochester)
  Experimental Condensed Matter Physics
- Richard Treat - Ph.D. (University of California - Riverside)
- H. Arthur Weldon - Ph.D. (Massachusetts Institute of Technology)
  Particle Physics

Admission

Applicants are expected to have a bachelor's degree in physics with upper-division courses in electricity and magnetism, mechanics, quantum mechanics, thermodynamics, and mathematical methods. Students lacking some of these courses may be admitted provisionally and will be allowed to remedy the deficiencies by taking the appropriate undergraduate courses. Both the GRE General Test and the GRE Physics Subject Test are required. If English is not the student's native language, TOEFL or IELTS scores are also required. The application deadline is February 15. Contact the department for additional information.

Master of Science
MAJOR REQUIREMENTS

Minimum grade of C or higher is required in all courses applied toward degree.

Major Requirements		
PHYS 611	Introduction to Mathematical Physics	3
PHYS 631	Advanced Classical Mechanics 1	3
PHYS 633	Electromagnetism 1	3
PHYS 651	Quantum Mechanics 1	3
PHYS 761	Statistical Mechanics	3
Select either non-thesis or thesis option		9
Non-Thesis Option:		
Physics Electives [*]		
Thesis Option:		
Physics Elective		
PHYS 697	Research	
Total Hours		**24**

Doctor of Philosophy

The Ph.D. requires 36 hours of courses at the 600 or 700-levels. These twelve courses must include seven of the following basic courses:

MAJOR REQUIREMENTS

PHYS 611	Introduction to Mathematical Physics	3
PHYS 631	Advanced Classical Mechanics 1	3
PHYS 633	Electromagnetism 1	3
PHYS 634	Electromagnetism 2	3
PHYS 651	Quantum Mechanics 1	3
PHYS 652	Quantum Mechanics 2	3
PHYS 761	Statistical Mechanics	3
Select at least two from the following:		6
PHYS 772	Semiconductor Physics	
PHYS 773	Collective Phenomena in Solids	
PHYS 774	Optical Properties of Solids	
PHYS 783	Advanced Kinetic Theory of Plasmas	
PHYS 784	Advanced Magnetohydrodynamic Theory of Plasmas	
and/or		

PHYS 791	Advanced Topics	
ASTR 702	Stellar Structure and Evolution	
ASTR 703	Galactic Astronomy	
ASTR 704	General Relativity	
Plus three additional graduate courses in physics or astronomy		9
Comprehensive Examination		
Dissertation Proposal		
Dissertation		
Dissertation Defense		
Total Hours		**36**

PH.D. CANDIDACY EXAMINATIONS

To be admitted to candidacy for the Ph.D., a student must pass both a written and an oral candidacy examination. The written examination consists of three parts: a quantum mechanics exam in May, an electromagnetism exam in August, and a classical mechanics exam in January. To be eligible to take any candidacy exam, the student must be in good standing (see below).

The oral part of the candidacy exam is a presentation to the five faculty on the student's doctoral committee. The student gives a lecture on some published research that has been assigned by his or her research advisor.

RESEARCH REQUIREMENTS

Research is the central focus of the degree and is directed by a faculty advisor over a period of several years. When the research is completed, the student must write a dissertation and defend it before the doctoral committee of five faculty. The average completion time for the Ph.D. is five years beyond the B.S. Research specialties within the department include astrophysics, computational physics, condensed matter physics, fluid mechanics, nonlinear dynamics, and plasma physics.

Academic Standards

To be a graduate student in good standing requires the following:

- Maintain a GPA of 2.75 or better in graduate physics courses taken at WVU, excluding PHYS 797.
- Pass two sections of the written candidacy examination by the end of three years.
- Pass the remaining third section of the written candidacy examination by the end of four years.
- Select a Ph.D. committee of five faculty.
- Complete the oral candidacy examination within three semesters (after completing the third section of the written candidacy examination).

Students admitted as M.S. degree candidates are not expected to take the graduate qualifying exams but must maintain at GPA of 2.75 and complete their M.S. degree within three years.

Political Science

Degrees Offered

- Master of Arts
- Doctor of Philosophy

Nature of the Program

To give advanced training to students who desire to enter research or teaching fields relating to American politics, public policy (either U.S. domestic or international), comparative politics, and/or international politics, and to those seeking careers as policy analysts in government or the private sector.

The Master of Arts is designed to provide students with a broad knowledge of political science and the policy-making process. This includes the study of many over-arching factors shaping political thought, analysis, decision-making, and an examination of specific influences that shape public policies at the international, national, state, and local levels of government. Students choose classes from the fields of American politics, comparative politics, international relations, and public policy in addition to taking three classes in political methodology designed to ensure students possess expertise in how to conduct systematic quantitative research. Most graduates will take jobs in government or with private firms needing specialists in policy analysis; however, this degree also leaves students well-placed for further study of these issues in Ph.D. programs.

The Doctor of Philosophy degree is designed for people planning careers as researchers and teachers in institutions of higher education or as policy analysts in government or the private sector. All students are expected to complete coursework that should include mastery of two of the four major subfields (the subfields include American politics, international politics, comparative politics, and public policy) and to pass general exams in two of

them. The student's coursework will provide them with a firm grounding in relevant literatures and prepare them to make their own contributions to the fields in which they specialize. Coursework is also available to train students as expert analysts who will leave the program with a comprehensive knowledge of policy formulation, implementation, and evaluation, as well as a thorough understanding of the dynamics of political institutions. The design of the program will ensure that our graduates are trained in research methodology and statistical techniques.

Faculty

The Department of Political Science has nineteen full-time faculty members. The major strengths of the graduate faculty consist of American politics (specialties include political institutions, political behavior, public opinion, and judicial politics), public policy (specialties include bureaucracy, law and society, and social welfare policies), international politics (specialties include U.S. foreign policy, comparative foreign policy, international political economy, and national security policy), comparative politics (specialties include comparative political institutions, elections systems, contentious politics, and cross-national political analysis), and research methods.

Research

Graduate students have opportunities to conduct research with political science faculty. Several members of the faculty regularly co-author papers with graduate students. Some graduate students have coauthored articles and book chapters with faculty and have worked on externally-funded grant projects.

Financial Aid

The department has a number of Graduate Assistant (GA) positions. All new applicants are considered for these positions. GA positions cover full tuition and provide a stipend. In addition, the Department provides waiver hours for graduate students. These waiver hours provide for payment of all, or a portion, of tuition. The Department awards GA positions and waiver hours on a competitive basis because there are fewer GA positions and fewer waiver hours than students who desire them. The Department considers applicants' GRE scores, undergraduate and/or graduate GPAs, letters of recommendation, and so on when determining the merit of applicants. Although PhD students receive priority for funding, outstanding MA candidates have received funding in the past. Students interested in financial assistance should apply directly to the Department of Political Science. Graduate assistants may enroll for no more than nine credit hours per semester (excluding colloquium).

FACULTY

CHAIR
- R. Scott Crichlow - Ph.D. (Louisiana State University)

PROFESSORS
- Joe D. Hagan - Ph.D. (University of Kentucky)
  Barnette Professor, International Relations and World Politics, Comparative Foreign Policy Analysis
- Erik Herron - Ph.D. (Michigan State University)
  Eberly Family Professor, Political Institutions, Elections, Post-Communist Europe and Eurasia
- Jeffrey S. Worsham - Ph.D. (University of Wisconsin)
  Public Policy (Regulation, Social Welfare), Bureaucratic Politics and Public Administration

ASSOCIATE PROFESSOR
- Erin Cassesse - Ph.D. (State University of New York, Stony Brook)
  American Politics and Political Behavior; Gender, Religion, and Public Opinion; Political Psychology, Research Methods
- R. Scott Crichlow - Ph.D. (Louisiana State University)
  International Relations, Foreign Policy Decision-making, Middle East Politics
- Christina Fattore - PhD (Florida State University)
  International Political Economy, International Organization, European Union Politics
- John Kilwein - Ph.D. (Ohio State University)
  Associate Chair, Public Law, Judicial Politics, Public Policy, Public Administration
- Jason MacDonald - Ph.D. (The George Washington University)
  American Politics, Congress, Research Methods
- Philip Michelbach - Ph.D. (University of California)
  Political Theory, American Political Thought, German Political Thought, Comparative Democratic Theory
- Trisha Phillips - Ph.D. (Rice University)
  Social and Political Philosophy, Moral Philosophy, Research Ethics

ASSISTANT PROFESSOR
- Shauna Fisher - Ph.D. (University of Washington)
  Judicial Politics, Law and Courts, Judicial Policy-Making

- Patrick Hickey - Ph.D. (University of Texas)
  American Political Institutions, Presidency
- Matthew Jacobsmeier - Ph.D. (University of Rochester)
  American Politics, Political Behavior, Public Opinion, Research Methods
- Mason Moseley - PhD (Vanderbilt University)
  Comparative Politics, Latin American Politics, Comparative Political Institutions
- Matthew Wilson - Penn State University
  Comparative Politics, Latin American Politics, Research Methodology

TEACHING ASSISTANT PROFESSOR

- David Hauser - Ph.D. (University of Pittsburgh)
  International Conflict, National Security Analysis

M.A. ADMISSION INFORMATION

Most applicants for the Master of Arts degree will have completed a B.A. in Political Science. However, students from other fields and disciplines are also encouraged to apply. Applicants should have an overall grade point average of 3.0 or better and should submit three letters of recommendation from faculty familiar with their work. All students must also submit the results of the Graduate Record Examination.

In order to remain in good standing, students must maintain a 3.0 cumulative average and receive a 3.0 average in each semester for which they are enrolled. Students who do not maintain a 3.0 cumulative average will be placed on probation and will be suspended if they fail to regain a 3.0 cumulative average in their next nine hours of study. Successful completion of the degree entails completing 36 hours of Political Science courses, not counting any hours earned for POLS 799. 9 of those hours must include completion of POLS 600, POLS 601, and POLS 602. All students must enroll in POLS 799 (http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/politicalscience) each semester in residence.

PH.D. ADMISSION INFORMATION

Admission to the Ph.D. program is open to students with either a bachelor's or master's degree. Students with degrees in political science, economics, public administration, sociology, history, psychology, engineering, social work, business, law, medicine, or journalism are encouraged to apply. Applicants should have a grade point average of 3.5 or better. Some training in statistics and a strong background in written communication is desired. In addition, all applicants must submit the results of the Graduate Record Examination and at least three letters of recommendation from faculty familiar with the applicant's work. Applicants from foreign countries must submit the official results of the Test of English as a Foreign Language (TOEFL) as well. Admission will be based on an overall assessment of the individual's record.

Students must complete 42 hours of coursework. This should include 12 hours in each of two subfield specialties (students will work with their advisors to build an appropriate combination of classes to cover two of the following four subfields – American politics, public policy, comparative politics, and international relations), 12 hours of research methods courses, and 6 hours of Political Science electives. In addition to their coursework, students must also pass written comprehensive examinations in their two specialty subfields and complete and defend a dissertation. All coursework completed for the M.A. at West Virginia University also counts toward the Ph.D. Coursework from other institutions will be evaluated on a case-by-case basis.

In order to remain in good standing, students must maintain a 3.0 cumulative average and receive a 3.0 average in each semester during which they are enrolled. Students are required to spend at least one year (two semesters) in residence. All graduate students must enroll in POLS 799 (http://catalog.wvu.edu/graduate/eberlycollegeofartsandsciences/politicalscience) each semester in residence.

Master of Arts

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Students must register for POLS 799 each semester they are in residence.		
POLS 600	Introduction to Political Research	3
POLS 601	Quantitative Political Analysis	3
POLS 602	Advanced Quantitative Methods	3
Political Science Electives (any 400, 500, 600, 700 level POLS course excluding POLS 799. A maximum of 12 hours of 400-level coursework and at least 24 hours of 500-level of higher coursework).		27
Total Hours		**36**

Doctor of Philosophy

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Students must register for POLS 799 each semester they are in residence.	

Select two from the following:		24
American Politics (12 hours)		
POLS 593	SPTP:Minority Political Research	
POLS 630	Seminar: American Politics and Policy	
POLS 691	Advanced Topics	
POLS 710	Judicial Politics, Policy and Law	
POLS 712	American Construction and Political Development	
POLS 715	The American Presidency	
POLS 791	ADTP:Public Opinion/Poltical Behavior	
POLS 791	Advanced Topics	
POLS 791	ADTP:Political Behavior	
Comparative Politics (12 hours)		
POLS 493	Special Topics	
POLS 493	Special Topics	
POLS 493	SPTP:International Organiztns	
POLS 550	Comparative Politics	
POLS 555	Comparative Public Policy	
POLS 559	Contentious Politics	
POLS 591	ADTP: State in World Politics	
POLS 591	Advanced Topics	
POLS 593	SPTP: Contentious Politics	
POLS 593	SPTP:Comp Pol Developing World	
POLS 691	ADTP:African Politics	
POLS 691	Advanced Topics	
POLS 691	ADTP:Western Dem Politics	
International Relations (12 hours)		
POLS 560	International Theory and Policy	
POLS 591	ADTP:State in World Politics	
POLS 591	ADTP:International Conflict	
POLS 600	Introduction to Political Research	
POLS 665	Comparative Foreign Policy	
POLS 666	National Security Policy	
POLS 667	Foreign Policy Decision Making	
Public Policy (12 hours)		
POLS 493	Special Topics	
POLS 493	SPTP:Minority Poilitics	
POLS 530	Policy Analysis	
POLS 531	Economic Analysis of Politics	
POLS 536	Politics of Agenda Setting	
POLS 555	Comparative Public Policy	
POLS 591	Advanced Topics	
POLS 591	ADTP:Research Ethics	
POLS 611	Intergovernmental Relations	
POLS 635	Seminar: Policy Evaluation	
POLS 638	Seminar: Policy Implementation	
POLS 691	Advanced Topics	
Political Science electives (any 500, 600, 700 level POLS course excluding coursework used to satisfy field coursework requirement and POLS 797 and POLS 799)		6
POLS 600	Introduction to Political Research	3
POLS 601	Quantitative Political Analysis	3
POLS 602	Advanced Quantitative Methods	3
Select from one of the following:		3

POLS 593	SPTP:Qualitative Political Meth	
POLS 591	ADTP:International Conflict	
POLS 603	Advanced Quantitative Analysis	
POLS 670	Professional Seminar in Political Theory	
HIST 700	Historiography	
SOCA 511	Survey Research Methods	
SOCA 721	Qualitative Methods	
STAT 513	Design of Experiments	
Dissertation		24
POLS 797	Research	
Comprehensive Exam Field 1		
Comprehensive Exam Field 2		
Disertation Prospectus		
Dissertation		
Dissertation Defense		
Total Hours		**66**

Psychology

Degrees Offered

- Master of Science
- Doctor of Philosophy

Program Areas of Emphasis Offered

The doctoral degree areas of emphasis in Behavior Analysis, Behavioral Neuroscience, Clinical & Clinical Child Psychology, and Life-Span Developmental Psychology prepare students for careers in research, teaching, and/or practice.

Program Accreditation

The Clinical Program at West Virginia University is comprised of two training areas of emphasis: Clinical Psychology and Clinical Child Psychology. The Program has been accredited continuously by the American Psychological Association since 1966. In 2012, the Program was re-accredited for a full 7 years, with the next site visit scheduled to occur in 2019. For any questions regarding accreditation of this or any other program, contact the Office of Program Consultation and Accreditation of the American Psychological Association, 750 First Street, NE, Washington, DC 20002. Phone number: (202) 336-5979. Website: http://www.apa.org/ed/accreditation.

The Behavior Analysis Program at West Virginia University is accredited by the Association for Behavior Analysis International. In 2014, the Program was re-accredited from 2014-2019.

Admission

Students are admitted only at the beginning of the fall semester. Applications must be completed by the preceding December 15.

Acceptance is based on the following:

- Adequate academic aptitude at the graduate level as measured by the Graduate Record Examination
- Achievement in undergraduate coursework with a minimum grade point average of 3.0
- Personal qualities that predict success in graduate study and as a professional after graduation
- Adequate preparation in psychology and related fields
- Fit between the applicant's interests and the offerings of a department graduate program area of emphasis

Grade Point Average

Students must have a 3.0 average in all psychology courses attempted.

Non-Degree Students

Graduate courses in psychology are designed for regularly admitted degree-seeking psychology students as part of an extensive program of preparing those students for professional careers. Thus, students not admitted into one of the psychology graduate program areas are discouraged from taking graduate courses in psychology. Non-psychology graduate students must obtain the instructor's permission to enroll in any psychology graduate course.

FACULTY

CHAIR

- Kevin Larkin - Ph.D.

PROFESSORS

- Barry A. Edelstein - Ph.D. (University of Memphis)
  Eberly Family Distinguished Professor of Clinical Psychology. Clinical Gero-psychology, Anxiety and Decision-making in Older Adults
- William J. Fremouw - Ph.D. (University of Massachusetts)
  Forensic Psychology, Malingering and Deception
- Katherine Karraker - Ph.D. (Michigan State University)
  Associate Provost for Graduate Academic Affairs. Adults' Perceptions of Infants, Infant Social Development
- Kevin T. Larkin - Ph.D. (University of Pittsburgh)
  Clinical Health Psychology, Applied Psychophysiology, Cardiovascular Behavioral Medicine
- Kennon A. Lattal - Ph.D. (University of Alabama)
  Centennial Professor. Experimental Analysis of Behavior, History and Philosophy of Psychology, Human-Pet Interactions
- Cheryl B. McNeil - Ph.D. (University of Florida)
  Disruptive Behavior Disorders of Children, Child Behavior Therapy, Parent-Child Interactions
- Daniel W. McNeil - Ph.D. (University of Alabama)
  Eberly Family Professor for Outstanding Public Service. Experimental Psychopathology, Behavioral Dentistry and Behavioral Medicine, Pain and Anxiety
- Tracy L. Morris - Ph.D. (University of Mississippi)
  Eberly Distinguished Professor of Outstanding Teaching and Associate Dean for Research, Graduate Studies, and Outreach. Developmental Psychopathology, Social Anxiety, Peer Relationships
- Melanie C. Page - Ph.D. (Arizona State University)
  Assistant Vice President for Creative and Scholarly Activity. Quantitative/Developmental Psychology
- Michael Perone - Ph.D. (University of Wisconsin-Milwaukee)
  Associate Dean for Faculty. Positive and Negative Reinforcement, Animal and Human Operant Behavior, Research Methodology
- JoNell Strough - Ph.D. (University of Utah)
  Life-Span Development, Decision Making, Everyday Problem Solving, Gender Development

ASSOCIATE PROFESSORS

- Karen G. Anderson - Ph.D. (University of Florida)
  Behavioral Pharmacology, Self-Control and Impulsivity
- Christina Duncan - Ph.D. (Louisiana State University)
  Behavioral Pediatrics, Chronic Illness, Adherence
- Amy Fiske - Ph.D. (University of Southern California)
  Late Life Depression and Suicide
- Amy Gentzler - Ph.D. (Kent State University)
  Emotion Regulation and Coping in Childhood, Positive Psychology
- Amy Herschell - Ph.D. (West Virginia University)
  Dissemination of Evidence-Based Treatments
- Elisa Krackow - Ph.D. (Binghamton University-SUNY)
  Adult and Child Testimony, Developmental Psychopathology
- Hawley Montgomery-Downs - Ph.D. (University of Connecticut)
  Sleep, Sleep Disorders, Developmental Psychobiology
- Julie Hicks Patrick - Ph.D. (University of Akron)
  Decision Making, Family Processes in Mid- and Late-Life
- Claire St. Peter - Ph.D. (University of Florida)
  Applied Behavior Analysis, Assessment and Treatment of Problem Behavior, School-Based Interventions

ASSISTANT PROFESSORS

- Melissa Blank - Ph.D. (Virginia Commonwealth University)
  Behavioral Neuroscience, Tobacco Use, Tobacco-Related Health Risks, Genetics of Substance Use
- Regina Carroll - Ph.D. (University of Nebraska Medical Center)
  Applied Behavior Analysis, Autism and Developmental Disabilities
- Steven Kinsey - Ph.D. (Ohio State University)
  Behavioral Neuroscience, Stress and Inflammation
- Elizabeth Kyonka - Ph.D. (University of Canterbury)
  Quantitative Analysis of Behavior, Operant Conditioning, Comparative Cognition
- Aaron Metzger - Ph.D. (University of Rochester)
  Adolescent Social-Cognitive Development, Civic Engagement, Adolescent-Parent Communication
- Miranda Reed - Ph.D. (Auburn University)
  Alzheimer's Disease, Synaptic Correlates of Learning and Memory, Behavioral Pharmacology, Quantitative Analysis of Behavior
- Natalie Shook - Ph.D. (Ohio State University)
  Social Psychology, Attitudes and Emotion, Cognitive Bias
- Nicholas Turiano - Ph.D. (Purdue University)
  Personality, Health, and Aging

TEACHING ASSOCIATE PROFESSOR

- Connie Toffle - Ph.D. (West Virginia University)
  Teaching of Psychology

TEACHING ASSISTANT PROFESSOR

- Elizabeth Levelle - Ph.D. (West Virginia University)
  Teaching of Psychology, Academic Advising

PROFESSORS EMERITI

- Stanley Cohen - Ph.D.
- Philip Comer - Ph.D.
- Robert Hawkins - Ph.D.
- Kent Parker - Ph.D.
- Hayne Reese - Ph.D.

ADJUNCT ASSISTANT PROFESSORS

- Martin Boone - Ph.D., (Oklahoma State University)
- Kimberly Foley - Ph.D. (West Virginia University)
- Keegan Kowcheck - MA (West Virginia University)
- Kara Samaj - MA (West Virginia University)

Master of Science

Students who are accepted into the doctoral (Ph.D.) program in psychology will receive the M.S. degree upon completing the requirements listed below.

MAJOR REQUIREMENTS

PSYC 511	Research Design and Data Analysis 1	3
PSYC 795	Independent Study [*]	6
Research Methodology course from the following list or another methodology course approved by the student's advising committee:		3
PSYC 512	Research Design and Data Analysis 2	
PSYC 611	Single-Subject Research Methods	
PSYC 612	Multivariate Analysis	
PSYC 613	Quasi-Experimental Design	
PSYC 614	Program Evaluation and Intervention	
PSYC 711	Seminar in Methodology	
Electives		36
Thesis		
Total Hours		**48**

*   **PSYC 795**- A minimum of 6 credits is required

Doctor of Philosophy
MAJOR REQUIREMENTS

Degree Requirements

Minimum GPA of 3.0 is required.	
Area of Emphasis Requirements	40-85
Oral Examination	
Comprehensive Examination	
Dissertation	
Dissertation Defense	
Intership (required for clinical and clinical child training areas)	
Total Hours	**40-85**

BEHAVIOR ANALYSIS AREA OF EMPHASIS

Area of Emphasis Requirements

A minimum GPA of 3.0 is required in all courses		
PSYC 511	Research Design and Data Analysis 1	3
PSYC 512	Research Design and Data Analysis 2	3
PSYC 611	Single-Subject Research Methods	3
PSYC 732	Behavior Theory and Philosophy	3
PSYC 531	Experimental Analysis of Behavior	3
PSYC 533	Applied Behavior Analysis	3
PSYC 609	Ethics in Behavior Analysis	3
PSYC 731	Research Issues in Behavior Analysis	3
Select five of the following courses, or another course approved by the Behavior Analysis Training Committee. One course must be PSYC 737, PSYC 630, or PSYC 730.		15
PSYC 532	Human Behavior	
PSYC 615	Software Design in Psychology	
PSYC 630	Behavior Analysis Practicum	
PSYC 721	History and Systems	
PSYC 733	Stimulus Control and Memory	
PSYC 734	Reinforcement and Punishment	
PSYC 736	Advanced Experimental Analysis of Behavior	
PSYC 737	Advanced Applied Behavior Analysis	
PSYC 754	Clinical Psychopharmacology	
Research:		
PSYC 795	Independent Study [*]	6
Total Hours		**45**

*   Students are expected to be involved in research throughout your graduate career, and your enrollment in PSYC 795, should reflect this activity. You must complete at least six hours.

BEHAVIORAL NEUROSCIENCE AREA OF EMPHASIS

Area of Emphasis Requirements

A minimum GPA of 3.0 is required in all courses		
Core Behavioral Neuroscience Courses - All of the Following:		
PSYC 608	Professional Issues - Behavioral Neuroscience	1
PSYC 694	Seminar [*]	3
PSYC 650	Behavioral Neuroscience Methods	3
PSYC 701	Advanced Professional Issues in Psychology	1-3
Methodology Courses - Both of the Following		

PSYC 511	Research Design and Data Analysis 1	3
PSYC 512	Research Design and Data Analysis 2	3
Advanced Methodology Courses - One of the Following (after 511 & 512) [**]		3
PSYC 611	Single-Subject Research Methods	
PSYC 612	Multivariate Analysis	
PSYC 614	Program Evaluation and Intervention	
PSYC 711	Seminar in Methodology	
History, Philosophy, and Theory of Psychology - One of the Following:		3
PSYC 545	Conceptual Issues in Developmental Psychology	
PSYC 721	History and Systems	
PSYC 732	Behavior Theory and Philosophy	
Or an advanced course on History, Philosophy, or Theory of Psychology in Psychology or another department (Requires approval by Behavioral Neuroscience Training Committee)		
Research - As appropriate:		
PSYC 795	Independent Study [***]	6
Teaching Experience		
PSYC 606	Seminar on Teaching Psychology	1
PSYC 790	Teaching Practicum	1-3
Required elective courses approved by the Behavioral Neuroscience Training Committee		12
Total Hours		**40-44**

[*]   **Seminar in Behavioral Neuroscience** - Students must take this course every semester offered.

[**] **For Advanced Methodology Courses** - Students may also take an advanced course on research design or data analysis in Psychology, Statistics, or another department (requires approval by the Behavioral Neuroscience Training Committee).

[***] **Independent Study** - At least six hours during thesis work, continuous during dissertation work.

CLINICAL PSYCHOLOGY AREA OF EMPHASIS

Area of emphasis Requirements

A minimum GPA of 3.0 is required in all courses		
PSYC 511	Research Design and Data Analysis 1	3
PSYC 512	Research Design and Data Analysis 2	3
PSYC 655	Research Methods in Clinical Psychology [*]	3
PSYC 721	History and Systems	3
PSYC 661	Behavior Therapy	3
PSYC 671	Child Behavior Therapy	3
PSYC 653	Behavioral and Psychological Assessment 1	3
PSYC 654	Behavioral and Psychological Assessment 2	4
PSYC 531	Experimental Analysis of Behavior	3
PSYC 652	Clinical Interviewing	3
PSYC 603	Professional Issues in Clinical Psychology	1
PSYC 607	Ethical and Legal Issues in Psychology	3
PSYC 722	Biological Aspects of Behavior	3
PSYC 651	Behavior Pathology	3
PSYC 725	Social Psychology	3
PSYC 745	Seminar in Life-Span Development	3
Clinical Supervision (taken twice)		2
PSYC 755	Seminar in Clinical Supervision	
Practica and Internship: [**]		18
PSYC 660	Clinical Psychology Practicum	
PSYC 670	Clinical Child Psychology Practicum	
PSYC 750	Clinical Internship	3
Research: [***]		
PSYC 795	Independent Study	6

Electives approved by the Clinical Training Committee		9
Total Hours		**85**

*   **Research Methods in Clinical Psychology** counts as the third departmental methods course.

**   Students must complete at least 18 hours of practica (660 Clinical Psychology Practicum or 670 Clinical Child Practicum) and three hours of internship (750 Clinical Internship). At least two academic years of practica must be through a Quin Curtis Center Clinical Team, and you must have at least two different supervisor/team experiences, each lasting one academic year or twelve month period.

***   Students are expected to be involved in research throughout their graduate career, and their enrollment in PSYC 795 (Independent Study), should reflect this activity. Students must complete at least six hours.

CLINICAL CHILD PSYCHOLOGY AREA OF EMPHASIS

Area of Emphasis Requirements

A minimum GPA of 3.0 is required in all courses		
PSYC 511	Research Design and Data Analysis 1	3
PSYC 512	Research Design and Data Analysis 2	3
PSYC 655	Research Methods in Clinical Psychology *	3
PSYC 721	History and Systems	3
PSYC 661	Behavior Therapy	3
PSYC 671	Child Behavior Therapy	3
PSYC 653	Behavioral and Psychological Assessment 1	3
PSYC 654	Behavioral and Psychological Assessment 2	4
PSYC 531	Experimental Analysis of Behavior	3
PSYC 652	Clinical Interviewing	3
PSYC 603	Professional Issues in Clinical Psychology	1
PSYC 607	Ethical and Legal Issues in Psychology	3
PSYC 722	Biological Aspects of Behavior	3
PSYC 651	Behavior Pathology	3
PSYC 725	Social Psychology	3
PSYC 745	Seminar in Life-Span Development	3
Clinical Supervision (taken twice)		2
PSYC 755	Seminar in Clinical Supervision	
Practica and Internship: **		18
PSYC 660	Clinical Psychology Practicum	
PSYC 670	Clinical Child Psychology Practicum	
PSYC 750	Clinical Internship	3
Research: ***		
PSYC 795	Independent Study	6
Electives approved by the Clinical Child Training Committee		9
Total Hours		**85**

*   **Research Methods in Clinical Psychology** counts as third departmental methods course.

**   Students must complete at least 18 hours of practica (660 Clinical Psychology Practicum or 670 Clinical Child Practicum) and three hours of internship (750 Clinical Internship). At least two academic years of practica must be through a Quin Curtis Center Clinical Team, and students must have at least two different supervisor/team experiences, each lasting one academic year or twelve month period.

***   Students are expected to be involved in research throughout their graduate career, and their enrollment in PSYC 795 (Independent Study), should reflect this activity. Students must complete at least six hours.

LIFE-SPAN DEVELOPMENT PSYCHOLOGY AREA OF EMPHASIS

Area of Emphasis Requirements

A minimum GPA of 3.0 is required in all courses		
PSYC 511	Research Design and Data Analysis 1	3
PSYC 512	Research Design and Data Analysis 2	3
PSYC 545	Conceptual Issues in Developmental Psychology	3

PSYC 546	Methodological Issues in Developmental Psychology	3
PSYC 602	Professional Issues in Developmental Psychology	1-3
PSYC 701	Advanced Professional Issues in Psychology	1-3
PSYC 541	Infant Development	3
PSYC 542	Child Development	3
PSYC 543	Adolescent and Young Adult Development	3
PSYC 544	Adult Development and Aging	3
Advanced Methodology Courses (After PSYC 511 & 512)		6
You must take two of the following advanced methodology courses. Other advanced methodology courses approved by the Life-Span Developmental Training Committee also may be used to fulfill this requirement		
PSYC 611	Single-Subject Research Methods	
PSYC 612	Multivariate Analysis	
PSYC 614	Program Evaluation and Intervention	
PSYC 711	Seminar in Methodology [*]	
Research [**]		
PSYC 795	Independent Study	6
Electives approved by the Life-Span Developmental Training Committee[***]		9
Total Hours		**47-51**

[*]   Other courses approved by the Life-Span Developmental Training Committee may also be used to fulfill this requirement. PSYC 711 may be repeated for credit when the seminar topic is different.

[**]   Students are expected to be involved in research throughout their graduate career, and their enrollment in PSYC 795 (Independent Study) should reflect this activity.

[***]   Usually, electives include at least three credit hours of PSYC 745 (Seminar in Life-Span Development). PSYC 745 may be repeated for credit when topics differ.

Public Administration

Degree Offered

- Master of Public Administration

The Master of Public Administration (MPA) degree prepares individuals for a career in public service. WVU's Department of Public Administration offers the only nationally accredited MPA program in West Virginia. The MPA degree prepares individuals to work in government and nonprofit agencies to develop and implement public policies and programs. The MPA program offers flexible class times, full and part-time enrollment, small class settings, and opportunities to work directly with community and government organizations through team-based class projects, the internship experience, professional development activities and community service.

Dual Degrees

The department has established both joint degree and dual degree programs with a number of other graduate programs. A dual JD/MPA degree program has been established with the College of Law to provide preparation in both law and public administration. A dual MSW/MPA degree has been developed in cooperation with the School of Social Work to provide preparation for administrators in the social services. Dual degree programs may also be arranged with other academic programs and professional schools. Graduate studies regulations permit limited credit from one graduate degree to be applied to a second degree. Students may pursue two degrees and use approved coursework for both degrees. For more information: http://publicadmin.wvu.edu/.

FACULTY

CHAIR

- John C. Kilwein - Ph.D. (Ohio State University)
  Associate Professor, Constitutional Law, Public Law and Policy

PROFESSOR

- L. Christopher Plein - Ph.D. (University of Missouri)
  Eberly Professor of Outstanding Public Service, Legal and Political Foundations, Public Policy Analysis, Social Policy, Community and Economic Development

ASSOCIATE PROFESSORS

- Maja Husar Holmes - Ph.D. (Syracuse University)
  Public Management, Public Leadership, Environmental and Energy Policy
- Karen Kunz - D.P.A. (University of Illinois, Springfield)
  Financial Management, Corporate Use of Public Funds, Political Economy

ASSISTANT PROFESSORS

- Matthew Barnes - MA (Princeton University)
  American, state and local politics, environmental and energy politics and policy, and public opinion
- Paolo Farah - LLM, JD (College of Europe, University of Paris)
  Energy, Environment, and Natural Resource Law, Human Rights
- Margaret Stout - Ph.D. (Arizona State University)
  Local Government, Community Development, Public Policy and Public Planning

CLINICAL ASSISTANT PROFESSOR

- Nancy L. Adams - Ph.D. (Fielding Institute)
  Healthcare Management, Organization Development, Service Delivery Systems, Organization Behavior, Social Change

PROFESSORS EMERITI

- Gerald M. Pops - Ph.D. (Syracuse Univesity)
- David G. Williams - Ph.D. (State University of New York at Albany)

Admission

Candidates must meet the WVU general admission requirements for graduation from an accredited college and grade point average. Admission into the MPA program is competitive with decisions based on the following material:

- **Application for admission and transcripts**. (Apply here: http://admissions.wvu.edu/admissions/how-to-apply)
- **Two Recommendations**. Recommendations from professional or academic references should be requested through the online Graduate Application portal.
- **Current Resume**. Please list work experience, volunteer activities, internships, academic degrees and honors, and other accomplishments you feel the admissions committee should take into account in reviewing your application.
- **Personal Statement**. Provide a letter of intent indicating your interest in a career in public service, what you hope to gain from the MPA program, and why WVU offers you the best opportunity for achieving your professional goals. Please note in the letter of intent if you are applying for a graduate exam waiver request in the application based on one of the exceptions noted below.
- **Graduate Exam Scores (GRE, GMAT or LSAT)**. Submit standardized test scores from one of the following Graduate Exams:
    - Graduate Record Examination (GRE)
    - Graduate Management Admission Test (GMAT)
    - Law School Admissions Council Exam (LSAT)

Exemptions to the Graduate Exam requirement

The requirement that applicants submit GRE, GMAT, or LSAT scores will be waived under the following circumstances:

Expedited Admission based on Undergraduate GPA: The applicant who earned a bachelor's degree from an accredited college or university in West Virginia and achieved a cumulative GPA of 3.4 or higher are eligible to waive the GRE/GMAT/LSAT requirement to apply for the program. Please note in your letter of intent that you are applying for an expedited admissions.

Evidence of Graduate Level Competence: Applicants who already hold a graduate degree or have successfully completed at least 18 semester hours in another accredited graduate program, may request a waiver of the GRE/GMAT/LSAT requirement. Please state in your letter of intent that you are requesting a waiver based on graduate level competence.

Significant Managerial Administrative Experience: Applicants with at least 5 years of managerial administrative experience after completing their undergraduate degree may request a waiver of the GRE/GMAT/LSAT requirement by providing a letter of intent about their verbal/written competency and quantitative competency. The letter of intent should provide specific examples of their ability to write effectively, analyze complex situations, and complete quantitative analysis.

Application Deadline

The MPA program accepts students for both Fall and Spring admission. The deadline for all application materials for Fall admission is April 1. Applicants will be notified of the committee's decision around April 15. The deadline for all application materials for Spring admission is October 15.

Applicants for the spring term will be notified around October 31. Applications for admission may be considered after these deadlines on a space-available basis. Incomplete applications will not be considered.

For further information, please contact:

Department of Public Administration
P.O. Box 6322
Morgantown, WV 26506
Debbie.Koon@mail.wvu.edu (dkoon@wvu.edu)
(304) 293-2614
or publicadmin.wvu.edu

GENERAL REQUIREMENTS

The MPA degree requires the completion of forty-five (45) credit hours in the following courses:

Master of Public Administration

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Minimum grade of C is required in all required courses.		
Integrative Seminar		3
PUBA 600	Scope and Practice	
Foundation Courses		12
PUBA 610	Public Management Theory and Practice	
PUBA 620	Public Financial Management	
PUBA 630	Research Methods	
PUBA 640	Legal and Political Foundations	
Advanced Courses		9
PUBA 720	Public Budgeting	
PUBA 730	Applied Research in Public Administration	
PUBA 741	Human Resources Systems	
Elective Courses [*]		12
Internship		6
PUBA 751	Public Service Internship	
Integrative Capstone		3
PUBA 700	Capstone Seminar	
Total Hours		**45**

[*]   Concentrations using electives from Public Administration and other fields as developed with your advisor.

Degree Completion

It usually takes four semesters for full-time students to complete the M.P.A. degree. Students are required to complete 6 credit hours of internship experience. For those individuals who have had substantial public service experience, internship credit can be awarded.

Healthcare Administration Area of Emphasis

The Public Administration Department offers a healthcare administration area of emphasis for students who are interested in a career in a variety of healthcare settings, including hospitals, health departments, nursing homes, mental health services, home health services, nonprofit voluntary agencies, health research foundations, public and private insurance, and a variety of governmental agencies.

HEALTHCARE ADMINISTRATION AREA OF EMPHASIS REQUIREMENTS

Required Courses		9
PUBA 670	Health Systems	
PUBA 671	Healthcare Organization and Operation	
PUBA 672	Healthcare Finance	
Healthcare Electives		3
See electives listed on web page		

Capstone Experience		3
PUBA 780	Healthcare Administration Practicum (or equivalent capstone course approved by the Director.)	
Total Hours		**15**

Students who desire to specialize in this area as part of their MPA degree take elective courses offered in healthcare administration. A certificate program is also available for students who are just interested in the healthcare specialization as a non-degree seeking student. For more information, please consult: http://publicadmin.wvu.edu/.

Local Governance and Community Development Area of Emphasis

Counties and municipalities are the levels of government most directly involved in community and economic development. Localities are where we live, learn, work, and recreate. These and other local governments, like school districts and public utilities, comprise the largest sector of public employment in the United States. In fact, employment in local government has even been growing while it declines at other levels of government. Adding to this sub-sector the many nonprofit organizations that engage in community and economic development, the opportunities for employment in this field of public service abound.

LOCAL GOVERNANCE AND COMMUNITY DEVELOPMENT AREA OF EMPHASIS REQUIREMENTS

PUBA 650	Local Governance	3
PUBA 655	Public Engagement (or an approved elective)	3
PUBA 750	Public Planning	3
or PUBA 645	Public Administration and Policy Development	
PUBA 755	Sustainable Community Development	3
Total Hours		**12**

Healthcare Administration Certificate

The Public Administration Department offers a healthcare administration certificate for students who are interested in a career in a variety of healthcare settings, including hospitals, health departments, nursing homes, mental health services, home health services, nonprofit voluntary agencies, health research foundations, public and private insurance, and a variety of governmental agencies. The certificate program is available for students interested in pursuing the program as a degree-seeking student or a non-degree seeking students. For more information, please consult: http://publicadmin.wvu.edu/.

CERTIFICATE REQUIREMENTS

Required Courses		
PUBA 670	Health Systems	3
PUBA 671	Healthcare Organization and Operation	3
PUBA 672	Healthcare Finance	3
Healthcare Electives		
See electives listed on web page		3
Capstone Experience		
PUBA 780	Healthcare Administration Practicum (or equivalent capstone course approved by the Director.)	3
Total Hours		**15**

Social Work

Degree offered

- Master of Social Work

Nature of the Program

The mission of the M.S.W. Social Work Program at West Virginia University is to train graduate students in advanced social work practice either with individuals, families, and groups or in community organizing and social administration. The focus of this training is to produce competent and effective practitioners committed to enhancing social well-being and quality of life with particular emphasis on vulnerable and oppressed populations in small towns and rural areas characteristic of the Appalachian region.

All M.S.W. students complete coursework in social work practice, social welfare policy, human behavior and the social environment, social work research, and field instruction. In addition, students select a practice track—direct practice or community organizing and social administration.

Direct practice students gain the knowledge and skills to provide direct and clinical services to individuals, families, and small treatment groups. Community organizing and social administration students gain knowledge and skills to provide leadership to communities in the development, administration, and support of service programs.

Students have the opportunity to complete their field internships with agencies throughout West Virginia and adjacent areas. In addition, a dual degree option is offered in conjunction with the Department of Public Administration. Graduate certificates are available in the areas of gerontology and non-profit management (http://grad.wvu.edu/). All degree programs offered by the university are accredited by the Council on Social Work Education.

The School of Social Work supports both full-time and part-time graduate study at the campus in Morgantown and part-time graduate study at several extended campus sites, including Charleston, Beckley, Keyser, Wheeling, and Martinsburg. Regular-standing students—those with degrees in areas other than social work or those with social work degrees who do not meet the criteria for advanced-standing status—begin the program in fall semesters. It takes two years to complete the program on a full-time basis (including two summer sessions between the first and second years of the program) and three years to complete the program on a part-time basis (including summer sessions). Full-time advanced standing students (those with a qualifying B.S.W. degree) begin the program in January and complete the program in sixteen months. Part-time advanced-standing students begin in the fall semester and finish in just under two years.

Applicants to the M.S.W. program come from a variety of academic disciplines and have varying degrees of experience in the field of social work. Students interested in applying should consult the website: http://socialwork.wvu.edu or contact:

M.S.W. Admissions
School of Social Work
West Virginia University
P.O. Box 6830
Morgantown, WV 26506-6830

Phone: (304) 293-3501

Application information is also available on our website: http://socialwork.wvu.edu.

Career Opportunities

Graduates of the M.S.W. program are employed throughout the United States and internationally. They work as individual, family, and group treatment specialists, planners, community organizers, and social researchers. They also work as social work educators and as administrators in a variety of programs such as mental health clinics, hospitals, correctional institutions, courts, delinquency programs, aging programs, family counseling agencies, child protective agencies, public welfare departments, child development programs, drug and alcohol abuse programs, public schools, community action agencies, settlement houses, city governments, state government planning agencies, federal administrative agencies, and private research and development organizations concerned with human problems.

There has been a constant growth in the need for professional social workers. It is anticipated by the Bureau of Labor Statistics and other research bodies that the employment demand for social workers will continue to increase in numbers and in varieties of programs. The WVU social work curriculum is designed to help students prepare for these careers.

FACULTY
DIRECTOR
- Elise Fullmer - Ph.D. (University at Albany, The State University of New York)

PROFESSORS
- Karen V. Harper-Dorton - Ph.D. (Ohio State University)
  Professor and Chair, Title IV-E Project in Child Welfare, Rural Social Work, Social Administration
- Leslie Tower - Ph.D. (Barry University)
  Domestic Violence, Women's Issues, Health Care Administration
- Michael Zakour - Ph.D. (Washington University)
  Associate Director of the Nova Institute, Organizations and Communities, Non-profit Management, Disaster Response

ASSOCIATE PROFESSOR
- Helen P. Hartnett - Ph.D. (Ohio State University)
  M.S.W. Director, Communities and Organizations, Homelessness
- Kristina Hash - Ph.D. (Viginia Commonwealth University)
  Aging, Family Care Giving, Gay and Lesbian Issues
- Neal Newfield - Ph.D. (Texas Tech University)
  Strategic Therapy, Hypnosis, Solution-focused Therapy, Social Documentary Photography

- Carrie Rishel - Ph.D. (University of Pittsburgh)
  Child Mental Health, Program Evaluation

ASSISTANT PROFESSOR

- HaeJung Kim - Ph.D. (University of Maryland)
  Non-profit Management, Social Policy
- Mariann Mankowski - PhD, Smith College
  Military Issues, Women's Issues, Aging
- JiYoung Tabone - PhD, University of Chicago
  Risk and Resilience, Program Evaluation

CLINICAL ASSOCIATE PROFESSOR

- Patricia Chase - Ed.D (West Virginia University)
  Child Welfare
- Linda Ferrise - M.S.W. (West Virginia University)
  Baccalaureate Program Director, Clinical Practice, Community Mental Health

SENIOR LECTURER

- Eveldora Wheeler - M.S.W. (University of Pittsburgh)
  Management, Training, Deliberation and Dialogue

INSTRUCTORS AND FACULTY EQUIVALENTS

- Carol Amendola - M.S.W. (West Virginia University), L.C.S.W.
  B.S.W. Program Coordinator, Clinical Practice, Child Welfare
- Jacqueline Englehardt - M.S.W. (West Virginia University), L.C.S.W.
  Professional and Community Education. Non-profit Management
- Rhonda Hayes - M.S.W. (West Virginia University)
  Wheeling M.S.W. Coordinator, Clinical Practice, Teaching Instructor
- Samuel J. Leizear - M.S.W. (West Virginia University), L.C.S.W.
  Field Education Coordinator, Human Diversity, Health Care and Aging, LGBT Issues
- Alysha Nichols - M.S.W./M.P.A. (West Virginia University)
  Teaching Instructor
- Erica Shell - M.S.W. (West Virginia University)
  Martinsburg M.S.W. Coordinator, Spirituality, Mental Health, Poverty Issues
- Debra Young - Ed.D (Marshall University)
  Charleston M.S.W. Coordinator, Community Organization and Social Administration

RESEARCH ASSOCIATE

- Rebekah Bledsoe - M.S.W. (West Virginia University)
  Title IV-E, Child Welfare

EMERITUS FACULTY

- Marjorie H. Buckholz-Cleveland - Ph.D. (West Virginia University)
- Barry Locke - Ed.D (West Virginia University)
- Roger A. Lohmann - Ph.D. (Brandeis University)
- Nancy Lohmann - Ph.D. (Brandeis University)
- Caroline T. Mudd - M.S.W. (University of Pennyslavania)

M.S.W. ADMISSION PROCESS

The School of Social Work has adopted an online application process. Please carefully read and follow all instructions as outlined.

APPLICATION DEADLINES

Please remember that all required materials must be received and processed by the following deadline dates. Keep in mind transcripts, references, and test scores often take longer than anticipated to arrive.
March 1 is the priority deadline. Applications submitted by March 1 will be given preference for graduate assistantships and scholarships.
April 1 is the standard deadline. All applications must be submitted by April 1 for consideration.

May 1 is the late application deadline. All applications must be submitted by May 1, and late application acceptance is based upon available space.

Requirements

Note: Materials marked with an ' * ' must be uploaded/submitted at http://grad.wvu.edu/apply in the Supplemental Material section.

COLLEGE PREP

- Bachelor's degree from an accredited college or university

PREREQUISITE COURSES

- Successful completion of thirty hours of courses in the liberal arts, including the social, behavioral, and biological sciences
- Evidence of study related to diverse cultures, social conditions, social problems, and individual lifespan

ADVANCED-STANDING

Applicants who have received a B.S.W. from a Council on Social Work Education-accredited program within the last eight years may apply for advanced-standing. Advanced-standing enables the baccalaureate-holding social worker to move directly to the program's advanced curriculum, waiving twelve credits of foundation-level courses as well as the foundation field experience.
The School of Social Work does not give academic credit for work or life-experience.

GRADE POINT AVERAGE

- At least a 3.0 overall GPA
- A 3.0 or higher GPA for advanced-standing applicants in their undergraduate social work courses

APPLICATION AND APPLICATION FEE*

- Complete the combined WVU Graduate/School of Social Work application
- $60 application fee

TRANSCRIPTS

- Submit official transcripts to the WVU Office of Graduate Admissions at P.O. Box 6009, Morgantown, WV 26506

RESUME*:

- Submit a current resume including employment and volunteer experience

LETTERS OF RECOMMENDATION*

Three letters of recommendation are required. Contact information for these individuals should be provided within the online Graduate Application. Please submit a recommendation from each of the following categories:

- Academic
- Social Work/Human Service Experience (volunteer or paid)
- Employer

Advanced-standing applicants must submit a supporting recommendation from the director of their undergraduate program.

TESTING

Applicants with an undergraduate GPA above 3.0 do not have to take the General Requirements Examination (GRE).
Applicants whose undergraduate GPA is below 3.0 must take the GRE. Official copies of test scores must be sent directly from Educational Testing Services (ETS) to WVU. Our Institution code is 5904.

International Students whose first language is not English must take the Test Of English as a Foreign Language (TOEFL). The GRE is also required if GPA is below 3.0.

ADMISSION ESSAY*:

All applicants must submit an Admission Essay. Please read the detailed description below.

Admission Essay Guidelines

This essay is one essential part of the student's admission application. This is the student's opportunity to communicate with the Graduate Program Committee members about their professional goals. Before submitting, make certain that the essay gives the reader a clear picture of your personal interests, experiences, and professional objectives. Once complete, please upload the Admissions Essay to your online application under the "Personal Statement" tab.

The Admission Essay must address each of the following:

HUMAN SERVICES AND COMMUNITY WORK

Please discuss any volunteer or paid experiences in human services, community work, and/or other experiences that contributed to your choice of social work as a profession. The Program Committee is looking for evidence of some leadership ability, experience, or interest in working with diverse populations or oppressed groups; commitment to social and economic justice; and other interests congruent with WVU's School of Social Work mission and social work practice in a rural setting.

PROFESSIONAL ETHICS

The NASW Code of Ethics includes the following statement:

"Social workers treat each person in a caring and respectful fashion, mindful of individual differences and cultural and ethnic diversity. Social workers promote clients' socially responsible self-determination. Social workers seek to enhance a client's capacity and opportunity to change and to address their own needs. Social workers are cognizant of their dual responsibility to clients and to the broader society. They seek to resolve conflicts between client's interests and the broader society's interests in a socially responsible manner consistent with the values, ethical principles, and ethical standards of the profession."

Using a specific experience you have had with someone/some group different than you (in terms of race, socioeconomic background, gender, religion, sexual orientation, culture, age, etc.), discuss what challenges you had and what lessons you learned from this. How did the interaction affect your personal views about this individual/group? How will you reconcile any conflicts between your personal values and the requirement of the profession?

SOCIAL WORK PRACTICE

Please describe an aspect of social work that interests you most and explain how you became interested in this issue. Identify how you think social work, as a profession, should respond to this issue. Feel free to describe a response at the policy, program, or practice levels of social work.

ADDENDUM

If necessary, applicants should submit an addendum that addresses any gaps or deficiencies in their academic record, including incomplete grades, withdrawals from courses, etc.

ADVANCED-STANDING APPLICANTS MUST ALSO ADDRESS:

Please choose a practice example on individuals, group, family, or organization and describe it, disguising names and identifying information. Please introduce the example with a brief paragraph describing the agency, its function, and its purpose. Please limit your response to 500 words.

Your description headings should include the following:

Assessment – A summary of the essential case data, including age, ethnicity, race, presenting problem, history of the problem, coping abilities. (If the assessment is based on a group or organization, describe the type of group/organization, membership makeup, and purpose.)

Case Plan – Describe the plan and how it relates to the assessment evaluation.

Interventions – Describe and analyze your practice interventions and how they are related to the case plan or assessment formulation.

Evaluation – Critically analyze the strength and limitations of your intervention. With hindsight, how might you have intervened differently and why?

Admission Essay Guidelines have been compiled and adapted from the following institutions: University of Maine, UNC-Chapel Hill, University of Maryland at Baltimore, and the University of Michigan.

Dual M.S.W/M.P.A.

A dual degree option resulting in the master of social work (M.S.W.) and master of public administration (M.P.A.) is available through the School of Social Work and the Division of Public Administration. For a student admitted to the regular M.S.W. program, a total of eighty-two credit hours are required to meet the dual degree requirements. For a student admitted to the advanced standing M.S.W. program, a total of sixty-nine credit hours are required to meet dual degree requirements. Many students complete such requirements through one or more additional semesters of study beyond the semesters required for the M.S.W. degree.

Applicants must meet the admission requirements of each program. Acceptance by one program does not guarantee acceptance by the other. Additional information and descriptive materials about the dual degree program are available from either of the following:

M.S.W. Admissions
School of Social Work
West Virginia University

P.O. Box 6830
Morgantown, WV 26506-6830

or

Division of Public Administration
West Virginia University
P.O. Box 6322
Morgantown, WV 26506-6322

Master of Social Work

MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

SOWK 682	Advanced Field Experience	12
Electives		12
Complete either the Regular Standing or Advanced Standing Requirements:		18-34
Regular Standing Requirements (34 hours)		
SOWK 513	Social Work Research Methods	
SOWK 520	Human Behavior in the Social Environment	
SOWK 531	Social Welfare Policy and Services	
SOWK 540	Generalist Social Work Practice	
SOWK 581	Generalist Field Experience	
SOWK 621	Human Behavior/Diversity and Social Justice	
SOWK 633	Social Policy Analysis	
Area of Emphasis Requirement (12 hours)		
Advanced Standing Requirements (18 hours)		
SOWK 513	Social Work Research Methods	
SOWK 520	Human Behavior in the Social Environment	
SOWK 531	Social Welfare Policy and Services	
SOWK 540	Generalist Social Work Practice	
SOWK 621	Human Behavior/Diversity and Social Justice	
SOWK 633	Social Policy Analysis	
Total Hours		**42-58**

DIRECT PRACTICE AREA OF EMPHASIS

SOWK 618	Personal Practice Assessment	3
SOWK 643	Psychopathology and Social Work Practice	3
SOWK 649	Advanced Practice with Individuals and Families	3
SOWK 650	Families and Groups	3
Total Hours		**12**

COMMUNITY ORGANIZING & SOCIAL ADMINISTRATION AREA OF EMPHASIS

SOWK 616	Evaluation Research in Social Work	3
SOWK 651	Community Organization Theory and Practice	3
SOWK 654	Social Agency and Program Administration	3
SOWK 656	Non-profit Financial Management	3
Total Hours		**12**

DUAL M.S.W/M.P.A.

A dual degree option resulting in the master of social work (M.S.W.) and master of public administration (M.P.A.) is available through the School of Social Work and the Division of Public Administration. For a student admitted to the regular M.S.W. program, a total of eighty-two credit hours are required to meet the dual degree requirements. For a student admitted to the advanced standing M.S.W. program, a total of sixty-nine credit hours are

required to meet dual degree requirements. Many students complete such requirements through one or more additional semesters of study beyond the semesters required for the M.S.W. degree. Applicants must meet the admission requirements of each program.

Graduate Certificate in Gerontology

The Graduate Certificate in Gerontology is available to students who meet WVU graduate admission requirements and have an interest in learning more about the aging processes and older people. The certificate affords students an opportunity to explore the basic biological, psychological, and sociological processes of aging; the effects on needs and experiences of older people; and the impact of social policies related to human aging. An understanding of the unique problems and needs of older adults in Appalachia and other rural areas is emphasized.

- The certificate requires fifteen graduate credits as detailed below.
- A 3.0 grade-point average must be maintained in all certificate coursework.

Coordination of the Graduate Certificate in Gerontology was assumed by the Beatrice Ruth Burgess Center for WV Families and Communities of the WVU School of Social Work in Fall 2009. As Certificate requirements are reviewed, it is possible that some of them may be modified. You may want to check this site periodically or contact Dr. Kristina Hash, Director of the Gerontology Certificate Program, for the latest information about program requirements.

Students must apply to be enrolled in the certificate program. An application form (http://socialwork.wvu.edu/certificate-programs/graduate-certificate-in-gerontology) is available on this website or may be obtained from Dr. Hash who may be contacted at (304) 293-8807.

Those interested in the Gerontology Certificate may also want to explore the Summer Institute on Aging (http://socialwork.wvu.edu/continuing-education/west-virginia-summer-institute-on-aging).

Curriuculum Requirements for Gerontology Certificate Program are as follows:

A grade of B or better must be earned in all required courses

Required Courses		9
GERO 512	Public Policy of Aging	
GERO 681	Rural Gerontology	
GERO 628	Aging Women & Cultural Issues	3
GERO 695	Independent Study	1-6
PHAR 751	Geriatrics	2
Electives (Select two)		6
SOWK 653	End of Life Care	
SOWK 572	Contemporary Issues in Aging	
GERO 645	Fundamentals of Gerontology	
PHAR 754	Decision Analysis in Healthcare	
Total Hours		**21-26**

For further information, please consult the School of Social Work's website, http://socialwork.wvu.edu/certificates, or contact Dr. Kris Hash at KMHash@mail.wvu.edu.

Graduate Certificate in Integrated Mental and Behavioral Health
ADMISSION AND PERFORMANCE STANDARDS

The goal of the program is to train students to become effective mental and behavioral health care providers. To be admitted to the Certificate program, applicants must demonstrate graduate student status at West Virginia University (either degree or non-degree) and be in good standing. The requirements for participation in the required Capstone course also impact admission criteria. The capstone course requires students to complete an individualized project that applies content learned in the certificate program to their target population of focus. In order to complete this capstone course, students must have access to field placement, clinical practicum, internship, or employment setting in which they have the ability for "hands-on" practice with the target population. Applicants will be asked to explain and document their anticipated access to this type of experience at the time they would be completing the capstone course. To continue their progress in the Certificate program, students must maintain a grade of "B" or higher in certificate coursework.

PROGRAM REQUIREMENTS:

The Graduate Certificate in Integrated Mental and Behavioral Health will consist of 15 credit hour:

SOWK 649	Advanced Practice with Individuals and Families	3
SOWK 650	Families and Groups	3
SOWK 626	Child Mental Health	3

Select one of the following:		3
SOWK 644	Brief Therapy	
SOWK 675	Substance Abuse	
SOWK 641	Social Work with Groups	
SOWK 658	Social Work with Veterans	
SOWK 678	Family Victimology	
SOWK Course Advanced Practice in Integrated Healthcare (still to be developed)		3
Total Hours		**15**

Graduate Certificate in Non-profit Management

The School of Social Work, in cooperation with the other units of the School of Applied Social Sciences, offers a fifteen-hour graduate Non-profit Management Certificate Program. The program consists of two required three-hour courses, six hours of electives, and a three-hour capstone project.

REQUIRED COURSES

All students must enroll in SOWK 654 and SOWK 655.

ELECTIVES

Students enrolled in the certificate may choose a wide variety of electives, including appropriate courses in their field of study, employment, volunteer history, or other interests. In the past, certificate students have elected courses in public administration, social work, sociology, political science, geography, agriculture, journalism, and other disciplines.

Please consult the School of Social Work's website (http://socialwork.wvu.edu/certificate-programs/graduate-certificate-in-nonprofit-management) for more information:.

CAPSTONE

Upon completion of the required and elective coursework, each student is required to do an individual capstone project in order to complete the certificate requirements. Students in public administration typically do their non-profit capstone requirement concurrently with a similar departmental requirement there. Dual-degree and social work students frequently develop their capstone projects in conjunction with their field placements.

Candidates for the graduate certificates must meet regular WVU graduate admission requirements. Program participants must maintain a minimum grade point average of 3.0 in certificate coursework.

For more information on the Graduate Certificate in Non-profit Management, please contact Dr. Helen Hartnett at helen.hartnett @mail.wvu.edu or by calling (304) 293-8808.

School of Social Work
105 Knapp Hall
P.O. Box 6830
West Virginia University
Morgantown, WV 26506-6830
(304) 293-3501

Field Instruction

Field instruction provides the student with an opportunity to test classroom knowledge as well as to develop and refine advanced-practice skills. Field instruction opportunities are available throughout West Virginia and adjacent areas as well as in a select number of settings outside the region.

Full-time regular-standing M.S.W. students have a generalist field experience during the second semester of study. Advanced-field placement is typically completed on a concurrent plan requiring sixteen–twenty-four hours of field instruction activity each week throughout the second year of study according to degree plans.

Students are required to take at least three credits of classroom coursework concurrently with the advanced field placement and to complete assignments designed to facilitate the integration of field and classroom study. Decisions regarding the field placement assignment are jointly reached by the student, faculty advisor,and field instruction coordinator. Only sites on the School of Social Work's list of approved agencies may be used for field instruction.

Grade Point Average (GPA) Requirements for Good Standing

All graduate courses must be completed with a grade of B or better; students may repeat any course for which the final grade is less than B one time only. Students are required to maintain an overall minimum GPA of 3.00 (on a four-point scale) to continue in the program, to be eligible for field instruction, and to be eligible for graduation.

Required Course Credits		30
Generalist Field Credits		4
SOWK 581	Generalist Field Experience	
Advanced Field Credits		12
SOWK 682	Advanced Field Experience	
Electives Credits		12
Total Hours		**58**

Required Course Credits		18
Advanced Field Credits		12
SOWK 682	Advanced Field Experience	
Electives Credits		12
Total Hours		**42**

Sociology and Anthropology

Degree Offered

- Master of Arts

Nature of the Program

The Department of Sociology and Anthropology offers a master of arts degree in sociology. The program trains students in the core areas of sociology, including research design, quantitative and qualitative methods, data analysis, theory, and sociological writing. It also teaches a range of professional skills designed to help graduates enter the academic or non-academic job markets. Emphasis is placed on writing and presentation skills, knowledge of statistical software, teaching ability, expertise in program evaluation, and the ability to communicate and apply sociological theory. Graduates of the program have entered Ph.D programs and have taken positions in universities, government, community agencies, and private industry.

Employers value our graduates' technical skills, understanding of the research process, and overview of the interaction between research, planning, and policy. Many of our graduates are soon promoted to positions as project directors, managers, and supervisors. As a consequence, our network for placing graduates is ever-expanding.

In addition to instruction of technical skills, faculty furnish an overview of the relationship between policy and research and provide expertise in a broad range of substantive areas, including economic development in Appalachia; gender, racial and ethnic studies; sociology of education and work; the criminal justice system; health care delivery; injury prevention; community and organizational development; and conflict analysis and resolution. In addition to coursework, students will have an opportunity to work with faculty who are actively engaged in research in the areas previously mentioned. It is not uncommon to have students work with faculty on research that is presented at local, regional, and national professional meetings; published in professional journals; and presented to development agencies and legislative bodies.

FACULTY

CHAIR

- Jeralynn S. Cossman - Ph.D. (Florida State University) Sociology
  Demography, Health, Inequalities

PROFESSORS

- Walter S. DeKeseredy - Ph.D. (York University) Sociology
  Anna Deane Carlson Endowed Chair of Social Sciences. Violence against women, Critical criminology, Masculinities and crime, Criminology theory
- S. Melissa Latimer - Ph.D. (University of Kentucky) Sociology
  Gender/race/ethnicity, Inequality/labor markets/welfare systems
- Lawrence T. Nichols - Ph.D. (Boston College) Sociology
  Criminology, Theory, Business

ASSOCIATE PROFESSORS

- Corey Colyer - Ph.D. (Syracuse University) Sociology
  People processing systems, Agencies of social control
- Amy Hirshman - Ph.D. (Michigan State University) Anthropology
  Mesoamerican archaeology, Social complexity, Ceramics
- James Nolan, III - Ph.D, (Temple University) Sociology
  Criminal justice, Group and social processes
- Daniel Renfrew - Ph.D. (Binghamton University) Anthropology
  Environmental and political anthropology, Social movements, Latin American cultures
- Rachel Stein - Ph.D. (University of Akron) Sociology
  Criminology, Victimization, Media and crime
- Karen Weiss - Ph.D. (SUNY-Stony Brook) Sociology
  Criminology, Victimization, Gender/sexuality/culture
- Rachael A. Woldoff - Ph.D. (Ohio State University) Sociology
  Community, Crime, Inequality/race/class
- Joshua Woods - Ph.D. (Michigan State University) Sociology
  Social psychology, Media, Complex organizations, Sociology of risk

CLINICAL ASSOCIATE PROFESSOR

- Jennifer Steele - Ph.D. (Pennsylvania State University) Rural Sociology
  Natural resource sociology, Rural and community development

ASSISTANT PROFESSORS

- Katie E. Corcoran - Ph.D. (University of Washington) Sociology
  Theory, Organizations, Culture, Criminology, Religion, Social networks
- Lisa M. Dilks - Ph.D. (University of South Carolina) Sociology
  Social psychology, Group processes, Law and society, Quantitative methods
- Jason Manning - Ph.D. (University of Virginia) Sociology
  Conflict and social control, Violence, Sociology of knowledge
- Christopher P. Scheitle - Ph.D. (Pennsylvania State University) Sociology
  Religion, Science in society, Crime, Organizations
- Jesse Wozniak - Ph.D. (University of Minnesota) Sociology
  Policing, Criminology, Deviance, State power

TEACHING ASSISTANT PROFESSORS

- Adam Dasari - Ph.D. (Oklahoma State University) Sociology
  Social stratification, Globalization, Environmental sociology, Theory
- Susanna Donaldson - Ph.D. (University of Iowa) Anthropology
  Anthropology of work, Identity, Appalachian cultures
- Cheryl Johnson-Lyons - J.D. (West Virginia University)
  Law and society, Inequalities, Political sociology

PROFESSOR EMERITUS

- Ronald C. Althouse - Ph.D. (University of Minnesota) Sociology
  Theory, Work, Occupational safety and health

ASSOCIATE PROFESSORS EMERITI

- Ann L. Paterson - Ph.D. (Michigan State University) Sociology
- Patricia C. Rice - M.A. (Ohio State University) Anthropology
- Joseph J. Simoni - Ph.D. (University of Notre Dame) Sociology
- William I. Torry - Ph.D. (Columbia University) Anthropology

Admission

Applicants for admission to graduate study must have a bachelor's degree from an accredited institution. Applicants must submit a university graduate application and have their college or university transcripts sent directly to the WVU Office of Admissions. Candidates should also submit three completed recommendation forms from former professors, supervisors, or employers. Applicants should submit a written statement of purpose outlining graduate study goals and plans (career plans, research experience, and any special circumstances), a short sample of academic writing, and scores for the Graduate Record Examination (GRE). Foreign students for whom English is not the native language are required by the university to submit Test of

English as a Foreign Language (TOEFL) scores (a minimum score of 550 is required) and may be required to participate in the university's language orientation sessions.

Application Deadline

The application process should be completed by March 1 for admission to the fall semester. Students seeking financial assistance must request and submit a separate application form furnished by the Department of Sociology and Anthropology.

Remediation

Students with deficient background in sociological theory, methods, or statistics may be required to do remedial work. Full-time students who are admitted as special provisional students are required to complete twelve hours of approved coursework with a B average or better within a year; students who fail to do so are suspended. The department's Graduate Committee assesses all students and determines who will be permitted to continue in the program, with or without assistance. Normally, assistance is for no more than two years.

MASTER OF ARTS
MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

SOCA 517	Data Analysis	3
SOCA 518	Data Analysis	3
SOCA 522	Contemporary Sociological Theory	3
SOCA 620	Sociological Research Methods	3
SOCA 694	Seminar	3
SOCA 691	Advanced Topics	3
SOCA 693	Special Topics	3
Electives *		6
SOCA 698	Thesis or Dissertation	6
SOCA 721	Qualitative Methods	3
Total Hours		**36**

* The student, in consultation with his or her program committee, chooses electives either within the department or elsewhere in the university as a basis for gaining expertise in some specific area of concentration.

Statistics

Degrees Offered

- Master of Science

Nature of the Program

The Department of Statistics offers a Master of Science (M.S.) in Statistics.   The department also offers a Certificate in Applied Statistics (C.A.S.). The M.S. degree is intended to qualify the student to assume a professional role in educational, industrial, or governmental research projects; to teach in a college; or to undertake advanced training toward a doctorate in statistics or one of the quantitative fields of science.

Because many students receive baccalaureate degrees from colleges that do not offer undergraduate programs in statistics, and because historically statistics has been primarily a field of graduate education, a student does not need a degree in statistics to enter the degree programs in statistics. A good background in mathematics, science, or engineering is reasonable preparation for graduate work in statistics.

The Department of Statistics also participates in the Combinatorial Computing and Discrete Mathematics (CCDM) Area of Emphasis within the Computer and Information Science Ph.D. Program or the Mathematics Ph.D. Program.

FACULTY

CHAIR

- Michael Mays - Ph.D. (Penn State University)

PROFESSORS

- E. James Harner - Ph.D. (Cornell U.)
  Dynamic graphics, Statistical computing and modeling, Statistical education.

- Erdogan Gunel - Ph.D. (State University of New York, Buffalo)
  Bayesian Inference, Biostatistics, Categorical Data Analysis
- Robert Mnatsakanov - Ph.D. (Moscow State Institute of Electronics and Mathematics)
  Nonparametric statistics, Statistical Inverse Problems, Mixture Models, Change-set Problems

ASSOCIATE PROFESSORS

- Mark V. Culp - Ph.D. (University of Michigan)
  Statistical Machine Learning, Computational Statistics, Semi-supervised and Multi-view Learning, Biometrics
- Gerald R. Hobbs Jr. - Ph.D. (Kansas State University)
  Biostatistics, Nonparametric Statistics, Regression Analysis
- Kenneth J. Ryan - Ph.D. (Iowa State University)
  Experimental Design, Statistical Machine Learning, Biometrics

ASSISTANT PROFESSORS

- Yanqing Hu - Ph.D. (University of Virginia)
  Design of Clinical Trials, Adaptive Designs, Nonparametric Statistics, Bioinformatics
- Erin R. Leatherman - Ph.D. (Ohio State)
  Prediction and Design for Computer and Physical Experiments.

TEACHING ASSOCIATE PROFESSOR

- Huey Miin Lee - Ph.D. (Johns Hopkins University)
  Bioinformatics, Statistical Education

TEACHING ASSISTANT PROFESSOR

- JeanMarie Hendrickson - Ph.D. (University of South Carolina)
  Cluster analysis, Multivariate data analysis, Statistical computing and education

TEACHING INSTRUCTOR

- Anthony Billings - M.S. (West Virginia University, A.B.D. (Carnegie Mellon University)
  Statistical Computing, Statistical Modeling, Robust Estimation, Nonlinear Dynamic Systems, Statistical Education

PROFESSOR EMERITUS

- William V. Thayne - Ph.D. (University of Illinois)
  Experimental Design, Statistical Genetics, Regression Analysis
- Edwin C. Townsend - Ph.D. (Cornell University)
  Experimental Design, Regression Analysis

ASSOCIATE PROFESSOR EMERITUS

- Daniel M. Chilko - M.S. (Rutgers University)
  Statistical Computing, Computer Graphics

ADMISSIONS AND PREREQUISITES FOR MASTER OF SCIENCE IN STATISTICS

Students are expected to know the material contained in the following courses or areas upon admission to the program. Otherwise, these deficiencies must be removed as early as possible in the student's degree program under the terms specified by the Admissions and Standards Committee.

- Single and multivariable calculus (MATH 155, MATH 156, MATH 251, or equivalent)
- Linear or matrix algebra (MATH 441 or equivalent)
- Probability and statistics (STAT 215 or equivalent)
- Knowledge of a high-level programming language

ADMISSIONS AND PREREQUISITES FOR THE CERTIFICATE IN APPLIED STATISTICS

Students can apply for the Certificate in Applied Statistics during the time, or prior to the time, they are taking STAT 511 or STAT 512. Students who have taken courses beyond these two basic courses can petition the Academic Standards Committee for acceptance into the program.

The prerequisite for admission is a college algebra course. Single and multi-variable calculus are recommended but not required for admission. However, certain elective courses have calculus prerequisites. Applicants must have a baccalaureate degree.

Beyond the above mathematical entrance requirements, the Admissions and Standards Committee will base admission on the following material submitted by the applicant:

- Resume or curriculum vitae

- Transcript

The GRE General Test is not required for admission.

To obtain a Master of Science in Statistics, the student must complete the course and comprehensive examination requirements. The student must maintain a minimum GPA of 3.0 and earn a grade of C or better in all courses counting toward the degree.

Master of Science
MAJOR REQUIREMENTS

Minimum GPA of 3.0 is required.

Minimum grade of C or higher is required in all courses applied toward the degree.		
STAT 512	Statistical Methods 2	3
STAT 513	Design of Experiments	3
STAT 545	Applied Regression Analysis	3
STAT 555	Categorical Data Analysis	3
STAT 561	Theory of Statistics 1	3
STAT 562	Theory of Statistics 2	3
STAT 582	Statistical Consulting	1
STAT 590	Teaching Practicum	1
STAT 696	Graduate Seminar	1
Electives (500, 600, 700-level STAT courses) [*]		6
Select either the non-thesis or thesis option		6
Non-Thesis Option:		
Electives [*]		
Thesis Option:		
STAT 697	Research	
Thesis		
Thesis Defense		
Comprehensive Examination		
Total Hours		**33**

[*]   Non-STAT electives require departmental consent.

** Credit towards the degree requirement is not given for STAT 511 Statistical Methods 1.

EXAMINATIONS

Students must pass a written comprehensive examination on foundational material. The examination covers the theory taught in STAT 561 and STAT 562 and the applications taught in STAT 512, STAT 513, and STAT 545. The exam is given twice a year on the Thursday during the second full week following spring semester final exams and on the third Saturday in October.

Certificate in Applied Statistics

The Certificate in Applied Statistics (C.A.S.) can be earned through traditional classroom delivery as well as distance-based delivery. Many of the courses are offered both on-campus and online, including the required courses and the SAS and Data Science tracks.

The C.A.S. is designed for professionals or students who want applied statistics and data science courses to enhance their job opportunities and quantitative skills. If prerequisite requirements are met, theoretical courses in statistics are available as an option. This certificate program is designed for both on and off-campus delivery.
This certificate program will provide students with a solid foundation in statistical methods, predictive analytics, statistical computing, and data technologies. This program will enhance the quantitative skills of professionals or the research productivity of graduate students.
The C.A.S. is based on a coherent group of courses representing a specialized area of knowledge. To meet this objective each student must choose a track reflecting his or her interests. Certain tracks, e.g., the SAS, Data Science, and Modeling tracks, are offered as on and off-campus options. Other tracks are residential, although certain courses within these tracks may be offered in a distance-based format.

To maintain their status and to receive a Certificate in Applied Statistics, students must maintain at least a 3.0 GPA in courses counted towards the certificate. Students falling below a 3.0 GPA for a semester on courses counting towards this degree will be notified, and they will have one year to raise their GPA to a 3.0.

REQUIRED COURSES

Students in the certificate program must complete at least fifteen credit hours. The Certificate in Applied Statistics should represent a distinct area of study, which builds on the foundational required statistics courses. The distinct areas of study are: SAS, data science, modeling, applied statistics, and mathematical statistics. The courses required for the completion of each of these areas are defined below.

STAT 511	Statistical Methods 1	3
STAT 512	Statistical Methods 2	3
Three courses from one of the tracks listed below		9
Total Hours		**15**

TRACK OPTIONS AND COURSES

SAS TRACK:

STAT 521	Statistical Analysis System Programming	3
STAT 522	Advanced Statistical Analysis System Programming	3
STAT 540	Introduction to Exploratory Data Analysis	3

DATA SCIENCE TRACK:

STAT 523	Statistical Computing	3
STAT 623	Data Technologies	3
STAT 624	High Performance Analytics	3

MODELING TRACK:

STAT 541	Applied Multivariate Analysis	3
STAT 545	Applied Regression Analysis	3
STAT 547	Survival Analysis	3

APPLIED STATISTICS TRACK:

STAT 513	Design of Experiments	3
STAT 531	Sampling Theory and Methods	3
STAT 551	Nonparametric Statistics	3

MATHEMATICAL STATISTICS TRACK:

STAT 516	Forensic Statistics	3
STAT 561	Theory of Statistics 1	3
STAT 562	Theory of Statistics 2	3
Total Hours		**9**

CUSTOMIZED TRACK:

A student can propose a customized track to the Admissions and Standards Committee for approval based on three cohesive courses selected from 500 or 600-level courses taught by the Department of Statistics or two courses taught by the Department of Statistics and one statistics course taught by another department.

CAPSTONE EXPERIENCE

The certificate capstone will test the student's ability to apply statistical methods to a real dataset using statistical computing tools. The student is required to develop a reproducible report including a brief description of the methodologies used, the results, and the conclusions. The report is limited to ten pages. The dataset type and methods used will depend on the track the student has chosen.

The capstone experience will be administered by the student's advisor. The student will be given five days to complete the report at a date mutually agreed upon by the student and his or her advisor at or near the end of the student's coursework. The advisor will determine whether the student passes or fails based on an agreed upon rubric. A student who fails will receive written information on the reasons for failure and be given three additional days to improve his or her report to the standards required for passing.

Women's and Gender Studies

Program Description

The Graduate Certificate in Women's and Gender Studies is available to any student admitted to a graduate degree program at West Virginia University. The graduate certificate consists of fifteen hours of graduate-level work in women's and gender studies, using courses approved as primary or component courses by the Women's and Gender Studies Curriculum Committee. The certificate offers students interdisciplinary perspectives on gender and its intersection with race, class, ethnicity, and sexuality. The breadth of the curriculum provides dynamic courses in theory and methods that help students understand the complex social, cultural, economic, political, and historical dimensions of men's and women's lives.

In pursuing a Graduate Certificate in Women's and Gender Studies, students make connections between their primary field of study and issues surrounding gender, race, class, culture, and sexuality. By applying multifaceted problem solving and critical thinking skills learned in women's and gender studies courses to their primary field of study, students bring a broader base of experience and perspectives to their future careers.

Financial Aid is Available

Women's & Gender Studies students are eligible to apply for graduate teaching assistantships (GTAs) in Women's & Gender Studies. The Center for Women's & Gender Studies has five GTA positions available each year. GTAs work with the lead instructor and teach two sections of the course or assist with other courses. Students can apply for GTA positions each winter, usually in early February. Salaries include tuition waivers for the academic year and subsequent summer. GTAs must be enrolled as full-time students (at least nine hours).

For further information about GTA positions, please contact the Center for Women's & Gender Studies. Students may be eligible for GTA positions in the Academic Advising Center and should contact that center directly for more information.

FACULTY

DIRECTOR

- Jennifer E. Orlikoff - Ph.D. (Rutgers University)

ASSOCIATE PROFESSOR

- Jennifer Kasi Jackson - Ph.D. (University of Kentucky)

SENIOR LECTURER

- Brian Jara - Ph.D. ABD (Pennyslavania State University)

Graduate Certificate in Women's & Gender Studies

The Graduate Certificate in Women's and Gender Studies consists of 15 credit hours of course work that can complement any graduate degree program.

Per WVU policies, students can complete this certificate while completing the requirements for a graduate degree, as 12 of the 15 credit hours can count for both the degree and certificate.

Course Requirements (15 hours):

No more that two 400-level course may be counted toward certificate.

In lieu of an exam at the end of the graduate certificate program, students may also make a presentation in the seminar course at the end of the semester in which they take that course.

Choose one of the following:		3
WGST 694	Seminar	
WGST 530	Feminist Theory	
Choose one of the following:		3
WGST 491	Independent Study	
WGST 595	Independent Study	
WGST 795	Independent Study	
WGST Electives [*]		9
Total Hours		**15**

[*] WGST Electives from list of Approved Courses. Petitions for other courses possible

To enroll in the Graduate Certificate in Women's & Gender Studies, contact either the Center for Women's and Gender Studies at their location, 325 Willey Street, or by phone at (304) 293-2339 or contact Dr. Jennifer Orlikoff, the Director of the Center for Women's& Gender Studies, by phone at (304) 293-2063 or via e-mail at Jennifer.orlikoff@mail.wvy.edu (Jennifer.orlikoff@mail.wvu.edu) for an appointment to discuss your program.

Check in at least once a semester with the center to update your progress toward completion of the certificate.

World Languages, Literatures, and Linguistics

Degree Offered

- Master of Arts, with five possible areas of emphasis

AREAS OF EMPHASIS

- French
- Spanish
- Linguistics
- Teaching English as a Second Language (TESOL)
- Combined Areas

Nature of Program

The M.A. program in World Languages, Literatures, and Linguistics offers courses in literature, culture, and literary criticism as well as in theoretical and applied linguistics, and language-teaching methodology. Students also have the opportunity to engage in research projects that reflect their interests within a given subject and that serve to complement and augment the information imparted through in-class activities. The master's degree is intended for those students who seek more specialized knowledge in order to teach in their chosen area, as well as for students who plan to prepare for doctoral studies or other professional employment.

Available Financial Aid

Graduate teaching assistantships are available for different languages, including Arabic, Chinese, French, German, English as a Second Language, Italian, Japanese, Russian, Portuguese, and Spanish. The assistantships carry full tuition remission and a nine-month stipend (August–May); there are also limited opportunities to teach during the university's summer session. Assistantships are awarded annually to those students who have demonstrated potential to become effective teachers. In order to be considered for a teaching assistantship, students must fill out the department application and submit a writing sample as well as a recorded sample of their speech in the language they are applying to teach.

In addition to graduate teaching assistantships, a limited number of meritorious tuition waiver awards are sometimes available from the Eberly College of Arts and Sciences through the department. These awards are based on academic performance and financial need.

Graduate Teaching Assistants

The department values the contributions made by our graduate assistants and strives to help them become effective teachers. Graduate assistants normally teach two courses (six class-hours per week). They work under the direct supervision of the course coordinator in the language area, but they are fully responsible for their courses (including evaluating their students' work). The coordinator will conduct orientations and organizational meetings with graduate assistants and provide course materials (such as syllabi). In addition, the coordinator will periodically observe individual classes in order to assess the graduate assistants' performance and to provide encouragement and assistance.

All graduate teaching assistants teaching Arabic, French, Italian, and Spanish must register for LANG 621 during their first semester. Graduate assistants teaching any other language must register for LANG 521 in their first semester. In addition, graduate assistants must register for LANG 690 each semester of employment. Students who have already received an M.A. in World Languages, Literatures, and Linguistics from West Virginia University may be ineligible for an assistantship in this department.

Additional Points of Information

ADVISING

All graduate students will have a primary advisor (to be assigned by the chairperson). Students should consult with their advisor when they register for courses or add and/or drop courses. In addition, the Graduate Program Coordinator is available to answer questions regarding the degree program, requirements, comprehensive examinations, graduation, etc. Students may consult with the chairperson regarding departmental matters.

INTERNATIONAL STUDENTS

An F-1 student visa is required for study in the U.S. The visa must be obtained in the student's home country with an I-20 Form from the WVU Office of Admissions. The I-20 will be sent by the Office of Admissions to the student's home address once all academic, English proficiency, and financial requirements have been satisfied.

International students studying in the department on an F-I Visa should remember that they are required to carry a minimum course load of nine hours each semester (excluding the summer) in order to maintain their legal status for their visa. International students, who may be forced to withdraw from a course and thus fall below nine hours in any semester, must first check with the department chair and the Office of International Students and Scholars in E. Moore Hall. Exceptions may be possible in the student's final semester of study.

STUDY ABROAD OPPORTUNITIES FOR GRADUATE STUDENTS

Qualified graduate students in French may compete for the Marguerite Eynard McBride Award, which funds an academic year in France. Year-long exchange programs for graduate students are also in place for France and Spain. The department also sponsors study abroad during the summers in Canada, China, France, Germany, Italy, Japan, Jordan, Mexico, Spain, and Taiwan that graduate students may participate in if they meet the program's requirements. Grants are available on a competitive basis through the department, the Eberly College of Arts and Sciences, and through the Office of International Programs to assist students who wish to study abroad.

FACULTY

CHAIR
- Ángel T. Tuninetti - Ph.D. (Washington University)
  Latin American Literature and Culture

ASSOCIATE CHAIR
- Susan Braidi - Ph.D. (University of Delaware)
  ESL/Linguistics, Applied Linguistics, Second Language Acquisition, Syntax

GRADUATE COORDINATOR
- Sandra Stjepanovic - Ph.D. (University of Connecticut)
  Linguistics, Syntax, Psycholinguistics

PROFESSORS EMERITI
- Pablo González - Ph.D. (University Complutense de Madrid)
  Spanish American Literature and Culture
- Kathleen McNerney - Ph.D. (Universidad Nacional Autonoma de Mexico)
  Spanish, Catalan Language and Literature, Spanish Literature and Culture, Women Writers

PROFESSORS
- Ahmed Fakhri - Ph.D. (University of Michigan)
  ESL/Linguistics, Second Language Acquisition, Applied Linguistics, Discourse Analysis
- Daniel Ferreras - Ph.D. (Michigan State Univesrity)
  French and Spanish, Comparative Romance Literature, French/Spanish 19th and 20th Century Novel, Theory of the Fantastic
- Valérie Lastinger - Ph.D. (University of Georgia)
  French, 18th-century French Literature, French Women Writers
- Janice Spleth - Ph.D. (Rice University)
  French and Francophone Literature and Culture

ASSOCIATE PROFESSORS
- María Amores - Ph.D. (Pennyslavania State University)
  Spanish, Foreign Language Acquisition
- Susan Braidi - Ph.D. (University of Delaware)
  ESL/Linguistics, Applied Linguistics, Second Language Acquisition, Syntax
- Cynthia Chalupa - Ph.D. (Ohio State University)
  Fin de Siècle German and Austrian Literature, Poetry, Foreign Language Pedagogy
- Tania de Miguel Magro - Ph.D. (The State University of New York, Stony Brook)
  Spanish Literature and Culture, Spanish Language, Spanish Golden Age Literature
- Pablo Garcia Loaeza - Ph.D. (Indiana University Bloomington)
  Spanish Language, Latin American Colonial Literature
- Deborah Janson - Ph.D. (University of California)
  German, 18th-21st-century German Literature, Enlightenment, Romanticism, GDR and Post-Wende Literature, Ecofeminism
- Xiangying Jiang - Ph.D. (Northern Arizona University)
  ESL/Linguistics, Second Language Acquisition
- Twyla Meding - Ph.D. (University of Virginia)
  French, 16th and 17th-century French Literature, The Pastoral Novel

- Sandra Stjepanovic - Ph.D. (University of Connecticut)
  Linguistics, Syntax, Psycholinguistics, Semantics
- Ángel T. Tuninetti - Ph.D. (Washington University)
  Chairperson, Spanish, Spanish-American Literature and Culture, Travel Literature

ASSISTANT PROFESSORS

- Manal AlNatour - Ph.D. (University of Arkansas)
  Arabic Studies, Comparative Literature, Cultural Studies
- Sandra Dixon - Ph.D. (Brown University)
  Spanish, Spanish American Literature, Brazilian Literature
- Lourdes Estrada López - Ph.D. (University of Connecticut)
  Spanish Literature and Culture, Spanish Language, Contemporary Spanish Literature, Gender and Sexuality Studies
- Jonah Katz - Ph.D. (Massachusetts Institue of Technology)
  Phonetics, Phonology, Theoretocal and Experimental Linguistics, Music Cognition
- Sergio Robles-Puente - Ph.D. (University of Southern California)
  Spanish Phonetics, Phonology, and Sociolinguistics

TEACHING ASSOCIATE PROFESSOR

- Lisa Di Bartolomeo - Ph.D. (University of North Carolina-Chapel Hill)
  Russian, Russian and Polish Language and Literature, Slavic Folklore, Culture and Cinema, Science Fiction, the Holocaust
- Hannah Lin - Ph.D. (Ohio State University)
  Chinese Studies
- Jennifer Orlikoff - Ph.D. (Rutgers University)
  French, 16th, 18th, 19th Century French Literature, Second Language Acquisition and Methodology, Art History, and Feminist Criticism
- Annastella Vester - Ph.D. (University of California, Los Angeles)
  Italian, Contemporary Italian Literature, 18th and 19th-century Italian

TEACHING ASSISTANT PROFESSOR

- Wenyang Zhai - Ph.D. (Florida State University)
  Chinese Literature and Cinema, Diaspora Literature Studies and Cultural Studies

ADMISSION REQUIREMENTS

To be admitted to the program, a student is expected to have an undergraduate degree in the desired area of study (or an acceptable related-area) with a GPA of 3.0 (overall as well as within the major). The student must complete the university admission application, including payment of the required fee and completion of the supplemental departmental application form, which requires a 300-word statement of purpose, an extended writing sample in the language of the area to which the student is applying, and three letters of recommendation. International students must also submit an acceptable TOEFL or IELTS score. For more information about the admission requirements and application guidelines, please visit our website (http://worldlang.wvu.edu/graduate_programs/graduate/graduate_programs_how_to_apply).

In this section:

Degree Requirements

Students may select from five areas of emphasis (French, Spanish, Linguistics, TESOL, or a combined area that allows them to combine two areas for their degree) to complete a Master of Arts in World Languages, Literatures, and Linguistics. Students must meet all university and college requirements as outlined in the WVU Graduate Catalog as well as the specific departmental requirements described below:

GENERAL

- A minimum of thirty-six credit hours at the graduate level, of which thirty hours of coursework must be taken within the department. (No more than twelve hours of coursework done at the 400 level will be counted toward the degree.)
- No more than three hours of independent study will apply to the degree (unless approved by the departmental chairperson). Note: Independent studies will be permitted only in special circumstances; in most instances, students must enroll in the regularly-scheduled courses.

- No more than twelve hours can be transferred to our program from another accredited institution. (In the case of combination concentrations, no more than six hours can be transferred to any of the combined areas, for a total of twelve hours.)
- No courses for the degree may be taken pass/fail.
- No more than six hours of thesis credits (697/698) can be applied to the degree.
- A 3.0 GPA is required for graduation. Note: No course for which the grade of D or below is recorded can be counted for graduation credit.
- Students must satisfy the foreign language requirement.
- Students must pass comprehensive examinations or successfully defend a thesis.

FOREIGN LANGUAGE REQUIREMENT

Native speakers of English in TESOL, Linguistics, or a combination of the two, must demonstrate proficiency in a second language prior to graduation by completing one language course of level 204 or above, with a grade of B or better, or by taking the departmental placement examination in one language and placing above the 204-level.

International students whose native language is not English are considered to have satisfied this requirement by virtue of their TOEFL score.

COMPREHENSIVE EXAMINATIONS

The comprehensive examinations are intended to evaluate students' knowledge, including the ability to synthesize and evaluate ideas in their area of emphasis. The examinations are based on standardized reading lists (http://worldlang.wvu.edu/graduate_programs/comprehensive_exams_reading_lists)and coursework. Although many of the works on the reading lists will be included in coursework, independent reading will be necessary. Students must take the comprehensive examinations the semester they intend to graduate.

THESIS

A student may request to write a thesis and prepare an oral defense. The feasibility of writing a thesis may be limited due to faculty availability, the student's academic performance, or other factors (to see the qualifying requirements for writing a thesis, consult the Graduate Program Handbook). Under this option, the student is not required to take the written comprehensive examinations but may be asked to comment on coursework and the reading lists, particularly as they relate to the thesis. For more information about this option, see the document "Thesis Guidelines (http://worldlang.wvu.edu/r/download/99265)."

French Area of Emphasis

Reasearch and Theoretical Bases		6
BIBY 615	Methods of Research	
FRCH 611	Literary Criticism	
Knowledge/ Application		12
Choose any 4 courses		
FRCH 532	Early French Literature	
FRCH 533	Seventeenth Century Literature	
FRCH 534	Eighteenth Century Literature	
FRCH 535	Nineteenth Century Literature	
FRCH 536	Twentieth Century Literature	
FRCH 538	Francophone Literature	
Cultural/Social/Historical Context:		3
FRCH 431	French Civilization	
or FRCH 432	Contemporary Culture	
Language Structures:		3
FRCH 501	French Stylistics	
or LING 603	History of the French Language	
Extensions:		12
Thesis Option:		
6 hours from the Extension list*		
6 hours of FRCH 697 Thesis		
Comprehensive Examination Option:		
12 hours from the Extension list*		
Total Hours		**36**

* For a list of approved courses, see page two of the French Plan of Study (http://worldlang.wvu.edu/graduate_programs/plans_of_study)

Spanish Area of Emphasis

Research and Theoretical Bases		6
BIBY 615	Methods of Research	
SPAN 611	Literary Criticism	
Knowledge/Applications: Choose any 4 courses		12
SPAN 631	Latin American Short Story	
SPAN 632	Latin American Novel to 1960	
SPAN 633	Latin American Novel Since 1960	
SPAN 634	Latin American Poetry	
SPAN 635	Latin American Theatre	
SPAN 636	Latin American Nobel Prize Winners	
SPAN 651	Medieval and Golden Age	
SPAN 652	Cervantes	
SPAN 653	Eighteenth and Nineteenth Century Literature	
SPAN 654	Spanish Literature 1898-1936	
SPAN 655	Spanish Literature 1936-1975	
SPAN 656	Spanish Literature after 1975	
Cultural/Social/Historical Context:		3
SPAN 630	Latin American Culture	
or SPAN 650	Spanish Civilization	
Language Structures:		3
LING 501	Structure of Spanish	
Extensions:		12
Thesis Option:		
6 hours from the Extension list*		
6 hours of SPAN 697 Thesis		
Comprehensive Examination Option:		
12 hours from the Extension list*		
Total Hours		**36**

* For a list of approved courses, see page two of the Spanish Plan of Study (http://worldlang.wvu.edu/graduate_programs/plans_of_study)

Linguistics Area of Emphasis

Minimum grade of B must be earned in all required courses

Research and Theoretical Bases:		6
BIBY 615	Methods of Research	
LING 513	History of Linguistics	
Knowledge/Applications:		12
LING 411	Phonology	
LING 412	Syntax	
LING 611	Advanced Phonology	
LING 612	Advanced Syntax	
Cultural/Social/Historical Context:		3
LING 514	Sociolinguistics	
or LING 516	Discourse Analysis	
Language Structures: Choose 1 course		3
LING 402	Structure of Modern French	
LING 501	Structure of Spanish	
LING 511	English as a Second Language Linguistics	
LING 616	Language Typology	

Language Structures:		12
Thesis Option:		
6 hours from the Extension list*		
6 hours of Ling 697		
Comprehensive Examination Option:		
12 hours from the Extension list*		
Total Hours		**36**

* For a list of approved courses, see page two of the Linguistics Plan of Study (http://worldlang.wvu.edu/graduate_programs/plans_of_study)

Teaching English to Speakers of Other Languages (TESOL) Area of Emphasis

Research and Theoretical Bases:		6
BIBY 615	Methods of Research	
LANG 622	English as a Second Language Theory	
Knowledge/Application		12
LANG 521	English as a Second Language Methods	
LANG 422	Second Language Reading	
LANG 522	Computer Assisted Language Learning	
LANG 623	English as a Second Language Materials and Syllabus Design	
LANG 624	Second Language Writing	
LANG 625	Language Assessment	
LANG 626	Literacy in a Second Language	
LING 512	Applied Linguistics	
LING 516	Discourse Analysis	
Cultural/Social/Historical Context:		6
ESL 630	American Culture	
An additional approved course		
Language Structures:		6
LING 511	English as a Second Language Linguistics	
LING 613	English as a Second Language Phonetics	
or LING 411	Phonology	
Extensions:		6
Thesis Option:		
6 hours of Lang 697		
Comprehensive Examination Option:		
6 hours from the Extension list		
Total Hours		**36**

* For a list of approved courses, see page two of the TESOL Plan of Study (http://worldlang.wvu.edu/graduate_programs/plans_of_study)

Combined Areas of Emphases

RESEARCH AND THEORETICAL BASES		3
BIBY 615	Methods of Research	
PRIMARY AREA		18
A. Theoretical Bases and Knowledge /Applications: 12 hours		
4 courses from the Knowledge and Application list*		
B. Cultural/Social/Historical Context : (3 hours)		
1 course from the Cultural/Social/Historical list*		
C. Language Structures: 3 hours		
1 course from the Language Structure list*		
SECONDARY AREA		15
a. Theoretical Bases and Knowledge/Applications: 9 hours		

3 courses from the Theoretical Bases list*	
b. Cultural/Social/Historical Context: 3 hours	
1 course from the Cultural list*	
c. Approved Elective: 3 hours	
1 course from the Approved elective list*	
Total Hours	**36**

* For a list of approved courses, see page two of the Combination Plan of Study (http://worldlang.wvu.edu/graduate_programs/plans_of_study)

College of Business and Economics

Degrees Offered

- Master of Arts in Economics
- Master of Business Administration
- Master of Science in Finance
- Master of Professional Accountancy
- Master of Science in Industrial Relations
- Doctor of Philosophy in Business Administration
- Doctor of Philosophy in Economics

The College of Business and Economics was founded in November of 1951 and graduated its first class in the spring of 1953. Since that time, the College of Business and Economics has become one of the largest colleges at West Virginia University. In 1954, the college became fully accredited by the AACSB International (http://www.aacsb.edu), the highest level of business accreditation.

In 1990, the new College of Business and Economics building was completed on the site of Old Mountaineer Stadium on the downtown campus adjacent to historic Woodburn Hall. The four-story facility houses modern classrooms, two auditoriums, state-of-the-art computer laboratories, and space for the college's research and service centers.

Overview of Programs

The doctor of philosophy and master of arts degrees in economics prepare students for careers in business, government, and higher education. Students receive in-depth education in the concepts and methods of economic analysis and econometrics and specialize in two fields of study from financial, international, monetary, public, regional, urban economics, and resource economics. These programs are well-suited to students with undergraduate degrees in economics, finance, mathematics, statistics, public policy, history, and other humanities majors.

The doctor of philosophy degree in business administration has four areas of specialization: accounting, finance, management and marketing. Students develop deep content knowledge in their specialty along with a strong foundation in research methodology. The programs are focused on preparing graduates for research and academic careers.

The master of business administration (M.B.A.) program is especially attractive for the student with a non-business undergraduate major since no previous business courses are required for admission. Coursework includes an even exposure to all of the functional areas of business and provides a broad general management orientation. The M.B.A. program is offered during the day for full-time students in Morgantown. The M.B.A. program is also offered for working professionals online and in the evenings at various locations throughout West Virginia and is referred to as the executive M.B.A.

The master of science in industrial relations (M.S.I.R.) provides an interdisciplinary education for the student desiring a career in human resources management and industrial relations. All undergraduate majors are acceptable. Elective areas of study may include the functional areas of business, counseling, law, safety, and others.

The master of professional accountancy (M.P.A.) program is available to students with undergraduate degrees in accounting. Students without accounting undergraduate degrees can fulfill specific accounting prerequisites and be admitted to the program. The program follows the AICPA's recommendations for a five-year accounting education and meets the requirements of most states with 150-hour requirements for C.P.A. certification. The division of accounting also offers a graduate certificate in forensic accounting and fraud .

The master of finance (M.S. Fin.) program is available to students with a strong background in finance or accounting (either through undergraduate degree in finance or accounting or with five years of experience in a finance-related field). The program offers a series of courses which provides graduates with a thorough understanding of material in the C.F.A. (Chartered Financial Analyst) Candidate Body of Knowledge.

Specific information about graduate programs in the College of Business and Economics may be obtained from Office of Graduate Programs, 340 Business and Economics Building, P.O. Box 6027, West Virginia University, Morgantown, WV 26506-6027, Telephone (304) 293-6579.

ADMINISTRATION

INTERIM DEAN
- Nancy McIntyre - Ph.D. (University of Rhode Island)

ASSOCIATE DEANS
- Mark Gavin - Ph.D. (Purdue University)
  Associate Dean for Graduate Programs and Research Impact
- A. Graham Peace - Ph.D. (University of Pittsburgh)

Associate Dean for Academic Affairs
- Jess Mancini - M.P.A. (West Virginia University)
Assoicate Dean for Administrative Services

Degree Designation Learning Goals

MASTER OF BUSINESS ADMINISTRATION (MBA)

Master of Business Administration (MBA)

Goal 1: Students will be able to integrate the functional areas of business into management decisions in a global environment.

- 1.1 Students will be able to assess the impact of different cultures; governments; legal, political, competitive, and currency systems; and trade organizations on the multinational national enterprise.
- 1.2 Students will be able to assess trends in the global business environment.

Goal 2: Students will be able to identify problems, collect appropriate data, and analyze the data to make informed management decisions.

- 2.1 Students will be able to evaluate potential business projects and make economically feasible recommendations.
- 2.2 Students should be able to prepare and interpret financial statements.
- 2.3 Students will be able to make data-driven, fact-based decision making using statistical techniques and principles.
- 2.4 Student will be able to assess emerging, new technologies from a business management perspective.

Goal 3: Students will be able to articulate a succinct business analysis and make recommendations.

- 3.1 Students will be able to make business recommendations using appropriate analyses to support their position.
- 3.2 Students will be able to communicate the management information systems needs of an organization.
- 3.3 Students will be able to make recommendations for an organization based on a supply chain analysis.

Goal 4: Students will be able to make management decisions in an ethically sensitive and socially responsible manner.

- 4.1 Students will become familiar with personnel/human resource management policies and procedures with consideration for international, multi-cultural, and ethical implications.
- 4.2 Students will be able to negotiate and control information ethically to meet organizational needs.

Goal 5: Students will be able to effectively manage teams and work units and implement strategies to achieve organizational goals.

- 5.1 Students will evaluate the processes through which goals are set and accomplished in organizations.
- 5.2 Students will demonstrate effective management, leadership, and teamwork skills.
- 5.3 Students will be able to apply basic theories of human behavior and individual differences to the process of energizing and directing behavior (of both self and others).

Executive Master of Business Administration (EMBA)

Goal 1: Students will be able to integrate the functional areas of business into management decisions in a global environment.

- 1.1 Students will be able to evaluate factors that influence the competitive behavior of the firm.
- 1.2 Students will be able to predict and anticipate company and market responses to external factors.
- 1.3 Students will be able to identify the risks and opportunities in global markets.

Goal 2: Students will be able to identify problems, collect appropriate data, and analyze the data to make informed management decisions.

- 2.1 Students will be able to evaluate business reports to make meaningful decisions for the organization.
- 2.2 Students will be able to make data-driven, fact-based decision making using statistical techniques and principles.
- 2.3 Students will be able to take real-world problems and express them in quantitative terms.

Goal 3: Students will be able to articulate a succinct business analysis and make recommendations.

- 3.1 Students will be able to evaluate potential business projects and make economically feasible recommendations.
- 3.2 Students will be able provide analysis to a business problem that they are currently facing in their professional lives and provide a plan for next steps.

Goal 4: Students will be able to make management decisions in an ethically sensitive and socially responsible manner.

- 4.1 Students will be able to negotiate and control information ethically to meet organizational needs.

- 4.2 Students will understand how to use and acquire information in an ethically sensitive manner.
- 4.3 Students will be able to synthesize various ethical theories and design a corporate code of ethics.

Goal 5: Students will be effective team members in a virtual environment.

- 5.1 Students will be able to work together in a supportive and effective way.

Goal 6: Students will be effective leaders who influence people toward the attainment of organizational goals.

- 6.1 Students will recommend actions for leader effectiveness in a scenario case and apply a theory or framework to propose and defend their recommendations.
- 6.2 Students will identify various leadership styles and their relative effectiveness, along with real-life examples.
- 6.3 Students will evaluate, in a case setting, the processes through which goals are set and accomplished in organizations.

MASTER OF PROFESSIONAL ACCOUNTANCY (MPA)

Goal 1: Students will demonstrate competence in advanced technical topics.

Goal 2: Students will demonstrate research skills by finding and interpreting authoritative literature.

Goal 3: Students will communicate the results of research and/or analysis.

Goal 4: Students will identify an ethical dilemma and propose a solution.

MASTER OF SCIENCE (MS)

Master of Science (MS) in Finance

Goal 1: Students will demonstrate understanding of the ethical and professional standards in the securities industry.

Goal 2: Students will demonstrate understanding of how microeconomic and macroeconomic factors influence the values of financial assets.

Goal 3: Three: Students will apply appropriate quantitative investment analysis tools.

Goal 4: Students will interpret and analyze external financial information from the viewpoint of investors and creditors.

Goal 5: Students will master the fundamental economic techniques for valuing financial assets.

Goal 6: Students will construct, evaluate, and manage diversified portfolios and effectively communicate the process.

Master of Science (MS) in Human Resources and Industrial Relations

Goal 1: The Human Resources (HR) Functional Environment. Students acquire knowledge and skills in basic HR functional areas that prepare them for their future careers in human resources management and industrial relations and related fields

- 1.1 Selection, Performance Management, and Training. Students are able to participate and lead in the selection processes in their organizations as well as in the measurement of performance of the human asset and the identification of training and development activities to either correct performance deficiencies or enhance performance attributes.
- 1.2 Compensation and Benefits. Students are able to help establish and maintain equitable compensation programs and associated benefits and insurance in their organizations.

Goal 2: The Current Global Environment.Students have capabilities and knowledge relating to current HR/IR trends, both domestically and internationally, that prepare them for their future careers in human resources management and related fields.

- 2.1 International HR/IR and Understanding Cultural Differences. Students are able to apply human resource and industrial relations functional tools in an international context based on a detailed comprehension of the economic, social, and moral ramifications of globalization and cultural differences.
- 2.2 Management of Change, Current Trends, and Technologies. Students are able to participate in managing change processes within their organizations and to apply knowledge of current events, trends and developments in the human resources profession and in the overall business environment, including contemporary information systems and associated technologies, in order to solve problems and perform functions commonly encountered in human resource management.

Goal 3: The Employee and Labor Relations Environment. Students acquire knowledge and skills in employee and labor relations that prepare them for their future careers in human resources management and industrial relations and related fields.

- 3.1 Management of Conflict. Students are able to use a foundational knowledge of individual behavior and interpersonal relations in order to successfully manage and resolve conflict through processes such as mediation and facilitation.

- 3.2 Negotiation and Arbitration. Students are able to demonstrate effective negotiating capacities and competencies in win-win and position bargaining in general and specifically in labor relations. Students are effective advocates in labor relations arbitration and in adversarial administrative hearings.

Goal 4: The Legal and Ethical Environment. Students develop comprehensive knowledge and skill in the areas of employment law and ethical decision making.

- 4.1 Legal and Ethical Decision Making. Students are able to successfully implement the procedural and substantive aspects of labor and employment law in making ethical decisions and taking ethical actions that reflect a standard of professional behavior and values within their organizations.

Goal 5: The Strategic Environment. Students develop knowledge and skills in strategic decision making, leadership, teamwork and communications.

- 5.1 Strategic Decision Making. Students are able to participate in and support strategic decision-making in human resources and industrial relations and across the larger organization.
- 5.2 Leadership, Teamwork and Communication. Students possess leadership and teamwork skills and abilities and are able to effectively communicate recommendations to management and other constituencies, orally and in writing.

DOCTOR OF PHILOSOPHY (PHD)

Doctor of Philosophy (PHD) in Business Administration

Goal 1: Students will be able to explain the holistic nature of business opportunities and problems.

Goal 2: Students will be able to explain the role of inquiry and research in solving business problems.

Goal 3: Students will be able to build a theoretical framework that addresses a particular business problem and may be generalized to aid in the understanding of similar business problems.

Goal 4: Students will be able to produce and defend original research in their major area of study.

Goal 5: Students will be able to apply research skills to analyze business problems.

Goal 6: Students will be able to complete a dissertation that develops new knowledge in their major area of study.

Doctor of Philosophy (PHD) in Economics

Goal 1: The doctoral program in economics trains students to:

- 1.1 Conduct independent and original research in economics of publishable quality.
- 1.2 Achieve a level of understanding of both theoretical and empirical economics that meets or exceeds the expectations of the economics profession for a doctorate in economics.
- 1.3 Effectively communicate both what economists in general know and the fruits of the student's own research.

Goal 2: Upon completion of the degree, students will be able to:

- 2.1 Teach, at any undergraduate level or beyond, core courses in economics and courses in at least two areas of specialization within economics.
- 2.2 Write research papers that lead to refereed publications in economics journals.
- 2.3 Apply the methods and insights of economics in ways valued by society.

Special Requirements

Admissions to the M.B.A., M.P.A., M.S. in finance, M.S. in industrial relations, the Ph.D. in business administration, and the M.A. and Ph.D. in economics programs require a bachelor's degree from an accredited institution. The Graduate Management Admissions Test (GMAT) is preferred for all of the business graduate programs. For the M.S.I.R, the M.B.A., and the Ph.D. in Business Administration in Management.program, the Graduate Record Examination (GRE) may be substituted for the GMAT. The economics programs require the GRE. Refer to the program's webpages for application requirements.

Accountancy, Professional

e-mail: accountingdepartment@mail.wvu.edu

Degrees Offered

- Master of Professional Accountancy (M.P.A.)
- Graduate Certificate in Forensic Accounting and Fraud Examination

Given the changing environment in both the public and private sectors of the economy, many accountants will need an educational background that goes beyond that obtained in an undergraduate degree program. Accountants must be proficient in applying professional concepts and principles to a wide variety of existing and emerging situations as an effective member of a team and also have the ability to adapt to new standards and methods of doing business. Competing in such an environment requires a solid technical foundation, adeptness in analyzing complex business situations, and the ability to effectively communicate recommended solutions and conclusions. Thus, the objectives of the M.P.A. program include the integration of financial and nonfinancial data in problem-solving and decision-making, the application of relevant research techniques and information technologies, the integration of varying viewpoints and techniques of conflict resolution, and the importance of adhering to a strong ethical code.

The accounting programs at WVU, both undergraduate and graduate, have separate accounting accreditation by the AACSB International—The Association to Advance Collegiate Schools of Business. At the date of this printing, there are relatively few colleges and universities in the nation that have achieved this status at both the undergraduate and graduate levels.

Program

The M.P.A. program is a thirty credit-hour program, which can be completed in approximately ten months of full-time study or twenty-two months half-time. The program requires that the student have the equivalent of an undergraduate degree in accounting and meet very specific accounting and business course prerequisites. Work experience is not a requirement for admission. Students may enter the program on either a full-time or half-time basis. Fall is the preferred starting date, but students may start in May or January. Careful selection of degree candidates limits the size of classes, leads to high-quality efforts in the program, and permits frequent and direct contact between students and faculty. The full-time program consists of two twelve-hour semesters and one four-week summer session. Half of the courses each term are taught in the early evening and the other half in the late afternoon to provide the opportunity for part-time employment for full-time students and part-time study for full-time employees. Courses will be offered in Morgantown or online.

No thesis is required in the program, but communication skills are emphasized in all courses. Extensive use is made of information technology in accounting applications.

Academic Standards

The M.P.A. program requires that the student maintain a grade point average of at least 3.0 on all work taken as a graduate student while enrolled in the College of Business and Economics, including prescribed work taken to remove undergraduate deficiencies. A student whose cumulative grade point average falls below 2.75 will be placed on probation. If the average is not brought up to 2.75 by the end of the following semester, the student will be suspended from the program. A grade below C in more than one course taken while enrolled as a graduate student will result in suspension from the graduate program. A course with a grade below C will not count for the thirty semester-hour requirement for graduation unless repeated with a grade of C or above. A student must have a grade point average of 3.0 or above on the thirty semester hours required for the degree. Complete information about the M.P.A. program may be obtained from http://www.be.wvu.edu/mpa/index.htm.

Requirements to Sit for C.P.A. Examination

The specific requirements to sit for the Uniform C.P.A. Examination vary with each state board of accountancy. Some states (or other jurisdictions such as the District of Columbia or Guam) require candidates to have a bachelor's degree with a specified distribution of accounting and business courses as the minimum educational requirement to take the examination, whereas others require a bachelor's degree and the completion of 150 semester hours of academic credit (including a specified distribution of courses) as the minimum. These standards are subject to change; thus, students should occasionally review the requirements (including the distribution of courses) of the board in the jurisdiction in which they plan to sit for the examination. Incidentally, these are the requirements to sit for the examination, not to be certified. Most boards of accountancy require 150 semester hours of academic credit for certification.

The West Virginia Board of Accountancy requires a bachelor's degree with a specified distribution of coursework as the minimum qualification to sit for the C.P.A. examination. This includes twenty-seven semester hours of accounting (excluding principles), six hours of business law, and twenty-seven hours of related business courses. West Virginia also requires a three semester credit-hour ethics course for all individuals applying to sit for the exam. This course may be counted as either an accounting or a business elective. West Virginia requires 150 semester hours of academic credit to be completed prior to certification.

For the specific requirements to sit for the C.P.A. examination in West Virginia, go to the Board's website at http://www.boa.wv.gov or call (304) 558-3557. For requirements in other jurisdictions, go to the National Association of State Boards of Accountancy's website at http://www.nasba.org and use the links to the web pages for all boards of accountancy under the "Members" section.

Content specification of the C.P.A. examination and related information may be found at http://www.cpa-exam.org using the "Prepare for the Exam" and then "How to Prepare" links.

Financial Assistance

WVU has a strong comprehensive financial aid program to help you finance your education. Although the cost to attend WVU is relatively low, more than half of our students qualify for financial aid awarded on the basis of need, merit, or a combination of the two. The Free Application for Federal

Student Aid (FAFSA) must be completed before March 1. Contact the Student Financial Aid Office at (304) 293-5242 or at finaid@mail.wvu.edu for more information or go to the website at http://adm.wvu.edu/.

The Accounting Department in the College of Business and Economics has a very limited number of graduate assistantships and tuition waivers for M.P.A. students. This is common among many master's degree programs in accounting and business at public universities. Applicants are encouraged to note that the WVU M.P.A. program is a quality but relatively short (thirty credits over ten and one-half months) master's program of only two semesters and one summer session.

FACULTY

CHAIR

- Richard Dull - Ph.D. (Virginia Polytechnic Institute and State University)
  C.P.A./C.F.F., C.F.E., C.I.S.A., Accounting Information Systems, Forensic Accounting, IT Auditing

PROFESSORS

- Barbara Apostolou - Ph.D. (Louisiana State University)
  C.P.A., Auditing, Assurance Services, Fraud and Forensic Accounting
- Richard C. Brooks - Ph.D. (Louisiana State University)
  C.G.F.M., Governmental Accounting, Public Sector Accounting
- Adolph A. Neidermeyer - Ph.D. (University of Iowa)
  Federal and State Income Taxation, Estate Planning, Financial Accounting, Personal Financial Planning
- Presha Neidermeyer - Ph.D. (Virginia Commonwealth University)
  C.P.A., Federal and State Income Taxation, Estate Planning, International Accounting, Financial Accounting
- Richard Riley - Ph.D. (University of Tennessee)
  C.P.A., C.F.E., Forensic Accounting, Financial Accounting, Financial Statement Analysis, Personal Financial Planning, Auditing

ASSOCIATE PROFESSOR

- Richard Dull - Ph.D. (Virginia Polytechnic Institute and State University)
  C.P.A./C.F.F., C.F.E., C.I.S.A., Accounting Information Systems, Forensic Accoutning, IT Auditing
- Arron Scott Fleming - Ph.D. (Virginia Polytechnic Institute and State University)
  C.P.A., C.M.A., Managerial and Financial Accounting, Fraud and Forensic Accounting, Behavioral Research
- Christian Schaupp - Ph.D. (Virginia Polytechnic Institute and State University)
  C.F.E., Accounting Information Systems, IT Auditing

ASSISTANT PROFESSOR

- Noel Brock - M.P.A. (West Virginia University), J.D. (West Virginia University), L.L.M. (Georgetown University)
  C.P.A., Federal Taxation, Pass-through Entity and Owner Taxation
- Jack W. Dorminey - Ph.D. (Virginia Commonwealth University)
  Intermediate Financial Accounting, Regulatory Accounting
- Theresa D. Hilliard - D.B.A. (Georgia State University)
  C.P.A., Financial Accounting, International, Capital markets, Fraud/forensic research
- Kip D. Holderness - Ph.D. (Bentley University)
  C.P.A., C.M.A., C.F.E., Managerial accounting, Forensic accounting, Behavioral research
- Mark Nigrini - Ph.D. (University of Cincinnati)
  Auditing, Forensic Analytics, Prosecution of fraud schemes

VISITING PROFESSOR

- Nicholas Apostolou - D.B.A. (University of Tennessee)
  C.P.A., C.F.A., Financial Accounting, Managerial Accounting, Fraud and Forensic Accounting

PROFESSORS EMERITI

- Jay H. Coats - Ph.D. (University of Pittsburgh)
  Dean
- Robert Maust - A.B.D. (University of Michigan)
  C.P.A.
- David B. Pariser - Ph.D. (Southern Illinois University)
  C.P.A., C.M.A., C.C.A., C.G.F.M.
- Ann B. Pushkin - Ph.D. (Virginia Polytechnic Institute and State University)

C.P.A.

LECTURERS

- Nancy P. Lynch - M.S. (University of Colorado)
  C.P.A., C.M.A.
- Megan McBride - M.A.C.I.S. (Virginia Polytechnic Institute and State University)
  C.I.S.A.
- Denise R. White - M.P.A. (West Virginia University)
  C.P.A.

Admission to Program

Admission to the M.P.A. program is determined by a committee of accounting faculty members. The committee acts upon individual applications within a short period of time after receipt of the completed application.

The Admission Committee will consider applicants with a GPA of 3.2 or above from their undergraduate institution if the university has achieved accreditation from AACSB or its equivalent internationally.   For those applicants whose GPA is not equal to 3.2 or those who have not graduated from an accredited institution, the Admissions Committee prefers applicants who can achieve a 1200 Georgetown score. This score is made up of 200 x the undergraduate GPA + the GMAT score. The total should be equal to 1200 or above to be considered for admission. Applicants may be considered for provisional admission if they fall below this point at the discretion of the Committee.

Applicants who have passed the Certified Public Accountant examination are exempt from the GMAT requirement. Candidates who meet most of the above requirements will still be considered. Other factors such as work experience and other graduate degree work may also be a part of the committee's decision-making.

The above requirements apply to both full and part-time student applicants. As an AACSB-accredited program in accounting, these requirements must also be met by non-degree students who desire to take any of the graduate courses required by the M.P.A. Program.

Students who possess appropriate GMAT scores and grade point averages but do not possess a bachelor's degree with a major in accounting (or equivalent) may apply for non-degree or provisional status while they are taking undergraduate prerequisite courses in accounting and business. Provisional students must complete the prerequisite courses before enrolling in M.P.A. courses. Applicants with accounting undergraduate degrees must also satisfy all the prerequisite courses for the M.P.A. Program.

Students receiving provisional admission to the M.P.A. degree will meet with the M.P.A. Coordinator to develop a written plan for the completion of the prerequisite courses. Failure to satisfactorily complete the plan will result in the cancellation of the applicant's provisional M.P.A. graduate student status.

Provisional students may not enroll in any graduate accounting courses until prerequisite courses have been successfully completed. After completing prerequisite coursework the student must request a change from provisional to regular M.P.A. status which is subject to approval by the M.P.A. Admission Committee. The M.P.A. degree is designed to follow an undergraduate degree in business. Students without a bachelor's degree with a major in accounting (or equivalent) will be required to take additional business and accounting courses.

International students should note that the College of Business and Economics TOEFL requirement is higher than the university's. Applicants must have a TOEFL score of 580 (paper), 237 (computer), or 92 (internet-based). If applicants have taken the IELTS instead of the TOEFL, the minimum score must be 7.0. International students who do not meet the College of Business and Economics TOEFL or IELTS requirement may be admitted "conditionally" provided that they enroll in the University's Intensive English Program.

Prerequisites

To assure that all students in the program have the same foundation in business, the following prerequisite courses (or their equivalent) must be completed before enrolling in M.P.A. graduate courses: principles of accounting (six hours); intermediate accounting (six hours); cost accounting, income tax accounting, auditing, principles of microeconomics, principles of marketing, principles of management, principles of finance, statistics, business law (six hours, three of which may be taken concurrently with graduate courses); and computer science. A student without the necessary prerequisite courses may be approved to enter the M.P.A. Program as a provisional graduate student.

Master of Professional Accountancy

M.P.A. Course Offerings

A minimum GPA of 3.0 is required in all courses		
A grade of C or higher must be earned in all required courses		
ACCT 501	Accounting/Economic Decision Making	3
ACCT 511	Financial Accounting Theory and Practice	3
ACCT 512	Mergers and Acquisitions	3
ACCT 521	Information Technology Auditing	3

ACCT 522	Electronic Commerce and Internet Security	3
ACCT 541	Federal Tax Research and Writing	3
ACCT 551	Assurance Services and Professional Standards	3
ACCT 556	Fraud Detection and Deterrence	3
ACCT 561	Governmental and Not-for-Profit Accounting	3
ACCT 571	Accounting/Business Consulting	3
Total Hours		**30**

Note: Students who have not completed Accounting Systems (ACCT 322, three hours) and Law for the CPA (BLAW 420, three hours) as part of their undergraduate program must also take these two courses in addition to the above thirty hours. These courses may be taken concurrently with the graduate courses.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
ACCT 501	3	ACCT 512	3	ACCT 581	3
ACCT 511	3	ACCT 522	3	ACCT 582	3
ACCT 551	3	ACCT 541	3		
ACCT 561	3	ACCT 571	3		
	12		**12**		**6**

Total credit hours: 30

Graduate Certificate in Forensic Accounting and Fraud Examination (FAFE)

The widespread growth in white-collar crime, litigation disputes, the illegal international movement of money and terrorism financing have greatly raised the demand for forensic accountants, fraud examiners and for accounting professionals who possess those skills. Federal, state, and local governmental agencies, such as the Securities and Exchange Commission, Public Company Accounting Oversight Board, The US Bureau of Alcohol Tobacco, Firearms and Explosives, the Federal Bureau of Investigation, the Internal Revenue Service, Homeland Security, and the Offices of Inspector General all need professionals with forensic accounting and fraud examination skills. In the private sector, legislation (e.g., Dodd-Frank of 2010, Sarbanes-Oxley Act of 2002) and auditing standards (Statement on Auditing Standard No. 99) require companies and their auditors to be more aggressive in detecting, preventing and deterring fraud.

CFE Exam Prep Course: Included in your tuition is the ACFE (http://www.acfe.com) Exam Prep Course, making you eligible and qualified to sit for the CFE Exam.

Further, our experiential learning assignments are designed to ensure that graduates can "hit the ground running" in their jobs using their knowledge, skills and abilities developed in the FAFE program.

A unique program creating employment opportunities for graduates.

The WVU Department of Accounting has responded to the demand for forensic accountants and fraud examiners by developing an academic program designed to prepare students for careers in litigation support, forensic accounting and fraud examination. Although many schools offer a single fraud examination or forensic accounting course, very few offer a multi-course program. The 12-credit graduate Certificate Program in Forensic Accounting and Fraud Examination (FAFE) is offered via three options:

- Option 1: Complete the four course Graduate Certificate program curriculum on-line over two semesters. The on-line option requires two, 2-day on-campus residencies (described below)
- Option 2: Complete the four course Graduate Certificate program curriculum during the summer
- Option 3: Complete the Master of Professional Accountancy (MPA) on-campus degree plus complete two advanced FAFE certificate courses to earn the both FAFE Graduate Certificate and the MPA over 11 months. To explore the MPA program, please click here: http://www.be.wvu.edu/mpa/index.htm. All MPA students are exposed to essentially all of the material covered in ACCT 581 and ACCT 582. Various fraud-related topics are covered in several MPA courses, but the primary overlap with ACCT 581 and ACCT 582 is in ACCT 556 Fraud Detection & Deterrence and ACCT 521 Information Technology Auditing, respectively. ACCT 556 is a required MPA course that responses to changing demands of the accounting profession. ACCT 521 covers data analysis techniques.

FAFE students are eligible to participate in all College of B&E's Center for Career Development (CCD) services. Even for on-campus interviews, on-line students not residing in Morgantown, WV can participate via phone call / internet-based interviews. WVU typically has more than 25 employers visit campus each year seeking qualified accounting students, several of which also recruit students with FAFE credentials. Please see http://www.be.wvu.edu/careers/index.htm.

ADMISSION REQUIREMENTS

1. A bachelor's degree with two years of relevant work experience, Certified Public Accountant (CPA) certificate, a related Certification by an approved credentialing body, law degree or admission to an accredited law school OR a

2. A bachelor's degree with an overall GPA of 2.9 or above, and a score of 500 on the Graduate Management Admission Test (GMAT) (http://www.mba.com/mba/thegmat) or a score of 1000 on the Graduate Record Examination (GRE).

3. The following courses, or equivalent in terms of professional experience, are prerequisites for admission to the Certificate Program:

4.

ACCT 201	Principles of Accounting	3
ACCT 311	Intermediate Accounting	3
ACCT 322	Accounting Systems	3
ACCT 451	Auditing Theory	3

The prerequisites may be taken at any accredited institution of higher education including online courses. Two years of related professional experience may be substituted for the prerequisite courses. An Admissions Committee for the Department of Accounting will assess prior experience.

Not all applicants may be admitted to the program. Because the program consists of intense hands-on cases and specialized assignments, enrollment in the program is limited. An Admissions Committee of three accounting faculty members will review applications and will accept individuals demonstrating the greatest potential for success.

Applicants whose first language is not English must provide proof of English language proficiency. The Test of English as a Foreign Language (TOEFL) (http://www.ets.org/portal/site/ets/menuitem.fab2360b1645a1de9b3a0779f1751509/?vgnextoid=69c0197a484f4010VgnVCM10000022f95190RCRD&WT.ac=Redirect_ets.org_toefl) is used as the measure of English language proficiency. A score of 250 on the computer-based TOEFL or 600 on the paper-based TOEFL is the minimum required of all such applicants. Applicants who have received a high school diploma or a bachelor's degree in the United States need not submit a TOEFL score.

FAFE PROGRAM DETAILS

Students will complete four courses. All four courses are taught using actual and simulated case materials, a hands-on approach to prepare students for their careers in litigation support, forensic accounting and fraud examination. To mimic real-world expectations, students are required to perform two actual case engagements and report their findings both in writing and orally – see pitch-to-prosecutor and moot court exercise description below.

The four courses are:

ACCT 581	Fraud Investigation	3
ACCT 582	Fraud Data Analysis	3
ACCT 583	Fraud: Criminology/Legal Issues	3
ACCT 584	Advanced Fraud Investigation	3

The program includes two in-class / on-line case investigations and two investigative engagements that students must complete in a team format. Both require students to present and defend their work in front of practicing professionals as follows:

"Pitch to Prosecutor" Exercise in Accounting 581 - Students will complete one major case investigation (MCI) over the course of study in Acct 581. The purpose is to provide students with experience in performing basic investigative tasks and analysis. These projects involve analyzing simulated case information based on actual frauds / financial crimes as well as related corporate and business records to determine if fraud has occurred, who did and how. Students mimic investigative processes used in conducting analytical reviews, soliciting information from clients, and reporting suspicious activity for a fictitious client / target company.

The exercise culminates in a ("Pitch to Prosecutor") exercise where students "pitch" the results of their investigations to a "prosecutor" to see if the case merits taking it to the next level. The "prosecutor" is a role played position by a qualified professional with experience in the area. The job of the prosecutor is to listen to the presentation, ask appropriate questions and then critique the team on the areas where they excelled, met expectations, or were deficient. Students have 20-25 minutes for their presentation and the prosecutor has 5-10 minutes for Questions and Answers. The critique by the prosecutor has a major impact on the student's grade for this portion of the case investigation.

Prosecutors are expected to come to the pitch "blind," meaning that they are responding to a request for a meeting by an investigative team. The prosecutor has no advance preparation. The prosecutor simply attends the pitch meeting, listens, asks questions, and evaluates whether the case should be moved forward and formal action taken against the alleged perpetrator(s). Students must utilize a variety of communication tools during the exercise including direct and indirect financial analyses, Excel spreadsheet financial analyses that highlight important case points, PowerPoint, link charts, flow diagrams and time lines, and the hypothesis-evidence matrix.

"Moot Court" Exercise (Capstone Experience) in Accounting 584 Supported by attorneys from the IRS and Steptoe & Johnson, PLLC

This course includes an integrative capstone experience using simulated actual case material as a basis for conducting an investigation throughout the course. In order to complete the assignments, students must integrate and draw upon the knowledge and skills developed in the other three courses, including the use of digital tools and techniques, developed in Fraud Data Analysis.

The purpose of this integrated exercise is to provide students with experience in performing complex investigative tasks and analyses. (These cases are complex financial crimes / frauds that include money laundering, RICO, mail fraud, wire fraud, tax fraud and conspiracy. The cases are usually centered on organized crime, drug trafficking or terrorism financing.) These projects involve analyzing real-world case information (public data and open source research techniques) as well as corporate and business records to determine if fraud or a financial crime has occurred. Students mimic investigative processes found in practice by conducting analytical reviews, soliciting information from clients, and reporting suspicious activity for a fictitious client company. Finally, the capstone experience culminates when students testify to their findings in a moot court scenario using direct and in-direct financial analyses, other Excel spreadsheet financial analyses that highlight important case points, link charts, flow diagrams and time lines and the hypothesis-evidence matrix. The role of "judge" in the moot court exercise is played by practicing attorneys with related professional experience.

Other experiential learning activities:

Crime Scene Investigation – Financial (CSI-F). As part of the advanced courses, student visit the West Virginia University Crime Scene Complex where they are offered instruction and then collect evidence that incorporated in the major case investigation, both the oral and written activities. Click here to see video.

Advanced Data Mining. Part of Accounting 582 is centered on "big data," students' developing data mining skills, using data mining such as IDEA or ACL. As part of the advanced courses, student visit the West Virginia University computer lab where they are offered supplemental instruction in advance data mining tools and techniques. The data mining analytical findings are then incorporated in the major case investigation, both the oral and written activities.

Business Administration

Master of Business Administration

The master of business administration program is accredited by the AACSB. It is offered as a full-time, day-class program in Morgantown and requires thirteen and one-half months to complete. It is also offered in the evening via distance learning in Charleston, Morgantown, Martinsburg, and online. The evening and online program, referred to as the Executive M.B.A. Program, is designed for working professionals and requires two years to complete. The standards of excellence that support accreditation by the AACSB are maintained at all instructional sites.

The M.B.A. degree program recognizes the need for future managers to be able to anticipate and recognize change and then to manage resources advantageously in that environment. Thus, the curriculum emphasizes a general, broad-based approach to graduate education in management which provides the student with the qualitative and quantitative skills necessary for a manager to succeed in such an environment. The program develops a managerial perspective that is primarily line-oriented as opposed to staff-oriented and is relevant to those in both private and public organizations.

Full-Time M.B.A. Program

The full-time M.B.A. plan of study requires a total of fifty credit hours of graduate credit. The program is designed for individuals with varying educational and professional backgrounds. Students must have pre-requisite courses to be eligible for the program: ACCT 201, ECON 201, and ECON 225 or STAT 211. If students are applying to the M.B.A. program from outside WVU, the course descriptions can be used to match courses at other institutions. Students not able to meet the prerequisite coursework prior to completing their undergraduate degree can meet this requirement via an online software program. No master's thesis is required for completion of the degree.

The full-time M.B.A. degree program is completed on the Morgantown campus. A full-time student can enter the program only in June of each year and graduate in mid-August of the following year. Students may enter the executive M.B.A. program at the start of either the fall or spring semester and complete the program two years later.

Executive M.B.A. Program

The executive M.B.A. plan of study requires forty-eight credit hours of graduate credit. The program is designed for working professionals with varying educational and professional backgrounds. The program requires a minimum of two years of work experience. There are two program offerings, online and evening. The online program begins twice a year in fall and spring. In addition to the online curriculum, four three-four day residencies are required. The residencies occur once a semester. The evening program is offered in Morgantown, Martinsburg, and Charleston. Classes are two evenings a week with an occasional Saturday. The evening program begins once a year in the summer.

Dual Degree Programs

The College of Business of Economics offers a number of joint programs through both the full-time and the executive M.B.A. programs. Please contact the Office of Graduate Programs for details regarding admission criteria and plans of study.

Dual Degree Programs in conjunction with the full-time M.B.A.:

- M.B.A./M.S.I.R.
- M.B.A./M.S. of sport management
- M.B.A./M.S. in finance
- M.B.A./M.D.
- M.B.A./D.D.S.
- M.B.A./M.P.H.

Dual Degree Programs in conjunction with the Executive M.B.A.:

- M.B.A./J.D.
- M.B.A./Pharm.D.

Financial Aid

Scholarships are available for the full-time M.B.A. program on a competitive basis. Additional information and application forms can be obtained from the director of masters programs.

FACULTY

ASSISTANT DEAN OF GRADUATE PROGRAMS

- Elizabeth Vitullo - Ph.D. (West Virginia University)

PROFESSORS

- Jack Fuller - Ph.D. (University of Arkansas)
- Mark Gavin - Ph.D. (Purdue University)
- Usha Haley - Ph.D. (New York University)
- Clifford Hawley - Ph.D. (Duke University)

ASSOCIATE PROFESSORS

- Gerald Blakely - Ph.D. (University of North Carolina)
- David Dawley - Ph.D. (Florida State University)
- Jeff Houghton - Ph.D. (Virginia Polytechnic Institute and State University)
- Virginia Kleist - Ph.D. (University of Pittsburgh)
- Christian Schaupp - Ph.D. (Virginia Polytechnic Institute and State University)
- Paul Speaker - Ph.D. (Purdue University)
- Abhishek Srivastava - Ph.D. (University of Maryland)

VISITING PROFESSOR

- Nicholas Apostolou - D.B.A. (University of Tennessee)

LECTURER

- J.Timothy Heames - A.B.D. (Carnegie Mellon University)

RESEARCH ASSOCIATE

- Christiadi - Ph.D. (West Virginia University)

ADJUNCT PROFESSOR

- Jena Martin Amerson - L.L.M. (University of Texas), J.D. (Howard University)

DIRECTOR, CENTER FOR CAREER DEVELOPMENT

- Jennifer Belluci

Admissions to Full-Time M.B.A. Program

To gain admission to the full-time M.B.A. program, an applicant must have a bachelor's degree from an accredited institution. Admissions decisions are based on an assessment of expected success in the program shown by the application materials and on space available. The Admissions Committee considers grade point average in all previous college-level work and also the grade-point average in the last sixty hours of coursework. Applications for admission to the M.B.A. program and official transcripts of all prior academic work should be submitted to the WVU Office of Admissions as early as possible. Applicants who have attended institutions other than WVU must request the registrar or records office of those institutions to forward a complete official transcript directly to the WVU Office of Admissions. The Graduate Management Admissions Test (GMAT) or the Graduate Record

Examination (GRE) is required and the Admissions Committee takes no action on an application for admission to the full-time program until the applicant submits a GMAT or GRE score. However, a GMAT score is preferred and is required to determine eligibility for meritorious scholarships. Each applicant must submit a resume with the application. Additionally, applicants are encouraged to submit a statement of purpose and no more than three letters of reference. The deadline for the full-time M.B.A. program is March 1st of each year.

Admissions to Executive M.B.A. Program

To gain admission to the executive M.B.A. program, an applicant must have a bachelor's degree from an accredited institution and a minimum of two years of full-time work experience post bachelor's degree. Admissions decisions are based on an assessment of expected success in the program shown by the application materials and on space available. The Graduate Management Admissions Test (GMAT) is required unless an applicant has a terminal degree. GMAT waivers may also be granted if the applicant has five or more years of professional work experience and an undergraduate GPA of 3.0 or better. Applicants must apply for the GMAT waiver; these requests are reviewed by the Admissions Committee. The applicant must have submitted an application to be considered for a GMAT waiver. Each applicant must submit a resume showing prior work experience. For applicants with less than five years of work experience, the GMAT and the undergraduate record provide the strongest indicators of success. For applicants with five or more years of experience, the Admissions Committee will place greater emphasis on the work history. For applicants with terminal degrees, the Admissions Committee may waive the GMAT requirement. Additionally, applicants are encouraged to submit a statement of purpose and no more than three letters of reference. The priority deadline for receipt of applications and transcripts in the College's Office of Graduate Programs is June 1 for the summer intake and July 1 for the fall intake, and December 1 is the priority deadline for the spring intake. Admission to the program is competitive and subject to space being available.

M.B.A. Program

The M.B.A. requires that the candidate achieve a cumulative grade point average of at least 3.0 on all work counting toward the graduate degree. A regular graduate student whose cumulative grade point average falls below 2.75 will be placed on probation. If the average is not brought up to 2.75 by the end of the following semester, the student will be suspended from the program. A grade below C in more than one course taken while enrolled as a graduate student will result in suspension from the program. In addition, the student must maintain a 3.0 average in all work counting toward the graduate degree.

M.B.A. Requirements

A minimum GPA of 3.0 is required in all courses

A grade of C or higher must be earned in all required courses		
BADM 511	Managerial Economics	3
BADM 512	Law, Ethics and Diversity	3
BADM 522	Business Research and Statistics	3
BADM 523	Decision Analysis	3
BADM 524	Financial Accounting	3
BADM 525	Marketing Management	3
BADM 527	Macroeconomic	3
BADM 528	Managerial Accounting	3
BADM 531	Operation/Supply Chain	3
BADM 532	Corporate Finance	3
BADM 534	Information Systems	3
BADM 535	Organizational Behavior	3
BADM 536	Leadership/Organization Change	3
BADM - Professiona Development Practicum 1		1
BADM - Professional Development Practicum 2		1
BADM 551	Global Planning and Strategy	3
BADM 562	International Business	3
Select one of the following electives:		3
ILR 543	Negotiation Strategy	
MKTG 440	Export Management	
FIN 510	Investments and Portfolio Management	
BADM 542	Personal Financial Planning	
Total Hours		**50**

M.B.A. SUGGESTED PLAN OF STUDY

First Semester	Hours
Summer	
BADM 511	3
BADM 522	3
BADM 535	3
	9

Second Semester	Hours
Fall	
BADM 512	3
BADM 523	3
BADM 524	3
BADM 527	3
BADM 528	3
Professional Develoment Practicum	1
	16

Third Semester	Hours
Spring	
BADM 525	3
BADM 531	3
BADM 532	3
BADM 536	3
BADM 562	3
Professional Development Practicum	1
	16

Fourth Semester	Hours
Summer	
BADM 535	3
BADM 551	3
Required elective	3
	9

Total credit hours: 50

Business Data Analytics Area of Emphasis Requirements

The Area of Emphasis in Business Data Analytics is intended to prepare MBA students to support the growing demand of expertise in dealing with big data. Students will be exposed to course work in business intelligence, data mining, statistical methods and best practices for presenting and implementing finds.

Course Requirements. In order to satisfy the requirements of the Area of Emphasis, a student must completed the required courses below. Note, that a cumulative GPA of 3.0 is required for graduation from the MBA program. The courses and grades from the Area of Emphasis will be counted towards a student's cumulative GPA (a C or better is required in courses, with an overall cumulative GPA of 3.0) in the MBA program.

BUSA 525	Business Statistical Methods 1	3
BUSA 510	Business Intelligence	3
BUSA 520	Business Data Management Inquiry	3
BUSA 535	Business Data-Mining	3
BUSA 550	Business Data Visualizaton	3
Total Hours		**15**

The MBA/EMBA students will be required to have a quantitative background to be eligible for this AoE. This could include degrees in STEM or have work experience where there is a significant quantitative work responsibilities.

Energy Finance Area of Emphasis Requirements

The Area of Emphasis in Energy Finance is intended to prepare MBA students to work in the growing energy industry. Students will be exposed to course work in finance, law and ethics and risk management as it pertains to the field of energy.

Course Requirements. In order to satisfy the requirements of the Area of Emphasis, a student must have completed the required courses with a passing grades. Note, that a cumulative GPA of 3.0 is required for graduation from the MBA program. The courses and grades from the Area of Emphasis will be counted towards a student's cumulative GPA in the MBA program.

FIN 530	Energy Financial Economics	3
FIN 531	Energy Law/Regulation/Ethics	3
FIN 532	Energy Financial Accounting	3
FIN 533	Energy Financial Risk Management	3
Total Hours		**12**

Finance Area of Emphasis Requirements

4 courses from the M.S. in Finance course offerings *	12
Total Hours	**12**

*   The Finance Area of Emphasis (AOE) is optional. If a student elects to complete the AOE, the requirements listed above must be completed in addition to the M.B.A. requirements.

Forensic Accounting and Fraud Examination Area of Emphasis Requirements

The Area of Emphasis in Forensic Accounting and Fraud Examination is intended to prepare MBA students to work in the growing field of white collar crime. Students will be exposed to course work in detection, prevention, examination/deterrence and remediation of white-collar crime.

Course Requirements. In order to satisfy the requirements of the Area of Emphasis, a student must have completed the required courses with a passing grade (a grade of C or better). Note, that a cumulative GPA of 3.0 is required for graduation from the MBA program. The courses and grades from the Area of Emphasis will be counted towards a student's cumulative GPA in the MBA program. The courses will be required for the Area of Emphasis in a prescriptive plan of study.

ACCT 581	Fraud Investigation	3
ACCT 582	Fraud Data Analysis	3
ACCT 583	Fraud: Criminology/Legal Issues	3
ACCT 584	Advanced Fraud Investigation	3
ACCT 591	Advanced Topics (FFE Foundations)	3
Total Hours		**15**

Human Resources Area of Emphasis Requirements

The Area of Emphasis in Human Resources is intended to prepare MBA students to develop knowledge in the field of human resources. Students will be exposed to course work in human resources and training and development.

Course Requirements. In order to satisfy the requirements of the Area of Emphasis, a student must have completed the required courses with a passing grade (a grade of C or better). Note, that a cumulative GPA of 3.0 is required for graduation from the MBA program. The courses and grades from the Area of Emphasis will be counted towards a student's cumulative GPA in the MBA program. The courses will be required for the Area of Emphasis in a prescriptive plan of study.

ILR 505	Employment Law	3
ILR 509	Talent Acquisition	3
ILR 543	Negotiation Strategy	3
ILR 546	Training and Development	3
Total Hours		**12**

Executive M.B.A. Requirements

BADM 611	Management Information Systems	3
BADM 612	Managerial and Team Skills	3
BADM 613	Macroeconomics	3

BADM 621	Business Research	3
BADM 622	Financial Statements Analysis	3
BADM 623	Strategy	3
BADM 631	Managerial Economics	3
BADM 632	Corporate Finance	3
BADM 633	Leadership	3
BADM 641	Decision Analysis for Executives	3
BADM 644	Legal Environment and Ethics	3
BADM 652	Marketing Strategy	3
BADM 653	Integrated Global Business	3
BADM 661	Executive Project 1	1
BADM 662	Executive Project 2	2
Choose two of the following:		6
BADM 638	Operation and Supply Chain Management	
BADM 651	Personal Financial Planning	
ILR 543	Negotiation Strategy	
MKTG 440	Export Management	
Total Hours		**48**

Executive M.B.A Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BADM 612	3	BADM 641	3	BADM 613	3
BADM 621	3	BADM 631	3	BADM 644	3
BADM 622	3	BADM 623	3		
	9		**9**		**6**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
BADM 652	3	BADM 633	3	Electives	6
BADM 632	3	BADM 653	3		
BADM 611	3	BADM 661	1		
		BADM 662	2		
	9		**9**		**6**

Total credit hours: 48

Business Data Analytics Area of Emphasis Requirements

The Area of Emphasis in Business Data Analytics is intended to prepare MBA students to support the growing demand of expertise in dealing with big data. Students will be exposed to course work in business intelligence, data mining, statistical methods and best practices for presenting and implementing finds.

Course Requirements. In order to satisfy the requirements of the Area of Emphasis, a student must completed the required courses below. Note, that a cumulative GPA of 3.0 is required for graduation from the MBA program. The courses and grades from the Area of Emphasis will be counted towards a student's cumulative GPA (a C or better is required in courses, with an overall cumulative GPA of 3.0) in the MBA program.

BUSA 525	Business Statistical Methods 1	3
BUSA 510	Business Intelligence	3
BUSA 520	Business Data Management Inquiry	3
BUSA 535	Business Data-Mining	3
BUSA 550	Business Data Visualizaton	3
Total Hours		**15**

The MBA/EMBA students will be required to have a quantitative background to be eligible for this AoE. This could include degrees in STEM or have work experience where there is a significant quantitative work responsibilities.

Energy Finance Area of Emphasis Requirements

The Area of Emphasis in Energy Finance is intended to prepare MBA students to work in the growing energy industry. Students will be exposed to course work in finance, law and ethics and risk management as it pertains to the field of energy.

Course Requirements. In order to satisfy the requirements of the Area of Emphasis, a student must have completed the required courses with a passing grades. Note, that a cumulative GPA of 3.0 is required for graduation from the MBA program. The courses and grades from the Area of Emphasis will be counted towards a student's cumulative GPA in the MBA program.

FIN 530	Energy Financial Economics	3
FIN 531	Energy Law/Regulation/Ethics	3
FIN 532	Energy Financial Accounting	3
FIN 533	Energy Financial Risk Management	3
Total Hours		**12**

PHD Business Administration-Accounting

Overview

The Ph.D. in Business Administration with a major in Accounting is designed to prepare qualified individuals for a career in scholarly accounting research and teaching at the university level. The doctoral program is offered to a relatively small, highly qualified, and motivated group of students who demonstrate the potential to become highly regarded scholars in the field. Doctoral students are expected to be in residence on a full-time basis throughout the duration of the program, and they will work closely with faculty on a one-on-one basis. The anticipated duration of the full-time residency is four years.

Highly Individualized Program

Each doctoral student is paired with a faculty member with similar research interests. The faculty member will work closely with the student and will serve as a research mentor throughout the duration of the program. Currently, the training, background, and interests of the doctoral faculty support behavioral and archival research in fraud, forensics, and ethics across the functional accounting areas of audit, financial, governmental, information systems, international, and managerial accounting. The individual plan of study for each candidate will be determined by the student, the faculty mentor, and the Ph.D. committee.

Admission Requirements

The following will be considered for admission into the program:

- A completed application received by December 1 is required to be considered for University fellowships. Completed applications received by February 1 of each year will be given full consideration for College fellowships and admission in the succeeding fall semester
- A master's degree or equivalent from an accredited university
- A statement of purpose regarding the PhD degree describing why the applicant is pursuing a PhD and the applicant's career aspirations upon completion of the degree
- A current résumé
- Three letters of reference
- Official copies of all university transcripts with cumulative GPA scores of 3.0 or better on all undergraduate courses and 3.25 on graduate courses (based on U.S. standard of 4.0)
- An official GMAT (Graduate Management Admissions Test) score is preferred. However, in some cases the GRE (Graduate Record Examination) may be accepted. (High GMAT/GRE scores are required for admission to the PhD Program in Business Administration.)
- The College of Business & Economics TOEFL requirement for PhD in Business Administration applicants is higher than the University's. Students whose first language is not English must obtain a score of at least 100 on the TOEFL-ibt (250 under the old computer-based exam or 600 under the paper-based exam) or a score of at least 7.0 on the IELTS test to be admitted to graduate study. Go to www.toefl.org or www.ielts.org to register and find out more about the test. This is a university requirement.

  Applicants who have received a high school diploma or a bachelor's degree from an accredited college or university in the United States, the United Kingdom, or other predominately English-speaking country usually are exempt from the TOEFL/IELTS requirement. However, applicants only having a master's degree from one of these countries must still provide acceptable TOEFL or IELTS scores.

The entrance requirements are minimum requirements for regular admission. Since there is limited space in each year's class, meeting these entrance requirements does not guarantee admission. Applicants will not be accepted on a provisional basis.

Doctor of Philosophy

The requirements for a Doctor of Philosophy with a major in Accounting includes successful coursework, a comprehensive examination, a dissertation proposal, and a dissertation defense.

Additionally, candidates are required to work under the guidance of tenure-track research-oriented faculty as graduate research and teaching assistants and are required to teach four courses after successfully passing their comprehensive exams. The program requires full-time enrollment and on-campus attendance, and requires attendance and participation in research workshops and presentations.

The plan of study for each candidate is individualized by the faculty mentor and student, based upon the nature and objectives of the selected research stream. This plan is to be developed by the student and the faculty mentor during the first year.

CURRICULUM REQUIREMENTS

Research Hours		
ACCT 797	Research	12
Dissertation Hours		
ACCT 798	Thesis or Dissertation	15
Accounting Content Courses		
ACCT 711	Behavioral Accounting Research	3
ACCT 712	Archival Accounting Research	3
ACCT 713	Forensics Accounting Research	3
ACCT 795	Independent Study	3
MANG 710	Philosophy of Research	3
Methods and Statistics Courses*		
ECON 721	Mathematical Economics	3
ECON 725	Econometrics 1	3
ECON 726	Econometrics 2	3
Choose 2 of the following:		6
ECON 727	Econometrics 3	
STAT 513	Design of Experiments	
STAT 541	Applied Multivariate Analysis	
STAT 545	Applied Regression Analysis	
STAT 551	Nonparametric Statistics	
Minor Area Courses		15
Qualifying Exams		
Comprehensive Proposal Defense		
Dissertation Defense		
Total Hours		**72**

* A minimum of fifteen semester hours of graduate coursework is required in graduate statistical research methods and analysis. Graduate statistic courses offered by the Statistics, Psychology, and Management departments may fulfill this requirement.

SEMINAR

The first doctoral seminar provides an introduction to research and the philosophy of research. This course will be taken with other business doctoral students within the college. Then, each student must take the three accounting focused seminars: Behavioral Research, Archival Research, and Fraud and Forensic Accounting. Each course covers seminal research within the functional areas of accounting.

INDEPENDENT STUDY

One graduate independent study course is required. The course will be centered on a research project selected in conjunction with the faculty mentor.

MINOR AREA

A minimum of fifteen semester hours of graduate coursework is required in a minor supporting area. A minor area is one that is outside, but complementary to, the major area of accounting and the research in which the candidate is interested, e.g., information systems, finance, economics, public finance, psychology, sociology, operations management, law, and industrial engineering. The minor area focus and courses will be selected with the faculty mentor.

WORKSHOPS

Throughout the student's tenure at West Virginia University, the faculty expect the doctoral students to attend the accounting workshops. These workshops consist of internal (faculty and students) and external scholars invited to present their research. Doctoral students are expected to read the research papers carefully and are encouraged to participate in the workshop by asking questions and making comments.

COMPREHENSIVE EXAMINATION

At the end of the second year and after successfully completing at least 39 credit hours of course work from the plan of study, which must include all accounting graduate seminars, each student is required to take a written comprehensive examination. This two-day exam will cover course-related topics and materials from the candidate's plan of study.

Upon successful completion of the comprehensive exam, candidates are considered to be ABD, or "all but dissertation". In the event that all or parts of the exam are not considered to be successful, the candidate may be asked either to re-take select courses and the entire exam or re-take select deficient parts of the exam. A student may retake part of all of the examination only once, and if their efforts are still considered to be unsuccessful, will be asked to leave the doctoral program.

DISSERTATION PROPOSAL

During the third year after a successful comprehensive examination, the doctoral candidate must select a dissertation committee comprised of five members, one of which will be outside of the Accounting Department. The candidate will develop a dissertation proposal through work with the Chair of the Committee (presumably the faculty mentor) and the Committee members. Once the Chair and Committee members feel that the candidate and the research idea is ready, a public presentation of the dissertation proposal is to be made by the candidate. The Chair and Committee will take note of comments, suggestions, and critiques by those in attendance, and make certain requirements of alteration to the candidate to the proposal. Once the alterations to the proposal are incorporated by the candidate, the Chair and the Committee will approve the candidate's dissertation proposal.

After a successful dissertation proposal the candidate may begin the specific research related to the dissertation. It is recommended that the candidate continue to work closely with the Chair and Committee and keep them appraised of progress towards completion of the dissertation, and to timely notify the Chair and Committee of any unforeseen difficulties as it relates to the dissertation process.

DISSERTATION DEFENSE

After a successfully executing the dissertation proposal and writing the results in a manner appropriate and consistent to the accounting academe and the University guidelines for dissertations, the candidate must defend the dissertation. The dissertation defense should occur during the fourth year, and is conducted in a formal setting with the Chair and the Committee. The candidate will present the information, field questions from the Chair and the Committee, and make adjustments to the dissertation as deemed necessary by the Chair in working with the Committee.

If the changes are minor in nature, the Chair and Committee may approve the dissertation contingent upon making the minor changes. If the changes are substantial, the Chair and Committee may require the candidate to make corrections and defend again at a later date.

Upon a successful dissertation defense, the candidate must follow the University Electronic Thesis and Dissertation (ETD) guidelines for electronic publication. Once the dissertation has been successfully approved by the University, the candidate is eligible for formal graduation ceremonies.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
MANG 710	3	ACCT 711	3	Qualifying Examination	
ECON 721	3	ECON 725	3		
Statistics Course	3	Statistics Course	3		
	9		**9**		**0**

Second Year

Fall	Hours	Spring	Hours
ACCT 712	3	ACCT 713	3
ECON 726	3	Minor Area Course 2	3
Minor Area Course 1	3	Minor Area Course 3	3
	9		**9**

Third Year

Fall	Hours	Spring	Hours
ACCT 795	3	MKTG 797	6
Minor Area Course 4	3	MKTG 798	3

Minor Area Course 5	3 Dissertation Proposal Defense		
	9	**9**	
Fourth Year			
Fall	**Hours Spring**	**Hours Summer**	**Hours**
ACCT 797	3 ACCT 797	3 Dissertation Defense	
ACCT 798	6 Acct 798	6	
	9	**9**	**0**

Total credit hours: 72

PHD Business Administration-Finance

Overview

The Ph.D. in Business Administration with a major in Finance is a full-time, in-residence program lasting 4-5 years. It is a relatively small, high-quality program. The primary goal of the program is to prepare students for careers in research and teaching at comprehensive universities. The program of study requires the satisfactory completion of coursework, a first year summer research paper, a comprehensive examination, and dissertation research. Students will take courses in various finance topics, economics, econometrics and research methods, and statistics. The program distinguishes itself with small classes and an "open-door" policy which allows for close interaction between students and faculty, with plentiful opportunities to discuss ideas and work on joint research projects. Early involvement of students in faculty-directed research projects provide students with the opportunity to develop a pipeline of research while in their doctoral program of study. Our aim is that all students will have the opportunity to present their work at academic conferences and also have at least one published scholarly paper by the time they graduate. Students also acquire teaching experience through teaching undergraduate finance courses during the third and fourth years of the program.

Admission Requirements

Students who have an M.S. in finance or an MBA with concentration in finance from an accredited academic institutionn can enter into the Ph.D. program directly. Alternatively, if students lack sufficient academic background in finance, our M.S. in finance program will serve as an essential preliminary step towards a Ph.D. degree. The following will be considered for admission into the program:

- A completed application received by December 1 is required to be considered for University fellowships. Completed applications received by February 1 of each year will be given full consideration for College fellowships and admission in the succeeding fall semester
- A Bachelor's degree or equivalent from an accredited university
- A statement of purpose regarding the PhD program describing why the applicant is pursuing a PhD in Business Administration with a major in finance and the applicant's career aspirations upon completion of the degree
- A current résumé
- Three letters of reference
- Official copies of all university transcripts with cumulative GPA scores of 3.0 or better on all undergraduate courses and 3.25 on graduate courses (based on U.S. standard of 4.0)
- An official Graduate Management Admissions Test (GMAT) score is preferred. However, in some cases a GRE (Graduate Record Examination) will be accepted. (A High GMAT/GRE score is required for admission to the PhD Program in Business Administration with a major in finance, usually a GMAT score of 650 or above.)
- The College of Business & Economics TOEFL requirement for PhD in Business Administration applicants is higher than the University's. Students whose first language is not English must obtain a score of at least 100 on the TOEFL-ibt (250 under the old computer-based exam or 600 under the paper-based exam) or a score of at least 7.0 on the IELTS test to be admitted to graduate study. Go to www.toefl.org or www.ielts.org to register and find out more about the test. This is a university requirement.

  Applicants who have received a high school diploma or a bachelor's degree from an accredited college or university in the United States, the United Kingdom, or other predominately English-speaking country usually are exempt from the TOEFL/IELTS requirement. However, applicants only having a master's degree from one of these countries must still provide acceptable TOEFL or IELTS scores.

These entrance requirements are minimum requirements for regular admission. Since there is limited space in each year's class, meeting these entrance requirements does not guarantee admission. Applicants will not be accepted on a provisional basis.

Program Requirements

The program is designed to be completed in four or five years, depending on the student's background, interests, and dissertation progress. The program of study requires the satisfactory completion of coursework plus dissertation research. Students will take courses in economic theory, econometrics, and finance, followed by a comprehensive examination and dissertation research.

The Ph.D. program in business administration at WVU is a full-time graduate program and requires at least three years in residence. The residency requirement is important not only because the doctoral degree has aspects of an apprenticeship which can only be accomplished on campus by working directly with the business faculty but because teaching on campus is a requirement of the program.

To prepare Ph.D. candidates for eventual university teaching responsibilities, students are expected to teach after their second year in the program. They will work closely with faculty to ensure quality instruction and receive feedback on their development as university-level teachers.

Doctor of Philosophy

Our program is built around an applied curriculum with a strong theoretical and quantitative foundation. The program involves doctoral level coursework, a first year research paper, and presentation to faculty, passing a finance comprehensive exam, and defending a dissertation.

CURRICULUM REQUIREMENTS

ECON 701	Advanced Micro-Economic Theory 1	4
ECON 702	Advanced Macro-Economic Theory 1	3
ECON 711	Advanced Micro-Economic Theory 2	4
ECON 721	Mathematical Economics	3
ECON 725	Econometrics 1	3
ECON 726	Econometrics 2	3
ECON 727	Econometrics 3	3
FIN 735	Portfolio Theory	3
FIN 736	Asset Pricing	3
FIN 741	Corporate Finance Seminar	3
FIN 742	Investments Seminar	3
FIN 743	Advanced Topics Seminar	3
FIN 797	Research	18
FIN 798	Dissertation	18
1st Year Research Paper		
2nd Year Research Paper		
Comprehensive Exam		
Dissertation Proposal Defense		
Dissertation Defense		
Total Hours		**74**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
ECON 701	4	ECON 711	4	Student Research Paper[*]	
ECON 721	3	ECON 725	3		
FIN 735	3	FIN 736	3		
	10		**10**		**0**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
ECON 702	3	ECON 727	3	Finance Comprehensive Examination	
ECON 726	3	FIN 742	3		
FIN 741	3	FIN 743	3		
	9		**9**		**0**

Third Year

Fall	Hours	Spring	Hours
FIN 797	6	FIN 797	6
FIN 798	3	FIN 798	3
	9		**9**

Fourth Year

Fall	Hours Spring	Hours
FIN 797	3 FIN 797	3
FIN 798	6 FIN 798	6
	9	**9**

Total credit hours: 74

PHD Business Administration-Management

Overview

The Ph.D. in Business Administration with a major in Management is a full-time, in-residence program lasting 4-5 years. It is a relatively small, high-quality program. Generally 2-3 new students are admitted each Fall. The primary goal of the program is to prepare students for careers in research and teaching at comprehensive universities. The program of study requires the satisfactory completion of coursework, a comprehensive examination, and dissertation research. Students will take courses in various management topics, research methods, and statistics. Small classes and an "open-door" policy allow for close interaction between students and faculty, with frequent opportunities to discuss ideas and work on joint research projects. We involve our students in research projects early, so that by the time students complete the Ph.D., they have the experience of both presenting their work at academic conferences and having one or more research articles accepted in academic journals. Students also acquire teaching experience through teaching undergraduate management courses on several occasions throughout their stay in the program.

FACULTY

COORDINATOR

- Mark Gavin - Ph.D. (Purdue University)
  MgmtPhD@mail.wvu.edu or (304)293-7952

PROFESSORS

- Mark Gavin - Ph.D. (Purdue University)
- Usha Haley - Ph.D. (New York University)

ASSOCIATE PROFESSORS

- Gerald Blakely - Ph.D. (University of North Carolina at Chapel Hill)
- David Dawley - Ph.D. (Florida State University)
- Jodi Goodman - Ph.D. (Georgia Tech University)
- Joyce Heames - Ph.D. (University of Mississippi)
- Jeff Houghton - Ph.D. (Virginia Tech University)
- Curt Moore - Ph.D. (Texas Tech University)
- Abhishek Srivastava - Ph.D. (University of Maryland)
- Edward Tomlinson - Ph.D. (Ohio State University)

ASSISTANT PROFESSORS

- Ajay Aluri - Ph.D. (Oklahoma State University)
- Olga Bruyaka - Ph.D. (Jean Moulin University Lyon)
- Jennifer Sexton - Ph.D. (Florida State University)
- Miles Zachary - Ph.D. (Texas Tech University)

Admission Requirements

The following will be considered for admission into the program:

- A completed application received by December 1 is required to be considered for University fellowships. Completed applications received by February 1 of each year will be given full consideration for College fellowships and admission in the succeeding fall semester
- A Bachelor's degree or equivalent from an accredited university
- A Master's degree or from an accredited university
- A statement of purpose regarding the PhD program describing why the applicant is pursuing a PhD in Business Administration and the applicant's career aspirations upon completion of the degree
- A current résumé

- Three letters of reference
- Official copies of all university transcripts with cumulative GPA scores of 3.0 or better on all undergraduate courses and 3.25 on graduate courses (based on U.S. standard of 4.0)
- An official Graduate Management Admissions Test (GMAT) or Graduate Records Examination (GRE) score. (A High GMAT/GRE score is required for admission to the PhD Program in Business Administration.)
- The College of Business & Economics TOEFL requirement for PhD in Business Administration applicants is higher than the University's. Students whose first language is not English must obtain a score of at least 100 on the TOEFL-ibt (250 under the old computer-based exam or 600 under the paper-based exam) or a score of at least 7.0 on the IELTS test to be admitted to graduate study. Go to www.toefl.org or www.ielts.org to register and find out more about the test. This is a university requirement.
- Applicants who have received a high school diploma or a bachelor's degree from an accredited college or university in the United States, the United Kingdom, or other predominately English-speaking country usually are exempt from the TOEFL/IELTS requirement. However, applicants only having a master's degree from one of these countries must still provide acceptable TOEFL or IELTS scores.
- Writing samples
- Other application materials as required by WVU

The entrance requirements are minimum requirements for admission. Since there is limited space in each year's class, meeting these entrance requirements does not guarantee admission. Applicants will not be accepted on a provisional basis.

Contact Information

For additional questions concerning the program, please contact:
Dr. Mark Gavin

Coordinator, Management Ph.D. Program

Email: MgmtPhd@mail.wvu.edu

Office: (304) 293-7952

Website: http://be.wvu.edu/phd_business/index.htm

Doctor of Philosophy

The coursework in management is designed to provide a theoretical, methodological, and statistical foundation for critically evaluating extant research and conducting independent research. Students will take six content courses in management and six mandatory research methods and statistics courses. Additional requirements include a research paper in the first summer and preparing for and taking comprehensive examinations in the second summer. Subsequent to completing coursework and passing comprehensive examinations, students will be admitted to doctoral candidacy. Remaining hours will focus on completing a dissertation.

MAJOR REQUIREMENTS

Methods and Statistics Courses - all required		18
MANG 710	Philosophy of Research	
MANG 711	Research Methods	
EDP 613	Statistical Methods 1	
or STAT 511	Statistical Methods 1	
EDP 614	Statistical Methods 2	
or STAT 512	Statistical Methods 2	
PSYC 612	Multivariate Analysis	
or STAT 541	Applied Multivariate Analysis	
MANG 713	Multivariate Analysis and Structural Equation Modeling	
Management Content Seminars (6 of the following courses required))		18
MANG 720	Research Seminar in Human Resources Management	
MANG 730	Research Seminar in Leadership	
MANG 740	Social Psychology and Group Process	
MANG 760	Organizational Theory	
MANG 780	Current Topics in Organizational Behavior	
MANG 770	Global Strategy and Theory	
MANG 785	Current Topics in Strategy	
Qualifying Paper		
Comprehensive Exam		

Dissertation Proposal Defense				
Dissertation Defense				
MANG 797 Research				12
MANG 798 Dissertation				24
Total Hours				**72**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours		
MANG 710	3	MANG 711	3		
STAT 511	3	STAT 512	3		
Management Content Seminar	3	Management Content Seminar	3		
	9		**9**		

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
STAT 541	3	MANG 713	3	Comprehensive Exam	
Management Content Seminar	6	Mangement Content Seminar	6		
	9		**9**		**0**

Third Year

Fall	Hours	Spring	Hours		
MANG 797	3	MANG 797	3		
MANG 798	6	MANG 798	6		
	9		**9**		

Fourth Year

Fall	Hours	Spring	Hours		
MANG 797	3	MANG 797	3		
MANG 798	6	MANG 798	6		
	9		**9**		

Total credit hours: 72

PHD Business Administration-Marketing

Overview

The Ph.D. in Business Administration with a major in Marketing is a full-time, residential program that seeks to prepare students to contribute to the marketing discipline though the discovery, development, and dissemination of knowledge. The goal is to strive for continuous improvement in training world-class researchers and college professors who are able to conduct independent, original academic research and teach university-level courses in their major areas of study.

Admission Requirements

The following will be considered for admission into the program:

- A completed application received by December 1 is required to be considered for University fellowships. Completed applications received by February 1 of each year will be given full consideration for College fellowships and admission in the succeeding fall semester
- A master's degree or equivalent from an accredited university
- A statement of purpose regarding the PhD program describing why the applicant is pursuing a PhD in Business Administration and the applicant's career aspirations upon completion of the degree
- A current résumé
- Three letters of reference
- Official copies of all university transcripts with cumulative GPA scores of 3.0 or better on all undergraduate courses and 3.25 on graduate courses (based on U.S. standard of 4.0)
- An official Graduate Management Admissions Test (GMAT) score is preferred. However, in some cases a GRE (Graduate Record Examination) may be accepted. (A High GMAT/GRE score is required for admission to the PhD Program in Business Administration.)
- The College of Business & Economics TOEFL requirement for PhD in Business Administration applicants is higher than the University's. Students whose first language is not English must obtain a score of at least 100 on the TOEFL-ibt (250 under the old computer-based exam or 600 under the paper-based exam) or a score of at least 7.0 on the IELTS test to be admitted to graduate study. Go to www.toefl.org or www.ielts.org to register and find out more about the test. This is a university requirement.
- Applicants who have received a high school diploma or a bachelor's degree from an accredited college or university in the United States, the United Kingdom, or other predominately English-speaking country usually are exempt from the TOEFL/IELTS requirement. However, applicants only having a master's degree from one of these countries must still provide acceptable TOEFL or IELTS scores.

The entrance requirements are minimum requirements for regular admission. Since there is limited space in each year's class, meeting these entrance requirements does not guarantee admission. Applicants will not be accepted on a provisional basis.

Doctor of Philosophy
MAJOR REQUIREMENTS

Research Hours		
MKTG 797	Research	15
MKTG 798	Thesis or Dissertation	15
Marketing Content Courses		
MKTG 700	Seminar on Marketing Theory	3
MKTG 710	Philosophy of Research	3
MKTG 711	Advanced Topics in Marketing 1	3
MKTG 720	Seminar in Buyer Behavior	3
MKTG 721	Advanced Topics in Marketing 2	3
MKTG 730	Advanced Marketing Research	3
MKTG 740	Seminar in Marketing Strategy and Policy	3
Methods and Statistics Courses		12
MKTG 713	Multivariate Data Analysis	
Statistical Methods Courses [*]		
Minor Area Courses (3)		9
Dissertation Proposal Defense		
Qualifying Exam		
Comprehensive Exam		
Dissertation Proposal Defense		
Dissertation Defense		
Total Hours		**72**

[*]   Not specific marketing courses - They can be taken from several different disciplines and must be approved by the student's committee.

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
MKTG 700	3	MKTG 711	3
MKTG course - Statistical Methods 1	3	MKTG 720	3
MKTG 710	3	MKTG course - Statistical Methods 2	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
MKTG 721	3	MKTG 730	3
MANG 713	3	MKTG 740	3
Minor Area Course 1	3	Minor Area Course 2	3
	9		**9**

Third Year

Fall	Hours	Spring	Hours
MKTG. course - Statistical Methods 3	3	MKTG 798	3
Minor Area Course 3	3	MKTG 797	6
MKTG 798	3	Dissertation Proposal Defense	
	9		**9**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
MKTG 798	6	MKTG 798	6	Dissertation Defense	
MKTG 797	3	MKTG 797	3		
	9		**9**		**0**

Total credit hours: 72

Economics

Degrees Offered

- Master of Arts
- Doctor of Philosophy

The master of arts and doctor of philosophy degrees in economics enable students to broaden and refine their knowledge of the concepts and methods of economic analysis. These programs are designed to prepare students for careers in higher education, government, and business. Student programs are planned with the assistance of a faculty advisor and approval of the director of graduate programs. Additional information about the graduate programs in economics and the regulations and requirements pertaining to them is available at http://www.be.wvu.edu/phd_economics/index.htm. Students are bound by these regulations and requirements, as well as those of the College of Business and Economics.

Prerequisites

Applicants with a bachelor's degree may apply directly to the Ph.D. program. To be admitted as a regular M.A. or Ph.D. student, applicants must have a grade point average of 3.0 or better for all undergraduate work completed. Applicants must also complete the general aptitude portion of the Graduate Record Examination (GRE) and receive a minimum combined score of 300 for the verbal and quantitative sections and a minimum score of 3.0 for the analytical writing section. International students must submit their scores on the Test of English as a Foreign Language (TOEFL) or, alternatively, the scores on the International English Language Testing System (IELTS). In addition, applicants must have completed at least one semester of each of the following courses: intermediate microeconomic theory, intermediate macro-economic theory, calculus, and statistics. Applicants not meeting these entrance requirements may be admitted on a provisional and/or deficiency basis, subject to certain performance conditions during their first semester in residence.

Assistantships

Virtually all full-time students newly accepted into the Ph.D. program are also offered a graduate assistantship, which includes a cash stipend and tuition waiver. Graduate assistants engage in research and teaching activities under the supervision of a faculty member. Assistantships are evaluated and renewed each year for four years, so long as the student remains full-time, in good standing, and performs duties satisfactorily. A fifth year is also typically available to full-time students who are making satisfactory progress on their dissertations. The faculty of the Department of Economics also nominates outstanding applicants for university fellowships. Special scholarships are available on a competitive basis to minority students. For further information, see http://www.be.wvu.edu/phd_economics/prospective.htm.

Academic Standards

To qualify for a graduate degree in economics, students must earn a cumulative grade point average (GPA) of 3.0 or better for all courses completed as a graduate student at WVU. A regular graduate student in economics whose cumulative GPA falls below 3.0 (B) upon completion of the first nine hours of graduate study is not in good-standing and will be placed on probation at the end of the semester in which the GPA fell below 3.0. Such a student, placed on probation, who fails to raise his or her cumulative GPA to 3.0 by the end of the semester succeeding that in which his or her GPA fell below 3.0 is subject to suspension from the program at the end of that probationary semester.

Other academic reasons for suspension from the program include failing grades on more than fifty percent of the coursework taken in any semester, a third failure on either a micro-economic theory or macroeconomic theory comprehensive examination, a fourth failure on comprehensive field examinations, or failure to complete all degree requirements within the specified time limits.

FACULTY
CHAIR
- Clifford Hawley - Ph.D. (Duke University)
  Professor of Economics

ASSOCIATE PROFESSORS
- Arabinda Basistha - Ph.D. (University of Washington, Seattle)
  Monetary
- Brian J. Cushing - Ph.D. (University of Maryland)
  Urban and Regional Economics, Econometrics, Public Finance
- John Deskins - Ph.D. (University of Tennessee)
  Director Bureau of Business and Economics Research
- Stratford M. Douglas - Ph.D. (University of North Carolina)
  Econometrics, Industrial Organization, Corporate Finance
- Donald Lacombe - Ph.D. (Florida State University)
- Joshua Hall - Ph.D. (West Virginia University)
  Applied Microeconomics
- Brad Humphreys - Ph.D. (Johns Hopkins University)
  Sports Economics & Economics of Gambling
- Shuichiro Nishioka - Ph.D. (University of Colorado at Boulder)
  International Trade & Economic Development
- Jane Ruseski - Ph.D. (Johns Hopkins University)
  Associate Director Bureau of Business & Economic Research
- Feng Yao - Ph.D. Oregon State U.
- Andrew Young - Ph.D. (Emory University)

PROFESSORS
- Roger Congleton - Ph.D. (Virginia Polytechnic Institute and State Univesity)
  Public Choice
- Clifford B. Hawley - Ph.D. (Duke University)

ASSISTANT PROFESSORS
- Pedro Bento - Ph.D. (University of Toronto)
  Macroeconomics
- Adam Nowak - Ph.D. (Arizona State University)
- Eric Olson - Ph.D. (University of Alabama)
  Macroeconomics, Monetary Policy & Financial Economics

- Amanda Ross - Ph.D. (Syracuse University)
  Urban Economics, Public Finance, Real Estate Economics
- Dongwoo Yoo - Ph.D. (Ohio State University)

ADJUNCT ASSOCIATE PROFESSOR

- Ashok Abbott - Ph.D. Virginia Tech

VISITING ASSISTANT PROFESSOR

- Crystal Wong - Ph.D. Univ. of Washington

ADJUNCT ASSISTANT PROFESSOR

- Geoffrey Lea - Ph.D. George Mason Univ.

Admissions

The current policy and practice of the Department of Economics is not to accept applications for the Master of Arts degree. Instead, all students who receive a Master of Arts in Economics have first been admitted into the Doctor of Philosophy in Economics program with the intention of earning a doctorate. Those who receive the Masters degree have done so either as a "milepost" on their way to the Ph.D., or as a degree in lieu of the Ph.D. when they have left the Ph.D. program.

Economics Master of Arts Requirements

Overall 3.0 GPA required

ECON 701	Advanced Micro-Economic Theory 1	4
ECON 702	Advanced Macro-Economic Theory 1	3
ECON 711	Advanced Micro-Economic Theory 2	4
ECON 712	Advanced Macro-Economic Theory 2	3
ECON 721	Mathematical Economics	3
ECON 723	Dynamic Methods of Economics	1
ECON 725	Econometrics 1	3
ECON 726	Econometrics 2	3
Electives		6
Select one of the following		7
Thesis Option		
ECON 795	Independent Study	
Final Oral Examination		
Non-Thesis Option		
Complete two 700-level Field of Study courses		
ECON 795	Independent Study	
Research paper		
Total Hours		**37**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
ECON 701	4	ECON 711	4
ECON 702	3	ECON 712	3
ECON 721	3	ECON 723	1
		ECON 725	3
	10		**11**

Second Year

Fall	Hours	Spring	Hours
ECON 726	3	Select one of the following	7
Elective	3	Thesis Option	
Elective	3	ECON 795 (7 credits)	
		Final Oral Examimation	
		Non-Thesis Option	

700-level concentration courses (6 credits)	
ECON 795 (1 credit/Research Paper)	
9	**7**

Total credit hours: 37

Doctor of Philosophy

The Ph.D. degree is not awarded for the mere accumulation of course credits nor for the completion of the specified residence requirements. At least four years of full-time graduate work beyond the baccalaureate degree are usually required to complete the doctorate. A minimum of two consecutive semesters in actual residence as a full-time graduate student is required.

CURRICULUM REQUIREMENTS

Minimum 3.0 GPA required

Core Courses		
ECON 701	Advanced Micro-Economic Theory 1	4
ECON 702	Advanced Macro-Economic Theory 1	3
ECON 709	Research Design and Methodology	1
ECON 711	Advanced Micro-Economic Theory 2	4
ECON 712	Advanced Macro-Economic Theory 2	3
ECON 721	Mathematical Economics	3
ECON 723	Dynamic Methods of Economics	1
ECON 725	Econometrics 1	3
ECON 726	Econometrics 2	3
ECON 727	Econometrics 3	3
Complete two required Area of Emphasis		12
700-level ECON electives (minimum grade of B required)		6
Dissertation		
Total Hours		**46**

Comprehensive Examinations

Students must pass written comprehensive examinations in microeconomic theory, in macroeconomic theory, and in two fields. For detailed rules, see http://www.be.wvu.edu/phd_economics/rulesregulations.htm.

Candidacy and Dissertation

When an applicant has passed the written comprehensive examinations, the applicant will be formally promoted to candidacy for the Ph.D. degree. The candidate must submit a dissertation pursued under the supervision of a member of the graduate faculty in economics on some problem in the area of the candidate's major interest. The dissertation must present the results of the candidate's individual investigation and must embody a definite contribution to knowledge. It must be approved by a committee of the graduate faculty in economics. After approval of the candidate's dissertation and satisfactory completion of other graduate requirements, a final oral examination on the dissertation is required.

Each Ph.D. candidate is required to present a dissertation proposal to the graduate director after approval by at least three members of his or her dissertation committee including the chairperson. This proposal will include a statement of the problem (topic summary), a preliminary survey of the literature, a description of the research methodology, and other pertinent material. With the approval of the graduate director, the student is then required to present the proposal in a faculty-student seminar. Credit for dissertation research and writing is available under ECON 797, but only if the student has a dissertation chairperson and an approved topic.

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
ECON 701	4	ECON 711	4
ECON 702	3	ECON 712	3
ECON 721	3	ECON 723	1
		ECON 725	3
	10		**11**

Second Year

Fall	Hours Spring		Hours
ECON 726	3 ECON 727		3
AOE 1 Course 1[*]	3 AOE 1 Course 2[*]		3
AOE 2 Course 2[*]	3 AOE 2 Course 2[*]		3
	9		**9**

Third Year

Fall	Hours
ECON 709	1
Elective Course 1[**]	3
Elective Course 2	3
	7

Total credit hours: 46

[*] Six semester hours (or the equivalent) must be taken in each of the student's two Areas of Emphasis. The Areas of Emphasis offered by the Department are international economics, monetary economics, public economics, regional and urban economics, and resource economics. Other fields, conducted in cooperation with other units on campus, may possibly be approved in unusual cases. Only one of the Areas of Emphasis may be in an outside area; selection must be approved by the graduate economics faculty.

[**] Students must complete two additional three-hour 700-level elective courses in Economics in addition to their core courses, field courses, ECON 795, and ECON 797.

Health Economics Area of Emphasis Requirements

ECON 765	Health Economics 1	3
ECON 766	Health Economics 2	3
Comprehensive Field Examination [*]		
Total Hours		**6**

[*] Comprehensive field exams will be required in June immediately following completion of both Econ 765 and Econ 766.

International Economics Area of Emphasis Requirements

Select 2 of the following		6
ECON 751	International Trade	
ECON 752	International Macro-Economics	
ECON 754	Comparative Economic Systems	
ECON 755	Development Economics	
Total Hours		**6**

Monetary Economics Area of Emphasis Requirements

ECON 731	Monetary Economics 1	3
ECON 732	Monetary Economics 2	3
Total Hours		**6**

Public Economics Area of Emphasis Requirements

Select 2 of the following		6
ECON 741	Public Economics 1	
ECON 742	Public Economics 2	
ECON 743	State and Local Public Economics	
Total Hours		**6**

Regional and Urban Economics Area of Emphasis Requirements

ECON 761	Advanced Regional Economics	3

ECON 762	Advanced Urban Economics	3
Total Hours		**6**

Resource Economics Area of Emphasis Requirements

ARE 703	Advanced Natural Resource Economic Theory	3
ARE 710	Advanced Environmental Economics	3
Total Hours		**6**

Finance

Degree Offered

- Master of Science in Finance with an optional Area of Emphasis in Energy

The West Virginia University is a CFA® Institute Partner School through the M.S. Finance program. Program graduates are prepared to sit for examination for the Chartered Financial Analyst designation and graduates boast a high pass rate on all three testing levels.

The M.S. Finance program is ideal for potential candidates with undergraduate degrees in accounting, finance, engineering, mathematics, physics, geology, or economics, or those with industry experience and the drive to be successful. M.S. Finance graduates, especially those earning the Chartered Financial Analyst credential, enjoy careers with leadership positions across the gamut of financial positions. This includes investment banking positions, portfolio management, financial analyst, fund management, and corporate finance positions, among others.

The optional area of emphasis in Energy Finance prepares graduates for leadership careers in the energy sector. This area of emphasis is part of West Virginia University's Shale Gas Initiative and offers B-School graduates entre' into the energy sector and Energy Sector geologists, engineers, and other practitioners the business acumen for energy sector advancement into leadership and decision-making positions.

FACULTY

COORDINATOR

- Paul J. Speaker - Ph.D. (Purdue University)
  Corporate finance, Public sector financial management, Business valuation, Business of forensics

PROFESSORS

- K. Victor Chow - Ph.D. (University of Alabama), C.F.A.
  Corporate Finance, Portfolio Management
- William B. Riley - Ph.D. (University of Arkansas)
  Investments, Capital Markets

ASSOCIATE PROFESSORS

- Ashok Abbott - Ph.D. (Virginia Polytechnic Institute and State University)
  Financial Institutions, Corporate Finance, Mergers and Acquisitions
- Alex Kurov - Ph.D. (State University of New York, Binghamton), C.F.A.
  Financial Market Microstructure, Futures Markets
- Costanza Meneghetti - Ph.D. (Georgia State University)
  Corporate Finance, Hedge Funds
- Terry L. Rose - Ph.D. (University of Illinois)
  Insurance, Risk Management
- Paul J. Speaker - Ph.D. (Purdue University)
  Corporate Finance, Public Sector Financial Management, Business Valuation, Business Forensics

ASSISTANT PROFESSORS

- Naomi Boyd - Ph.D. (The George Washington University)
  Financial Market Microstructure, Behavioral Finance
- Ann Marie Hibbert - Ph.D. (Florida International University)
  International Finance, Asset Pricing, Behavioral Finance
- Bingxin Li - Ph.D. (University of Houston)
  Energy finance, Investments, Risk management

TEACHING ASSISTANT PROFESSOR

- Frank DeGeorge, C.P.A. - M.S.A. (Duquesne University)
  Financial Statement Analysis

Admission

To gain admission to the M.S. in finance program, an applicant must have a bachelor's degree from an accredited institution. Admissions decisions are based on an assessment of expected success in the program shown by the application materials and according to space available. The Admissions Committee considers grade point average in all previous college-level work and also the grade point average in the last sixty hours of coursework. The Graduate Management Admissions Test (GMAT) is required and the Admissions Committee takes no action on an application for admission to the full-time program until the applicant submits a GMAT score. Each applicant must submit a resume with the application. Additionally, applicants are encouraged to submit a statement of purpose and two letters of reference. Each applicant will be interviewed either in person or by phone prior to admission. Provisional admissions are very rare and will be evaluated on a case-by-case basis.

The following prerequisite courses may be taken at other institutions but must be successfully completed prior to entering the M.S. in finance program:

- Principles of Economics – six hours
- Principles of Accounting – six hours
- Investments
- Business finance
- Statistics
- Calculus

Transcripts and Deadlines

Application for admission to the M.S. in finance program and official transcripts of all prior academic work should be submitted to the WVU Office of Admissions as early as possible. Applicants who have attended institutions other than WVU must request the registrar or records office of those institutions to forward a complete official transcript directly to the WVU Office of Admissions. Review of applications and consideration of financial awards will begin on January 15 and continue until April15.

M.S. Finance Requirements

FIN 511	Financial Economics	3
FIN 520	Quantitative Finance	3
FIN 521	Financial Reporting and Analysis	3
FIN 522	Advanced Corporate Finance	3
FIN 523	Equity Investment	3
FIN 525	Derivative Securities	3
FIN 526	Portfolio Management	3
Complete the the courses listed below or the Energy Area of Emphasis		17
BADM 527	Macroeconomic	
BADM 571	Professional Development Practicum 1	
BADM 572	Professional Development Practicum 2	
FIN 491	Professional Field Experience	
FIN 512	Ethical Standards in Finance	
FIN 527	Alternative Investments	
FIN 528	Integrated Financial Analysis	
Total Hours		**38**

M.S. Finance Suggested Plan of Study

First Semester

Summer	Hours
BADM 527	3
FIN 512	3
	6

Second Semester

	Fall	Hours
	FIN 511	3

FIN 520	3	
FIN 521	3	
FIN 526	3	
FIN 527	3	
BADM 571	1	
16		

Third Semester

	Spring	Hours
	FIN 522	3
	FIN 525	3
	FIN 523	3
	FIN 528	3
	BADM 572	1
13		

Fourth Semester

Summer	Hours	
FIN 491	3	
3		

Total credit hours: 38

Advisor and Program Committee

The program coordinator serves as a student's graduate advisor and also as chair of the student's committee. The advisor and student typically meet soon after the student's arrival to campus to develop a plan of study and on a regular basis thereafter to monitor and review progress. In most programs the plan of study should be in place no later than the end of the student's first semester. The remainder of the program committee is comprised of a minimum of two members of the graduate faculty. The committee oversees the student's plan of study to ensure that progress continues towards meeting all degree requirements.

Plan of Study

All graduate students must have a plan of study, which is a formal agreement between the student and their program faculty regarding the conditions the student must meet to earn the desired degree. The plan of study usually lists required courses and activities and describes the timeline for these requirements. The plan may also include suggested or optional courses and activities. Each college or school determines the mechanisms for establishing, changing, and monitoring students' progress on plans of study. For the M.S. Finance and M.S. Finance-Energy Area of Emphasis, the typical plan of study is illustrated below.

Yearly Evaluation

All graduate students who enroll in at least one credit during the academic year are provided with a written evaluation from their program following the end of each spring term. This requirement may be waived for students in good standing who are expected to graduate in spring or summer.

Energy Area of Emphasis Requirements

FIN 491	Professional Field Experience	3
FIN 530	Energy Financial Economics	3
FIN 531	Energy Law/Regulation/Ethics	3
FIN 532	Energy Financial Accounting	3
FIN 533	Energy Financial Risk Management	3
FIN 591A	Energy Finance Practicum	2
Total Hours		**17**

M.S. Finance with Energy Area of Emphasis Suggested Plan of Study

First Semester

Summer	Hours
FIN 530	3
FIN 531	3
6	

Second Semester

Fall	Hours
FIN 511	3
FIN 520	3
FIN 521	3
FIN 526	3
FIN 533	3
FIN 591A: Energy Finance Practicum	1
16	

Third Semester

Spring	Hours
FIN 522	3
FIN 525	3
FIN 523	3
FIN 532	3
FIN 591A Energy Finance Practicum	1
13	

Fourth Semester

Summer	Hours
FIN 491	3
3	

Total credit hours: 38

Dual Degree-MBA and M.S. Finance

For students who have been accepted into both the MBA and M.S. Finance program, the program of study involves a combination of coursework described above and that required by the MBA program. University policy permits up to 25% of the programs of study to overlap. Currently, the initial summer session includesFIN 513 or FIN 530 , which meets the MBA requirement of BADM 527 and the M.S. Finance course FIN 512, which meets the MBA requirement of BADM 512. The initial fall semester M.S. Finance offering FIN 511 meets the MBA requirement of BADM 511.

Forensic and Fraud Examination

Degree Offered

- Master of Science

Program

The 30-hour on-line program is comprised of a core of forensic and fraud examination classes centered on data analytics for success in this career path. Students complete an intensive, 12-month program. The program builds on the 12-credit hours from the FAFE graduate certificate (GC) program and adds two additional FFE courses. The first would be a skills course that ensures that all students are on an equal footing with regard to four topics: auditing, information technology, financial, and managerial accounting, particularly as these topics interface with forensic and fraud examination material. The second course would be more advanced in nature, addressing either litigation support or data analytics and may combine both. These two courses would be designed to complement the existing four FAFE GC courses.

Academic Standards

Students in the Master in Forensic and Fraud Examination program are subject to the following performance standards:

1. Students are required to maintain a 3.0 or better overall GPA for all courses completed as a Masters student at WVU.
2. A student whose cumulative grade point average falls below 2.75 will be placed on probation. If the average is not brought up to 2.75 by the end of the following semester, the student will be suspended from the program. The suspension will last one year and the student will be eligible to re-engage in courses after that time period.

To apply to the MS in FFE program:

- Application: A West Virginia University Application for Graduate Admission. This can be accomplished online.

- Official Transcripts: Official transcripts from all prior academic work must be forwarded to the Office of Admissions and Records, PO Box 6009, Morgantown, WV 26506-6009.
- Graduate Management Admissions Test® scores: Applicants must have scores submitted from the Graduate Management Admissions Test® (GMAT). Anyone who scores below the 50th percentile should re-take the exam. Two years of related professional experience may be substituted for the GMAT.
- Resume: The Official Transcript and GMAT performance provide some quantitative evidence about an applicant. Applicants round out their profile with other evidence found in their résumé. The resume should include enough information for the admissions committee to trace the applicant's entire professional work history and should indicate any relevant affiliations.

Additionally, applicants have the option of submitting:

- Letters of recommendation (up to three): We recommend that references provide some information that is not found in the other materials being submitted. Anecdotal comments from the reference writer's shared experience is encouraged.
- Statement of Purpose: Often the resume, transcripts, and GMAT scores fail to capture important characteristics that the individual offers for the program. The Statement of Purpose refers to a short essay in which an applicant reflects on the contribution of the MS in FAFE degree to the applicant's future and the special characteristics that the applicant brings to the MS in FAFE program. We are interested in value-added experiences, both from the program to the student and from the individual student to the program.

Fraud and Forensic Examination Master of Arts Requirements

Overall 3.0 GPA required.

Minimum grade of C required in all courses applied toward the degree.		
ACCT 580	Forensic and Fraud Examination (FFE) Skills	3
ACCT 581	Fraud Investigation	3
ACCT 582	Fraud Data Analysis	3
ACCT 583	Fraud: Criminology/Legal Issues	3
ACCT 584	Advanced Fraud Investigation	3
ACCT 585	Advanced Analytical Techniques	3
MBA Electives		12
Total Hours		**30**

SUGGESTED PLAN OF STUDY

First Semester	Hours
ACCT 580	3
MBA Elective	3
MBA Elective	3
	9
Second Semester	**Hours**
ACCT 581	3
ACCT 582	3
	6
Third Semester	**Hours**
ACCT 583	3
ACCT 584	3
	6
Fourth Semester	**Hours**
ACCT 585	3
MBA Elective	3
MBA Elective	3
	9

Total credit hours: 30

Industrial Relations

Degree Offered

- Master of Science in Industrial Relations

The Department of Management offers a master of science in industrial relations (M.S.I.R.). The AACSB-accredited program of study prepares students for professional positions in human resources (employee relations) and labor relations.

Entry-level professional opportunities for M.S.I.R. graduates include such positions as human resource generalist, human resource managers, labor relations specialist, training coordinator, recruiting specialist, compensation analyst, and benefits administrator. Other positions include staff representative with organized labor, apprentice arbitrator, labor-management consultant, National Labor Relations Board field examiner, government employee relations representative, and employment analyst. Many graduates are employed by Fortune 500 companies. Some find positions with organized labor, all levels of government, and advocacy organizations. The department, in conjunction with the College of Business and Economics Center for Career Development, makes a concerted effort to place graduates in positions that fulfill student job objectives.

IRSA

Students are encouraged to participate in academic-related extracurricular activities. Many are cosponsored by the Industrial Relations Student Association including: the IRSA Newsletter, the mentorship program, company site visits, guest speakers, community service efforts, social events, and honors banquets. Outstanding academic achievement is recognized by membership in the Industrial Relations Honor Society. The faculty makes Outstanding IR Student awards annually to persons selected on the basis of scholarship, informal leadership, and extracurricular activities.

Financial Aid

Over half of all M.S.I.R. students qualify for financial aid on the basis of need, merit, or a combination of both. A limited number of scholarships and tuition waivers are awarded each year on a competitive basis. Additional information can be obtained from the graduate programs office at http://www.finaid.wvu.edu.

Academic Common Market

The WVU M.S.I.R. program is a member of the Southern Regional Education Board's Academic Common Market program. Residents of Delaware, Florida, Georgia, Kentucky, Maryland, and Virginia who are admitted to the M.S.I.R. program can pay tuition at West Virginia University's in-state (resident) rates. See http://www.sreb.org for more information.

FACULTY

CHAIR, DEPARTMENT OF MANAGEMENT

- Joyce Thompson Heames - Ph.D. (University of Mississippi)
  Business Acumen, Talent Acquisition, Organizational Behavior and Change Renewal, Management, Corporate Social Responsibility

PROFESSOR

- Neil S. Bucklew - Ph.D. (University of Wisconsin)
  Former WVU President, Industrial Relations, Collective Bargaining, Labor Management Relations, Negotiations and Conflict Resolutions

ASSOCIATE PROFESSORS

- Joyce Thompson Heames - Ph.D. (University of Mississippi)
  Business Acumen, Organizational Change Process, Talent Aquisition, Human Resource Management, Training and Development, Corporate Social Responsibility,
- Jeffery D. Houghton - Ph.D. (Virginia Polytechnic Institute & State University)
  International HRM, Organizational Behavior, Self Leadership, Team Processes

TEACHING ASSISTANT PROFESSOR

- Mark Johnson - MA - HRIR (St. Francis University)
  MSIR Program Coordinator; Courses: Collective Bargaining, Labor Relations
- Suzanne Gosden Kitchen - Ed.D. (West Virginia University)
  MSIR Program Student Advisor: Courses: Human Capital Management, EEO, Training and Development

EXECUTIVE IN RESIDENCE

- Bill Hutchinson - M.S.I.R. (West Virginia University)
  Collective Bargaining, Performance Management, Compensation and Benefits

EMERITI

- Randyl Elkins - Ph.D.
- Dieter Schaupp - Ph.D.

LECTURERS

- Tina Parton - MSIR
  Benefits, HR Strategy
- Jon Reed - J.D.
  Employment Law
- Nathan Wright - MSIR
  HR Information Systems

Admission

The MSIR degree is interdisciplinary in nature and no specific undergraduate major is required. Coursework in computer science, labor economics, statistics, and business disciplines is helpful. To gain admission into the M.S.I.R. program, an applicant must have a bachelor's degree from an accredited institution. Overall grade point average is considered with additional attention given to the grade point average achieved in the last sixty hours of coursework. Either the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT) is required. No action is taken on an application for admission until a GRE or GMAT score is submitted. International students must also submit a satisfactory TOEFL score.

Applicants must also send additional supportive material: a personal statement of purpose addressing their desire and reasons for applying, a minimum of two reference letters, and a professional resume of their school and work experiences.

Application Deadlines

The MSIR program accepts applications for fall admission only. The application deadline is March 1. Later applications, while acceptable, may diminish the chances for admission due to the graduate class being filled. Because no admission decision can be made without the applicant's GRE/GMAT score being submitted, applicants should keep in mind the GRE/GMAT test schedule.

Industrial Relations Master of Science Degree Program Requirements

A minimum GPA of 3.0 is required in all courses [*]

A grade of C or higher must be earned in all required courses		
ILR 505	Employment Law	3
ILR 506	Performance Management	3
ILR 508	Organizational Change and Renewal	3
ILR 509	Talent Acquisition	3
ILR 511	Human Capital Management	3
ILR 515	Business Acumen-HR Managers	3
ILR 520	Human Resource Information Systems	3
ILR 522	International Industrial Relations	3
ILR 530	Compensation Issues	3
ILR 534	Work Group Dynamics and Leadership	3
ILR 544	Benefits Management	3
ILR 546	Training and Development	3
ILR 548	Strategic Management for Human Resources	3
ILR 562	Labor Relations	3
ILR 571	Human Resource/Industrial Relations Practicum 1	1
ILR 572	Human Resource/Industrial Relations Practicum 2	1
ILR 573	Human Resource/Industrial Relations Practicum 3	1
ILR 574	Human Resource/Industrial Relations Practicum 4	1
ILR 589	MS - Industrial and Labor Relations Internship	3
Select two electives from the following		6
ILR 507	Conflict Management Processes	
ILR 543	Negotiation Strategy	
ILR 581	Collective Bargaining Practice	

MANG 426	Introduction to Decision Analysis
Total Hours	**55**

*   GPA
The M.S.I.R. program requires that the student maintain a grade point average of at least 3.0 on all work taken as a graduate student while enrolled in the College of Business and Economics. In addition, the student must maintain a 3.0 average in all work counting toward the graduate degree. A student whose cumulative grade point average falls below 2.75 will be placed on probation. If the student's average is not brought up to 2.75 by the end of the following semester, the student will be suspended from the program. A grade below C in more than one course taken while enrolled as a graduate student will result in suspension from the program.

SUGGESTED PLAN OF STUDY

Two-Year Course of Study: (forty-eight credit hours including fourteen core courses and *two electives)
*Select one elective each semester or term.

First Year

Summer	Hours
Ivy League Modules (Summer 1 - on-line- if no prior business education)	
	0

Total credit hours: 0

First Year

Fall	Hours	Spring	Hours	Summer	Hours
ILR 511	3	ILR 506	3	ILR 589	3
ILR 505	3	ILR 509	3		
ILR 562	3	ILR 522	3		
ILR 534	3	ILR 515	3		
ILR 571	1	ILR 572	1		
	13		**13**		**3**

Second Year

Fall	Hours	Spring	Hours
ILR 508	3	ILR 530	3
ILR 520	3	ILR 546	3
ILR 544	3	ILR 548	3
ILR 573	1	ILR 574	1
MANG 426 or ILR 507	3	ILR 581 (or ILR 593)	3
	13		**13**

Total credit hours: 55

1 Year Master of Science in Industrial Relations Dual Degree Option

Some graduates with a J.D., M.B.A., or other business-related master's degree from a US institution may apply to complete the M.S.I.R. degree program in one year. Not all applicants will be approved for the one-year option, but each application will be evaluated individually by the Admissions Committee.
  Combining study for the M.S.I.R. and the M.B.A. degrees is another option available to qualified candidates. Students need to apply separately for admission to each program. A plan of study will be created for any student admitted in the dual degree option.

College of Creative Arts

Degrees Offered

- Master of Arts in Art & Design
- Master of Arts in Music Industry
- Master of Music
- Doctor of Musical Arts
- Doctor of Philosophy in Music
- Master of Fine Arts in Art & Design or Theatre

Introduction

Creative development in art, music, theatre, and dance is central to the College of Creative Arts. Made up of three professionally accredited and nationally recognized Schools of Art & Design, Music, and Theatre & Dance, the College provides graduate students with a place where they can forge a personal understanding between artistic practice and theory, and form both personal and professional insights that explore and expand the nature of human creativity. Combining performance, exhibition, and scholarship in ways that address both traditional and innovative approaches to art, music, theatre, and dance, graduate students gain a greater understanding of the arts and--in turn--themselves.

A distinguished faculty of scholars and artists bring to the college's outstanding facilities a commitment to a creative process of artistic growth and advanced education. In a rich environment of plays, exhibitions, and concerts, the college offers graduate students the knowledge, skills, and inspiration necessary for artistic and professional success.

Graduate programs in art, music, and theatre are characterized by quality of faculty, students, and curricular opportunity. Each school is an accredited member of the nationally recognized accrediting agency for professional instruction in the discipline: art programs by the National Association of Schools of Art and Design, music programs by the National Association of Schools of Music, and theatre programs by the National Association of Schools of Theatre.

VISION STATEMENT

We envision broadening our role as a leader of innovation and engagement in the arts.

MISSION STATEMENT

The College of Creative Arts educates succeeding generations of artists, teachers, and scholars through an experimental student-centered appraoch to learning. The college advocates the arts as a medium through which the diversity of human experience is understood and valued. Exemplifying excellence and innovation in performance, exhibition, scholarship, and creative research, the college offers artistic and cultural opportunities for the citizens of West Virginia and the global community.

FACILITIES

The Creative Arts Center, which houses the college, is a modern, multimillion-dollar instructional and performance facility with four theatres, recital halls, and recording studio; scenery, painting, drawing, design, costume, printmaking, sculpture, ceramic, puppet, and instrumental studios; additional art studios and two art galleries.

PROGRAMS OF STUDY

The doctor of musical arts (D.M.A.) curricula in performance (piano, voice, percussion, flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, trombone, tuba, violin, viola, cello, or double bass) or composition and the Ph.D. curriculum in music education prepares students for careers as teachers in higher education.

The master of fine arts (M.F.A.) is a terminal degree in art and theatre that prepares students for careers in ceramics, graphic design, painting, printmaking, sculpture, acting, or theatre design/technology (costume, scenery, and lighting).

The master of music (M.M) degree enhances undergraduate training in performance, music education, theory, music history, and composition.

The master of arts (M.A.) has concentrations in art education, art history, music industry, and studio art.

For More Information

Additional information on programs of study and areas of emphasis within each degree can be found in the individual school's description in this catalog and/or on the school's website listed below. Students may also contact the individual Graduate Coordinators for each School's graduate program.

ART & DESIGN

Graduate Advisor, School of Art & Design

Phone: (304) 293-4077

Website: http://artanddesign.wvu.edu/

MUSIC

Director of Graduate Studies, School of Music

Phone: (304) 293-4489

Website: http://music.wvu.edu/

THEATRE

Director, School of Theatre and Dance

Phone: (304) 293-6806

Website: http://theatre.wvu.edu/

Written requests for information should be sent to the appropriate Graduate Coordinator and school at the following address: College of Creative Arts, Creative Arts Center, West Virginia University, P.O. Box 6111, Morgantown, WV 26506-6111.

General information about graduate study and life at West Virginia University can be found at http://grad.wvu.edu/

ADMINISTRATION
DEAN AND DIRECTOR
- Paul K. Kreider - D.M.A. (University of Arizona)
ASSOCIATE DEAN
- William J. Winsor - M.F.A. (Ohio State University)
ASSISTANT DEAN
- John Hendricks, III - M.M. (West Virginia University)

Degree Designation Learning Goals

The language stated in the following list of learning goals for the College of Creative Arts graduate programs is based on (directly quoted, paraphrased or modified) current standards written and employed by the Council of Arts Accrediting Associations (National Association of Schools of Art and Design, National Association of Schools of Dance, National Association of Schools of Music and National Association of Schools of Theatre). Due to the nature of the College's specialized degrees, this goal list is not intended to be comprehensive.

As stated by the Council of Arts Accrediting Association: *National accreditation requirements outline threshold standards for institutional and individual achievement. These thresholds indicate essentials; they are rigorous. Attaining them represents a significant accomplishment. Therefore, these standards are both a foundation and a framework for specific achievements and evaluations of their quality.*

With the exception the Master of Arts in Music Industry, which is pending "intent for accreditation," the appropriate association of the Council has awarded accreditation to all of the graduate degree programs within the College of Creative Arts at West Virginia University.

MASTER OF ARTS

The following are general learning goals for students pursuing a Master of Arts:

- Develop advanced capacities to work independently and make effective artistic and intellectual judgments and professional decisions in the area of specialization.
- Demonstrate professional competence in the area of specialization before peers and faculty.
- Gain knowledge and skills in one or more areas outside the major.

Master of Arts (MA) in Music Industry:

- Delineate and analyze current music industry regulations regarding their commercial implications, opportunities, and management across the industry.
- Knowledge of historical progress and development of various music business sectors and regulatory frameworks in demonstrating understanding of the present music business.

- Perform management level music business procedures and processes.
- Plan and manage music production processes and activities in recording and live music business sectors.

Master of Arts (MA) in Art History:

- Demonstrate a broad general knowledge of the history of art, as well as specialization in a more limited area.
- Knowledge of historiography and methods of scholarship and be capable of undertaking independent research.
- Demonstrate knowledge of at least one foreign language.

Master of Arts (MA) in Art Education:

- Demonstrate advanced competencies in art education.
- Gain knowledge and skills in one or more fields of art outside the major such as the studio arts or art history.
- Develop graduate-level perspectives on contemporary issues and problems in are education.

MASTER OF MUSIC

The Master of Music (MM) degree focuses on the development of professional competence in a music specialization or in a music-related field. The MM may be taken in performance, music education, composition, music theory, or music history.

- Develop advanced capacities to work independently and make effective artistic and intellectual judgments and professional decisions in the area of specialization.
- Demonstrate professional competence in the area of specialization before peers and faculty.
- Gain knowledge of repertory and historical performance practices.
- Gain knowledge and skills in one or more fields of music outside the major such as theory, history, musicology, ethnomusicology and performance.

Master of Music (MM) in Performance:

- Performance at a professional level with historical and theoretical knowledge supportive of the development of individualized interpretations and collaboration in a specialized vocal or instrumental area.
- Demonstrate knowledge and skills in one or more fields of music outside the major such as theory, history, musicology, ethnomusicology, and performance.

Master of Music (MM) in Music Education:

- Demonstrate advanced competencies in music education.
- Gain knowledge and skills in one or more fields of music outside the major such as performance, conducting, theory and analysis and history and literature.
- Develop graduate-level perspectives on contemporary issues and problems in music education.

Master of Music (MM) in Music Theory:

- Students demonstrate advanced competencies in music theory.

Master of Music (MM) in Music Composition:

- Demonstrate advanced competencies in composition.
- Students demonstrate advanced competencies in music theory.

Master of Music (MM) in Music History:

- Students demonstrate advanced competencies in music history and literature and/or musicology and/or ethnomusicology.

MASTER OF FINE ARTS

The Master of Fine Arts (MFA) degree is for advanced graduate-level programs that focus on the practice of some aspect of the Visual and Performing Arts.

- Awareness of current issues and developments that influence the principal field of study, and professional ability and clear potential to contribute to the practice and advancement of the field.
- Writing and speaking skills to communicate clearly and effectively to the public and in formal or informal teaching situations.
- Understanding of appropriate related disciplines, the ability to think independently, and to integrate and synthesize information associated with high levels of practice in an area of specialization.
- Develop advanced competencies to work independently and make effective artistic and intellectual judgments and professional decisions in the area of specialization.

- Demonstrate professional competence in the area of specialization before peers and faculty.
- Demonstrate a breadth of understanding of the related disciplines, the ability to think independently and to integrate and synthesize information associated with high levels of practice in an area of specialization.
- Understanding of professional ethics and practice associated with the major field.

Master of Fine Arts (MFA) in Art: Studio Arts:

- Demonstration of professional competence in some aspect of studio art or design as exemplified by a considerable depth of knowledge and achievement demonstrated by a significant body of work.
- Professional depth of knowledge and achievement demonstrated by a significant body of studio-based design work.
- Advanced capabilities with technologies utilized in the creation, dissemination, documentation, and preservation of work in the field or area of specialization.
- Ability to integrate and synthesize information associated with an area of specialization, including the ability to reach and articulate conclusions as an individual artist or designer.
- In-depth understanding of the consequences of art and design in various contexts, including those that involve relationships among the elements of complex interacting systems.
- Ability to explore and develop art and design methods and tools that are appropriate to supporting collaborative work.

Master of Fine Arts (MFA) in Theatre: Acting:

- The ability to employ a broad range of acting knowledge and skills in the creation and presentation of roles.
- The ability to perform in plays of various types and from various periods.
- The acquisition of advanced understanding and capabilities in voice and speech, movement, and play analysis.
- A working knowledge of historical, critical, and theoretical content and the ways they inform playwriting and dramatic writing, the creation of roles and other aspects of production.

Master of Fine Arts (MFA) in Theatre: Theatrical Design (Lighting, Costume or Scenic):

- Demonstration of advanced and comprehensive professional competence in one or more areas of theatrical design.
- Advanced abilities in the unification of all design elements used in professional production.
- Knowledge of health and safety practices associated with theatre production.
- Advanced knowledge and skills in history of de#cor and costumes, drawing, color theory, lighting, two- and three-dimensional design, and computer/ digital technology and the ability to integrate them in production designs.
- Creative and technical ability to develop the design of a production from concept to finished product.
- A working knowledge of play analysis and the ways that historical, critical, and theoretical content inform playwriting, acting, directing, and design.
- The ability to work with theatre professionals

DOCTOR OF MUSICAL ARTS AND THE DOCTOR OF PHILOSOPHY

The Doctor of Philosophy (Ph.D.) in music education prepares students for careers as teachers in higher education. The Doctor of Musical Arts (DMA) degree is intended for those planning to work at the most advanced academic and professional levels of musical endeavor. The DMA degree may be taken in performance and literature or in composition.

- Intellectual awareness and curiosity sufficient to predict continued growth and contribution to the discipline.
- Significant advanced, professional-level accomplishment in performance, composition, scholarship or conducting.
- Knowledge of the techniques of music theory sufficient to perform advanced analysis.
- Knowledge of representative literature and composers of each major period of music history.
- Knowledge of general bibliographical resources in music.
- Considerable depth of knowledge in some aspect of music, such as an historical period, an aspect of theory, performance practice or compositional styles.
- Writing and speaking skills to communicate clearly and effectively to members of the scholarly community and the wider community, and especially in teaching situations.

Doctor of Musical Arts (DMA) Performance and Literature:

- Performance at the highest professional level with historical and theoretical knowledge supportive of the development of individualized interpretations and collaboration in a specialized vocal or instrumental area.
- Broad knowledge of repertory and literature in the area of specialization.

Doctor of Musical Arts (DMA) in Composition:

- Development of a personal aesthetic expressible in sound.
- Knowledge of historical and contemporary compositional practices, music theory, history and criticism, and creative approaches to relationships of these to the compositional process.

Doctor of Philosophy (PhD) in Music Education:

- Ability to think abstractly, generalize knowledge, carry on research and apply research results to a specialized area of music, and in particular, music education.
- Knowledge of the philosophical and psychological foundations of music education and the processes of teaching and learning music.
- Demonstration of a broad knowledge of performance, aesthetics, ethnomusicology, history of the other arts, education, anthropology, and sociology.

Admission Requirements

The College of Creative Arts uses the admission standards and procedures of the university for the admission of graduate students. Each school within the college also has individual admission requirements.

Potential graduate students should refer to the specific admission criteria of each school found in their program descriptions in this catalog and on the school's website.

Because of the creative nature of the arts, some students may be admitted under the individual consideration clause of the university's general admission policy. This category allows admission of exceptionally talented students in art, music, and theatre who might not meet the criteria for grade point averages and standardized test scores to be admitted to one of the College's programs of study.

Assistantships, Tuition Waivers and Financial Awards

To assist in funding the cost of graduate education, West Virginia University and the College of Creative Arts offer a number of financial assistance packages for qualified applicants. These include graduate assistantships, graduate tuition waivers, and cash awards.

Assistantships are offered in each school; however, the number of assistantships is limited and their award is competitive based on their availability as well as the quality of the applicants and their potential for significant contribution to the school and college. Assistantships pay stipends, health insurance, and a university tuition waiver. In return, graduate assistants provide approximately twenty hours of work per week during the nine month academic year with duties that range from instructional to service positions within each school.

For more information on assistantships, graduate tuition waivers, cash awards, application process, and important deadlines, please refer to each school's individual website.

Additional information on funding for graduate study at West Virginia University can be found at http://grad.wvu.edu/

School of Art and Design

Degrees Offered

- Master of Arts
- Master of Fine Arts

The graduate programs in the School of Art and Design lead to a master of arts (M.A.) with emphasis in art history, art education, or studio art (two years and a minimum of thirty credit hours; thirty-six is recommended) or to a master of fine arts (M.F.A.) with emphasis in studio art (three years and seventy-two credit hours). These programs are highly selective and closely integrated. All applicants are expected to have academic competence, artistic maturity, and the motivation to achieve excellence in their areas of concentration.

The master of fine arts is a professionally-oriented terminal degree in the studio arts, with concentration in ceramics, graphic design, intermedia/photography, painting, printmaking, or sculpture. Applicants typically hold a baccalaureate degree in art or its equivalent for admission. Recommended preparation includes twelve hours of art history, seventy hours of studio art or equivalent experience, and thirty-six hours of general education.

Accreditation

The School of Art and Design is an accredited institutional member of the National Association of Schools of Art and Design (NASAD), the only nationally recognized accrediting agency for professional art instruction. Applicants for graduate studies must comply with the standards for admission set by West Virginia University, the College of Creative Arts, and the School of Art and Design.

Reviews

All students enter the graduate programs in art as preliminary candidates. Students in the M.F.A. program are reviewed for advancement to degree candidacy at the end of their third semester of study or upon the completion of a minimum of thirty credit hours. Candidacy status is obtained upon

review by the full faculty of the school and must be approved by the student's graduate committee. Students in the M.A. program are reviewed for advancement to degree candidacy at the end of their first semester of study or upon the completion of a minimum of twelve credit hours.

The School of Art and Design has high expectations for its graduate students. Because of this, certain standards of achievement exceed the minimum standards set by the university for all graduate students. The School of Art and Design reserves the right to impose stricter limitations on all art graduate students. Credit hours in courses with an earned grade of C do not automatically count toward graduate degree requirements. The graduate committee and the school director have the right to declare such credit hours unacceptable.

Program Transfer

A preliminary candidate in a graduate art program is not guaranteed acceptance into another graduate art program. A change from the M.F.A. program to the M.A. program (or the reverse) must be approved by the graduate faculty of the School of Art and Design. Under normal conditions, such a change is not considered until the student has established credibility by successfully completing a minimum of twelve approved credit hours of study at WVU. Transfer to a program outside the School of Art and Design must be approved by the receiving unit. To make an application for a double degree program or a special interdepartmental program at the graduate level, students must have prior written approval of the School of Art and Design Director.

Thesis

All candidates for a graduate degree in art must prepare a written thesis (or graduate project) related to their work and activity as a graduate student. The chair of the student's graduate committee supervises the preparation of the thesis. The thesis must be prepared according to the form prescribed in the WVU regulations governing the preparation and electronic submission of dissertations and theses as well as school guidelines, unless an exception is authorized in advance by the student's graduate committee and the school director. A final draft of the thesis must be submitted to committee members at least one month prior to the electronic filing date for review and approval.

RESIDENCE REQUIREMENTS

M.F.A. students take nine to fifteen hours per semester. All students accepted into the M.F.A. program are required to spend six full-time semesters (excluding summer sessions) in residence. Approved study abroad semesters count toward the residency requirement.

FACULTY
DIRECTOR

- Alison Helm - M.F.A. (Syracuse University)
  Sculpture

ASSOCIATE DIRECTOR, UNDERGRADUATE ADVISOR

- Kristina Olson - M.A. (Stony Brook University)
  Art history-Modern and contemporary, Art criticism

GRADUATE ADVISOR

- Joseph Lupo - M.F.A. (University of Georgia)
  Graduate Advisor, Printmaking

PROFESSORS

- Eve Faulkes - M.F.A. (Rhode Island School of Design)
  Graphic Design
- J. Bernard Schultz - Ph.D. (University of Pittsburgh)
  Art History-Italian Renaissance
- Janet Snyder - Ph.D. (Columbia University)
  Art History-Ancient, Medieval, Northern Renaissance, Native American

ASSOCIATE PROFESSOR

- Gerald Habarth - M.F.A. (University of South Florida)
  Electronic Media
- Jason Lee - M.F.A. (University of Wisconsin-Madison)
  Sculpture, Foundations
- Robert Moore - M.F.A. (Utah State University)
  Ceramics
- Rhonda Reymond - Ph.D. (University of Georgia)
  Art history-American, African American, 17th-19th century European art
- Shoji Satake - M.F.A. (University of Indiana-Bloomington)
  Ceramics

- Naijun Zhang - MFA (West Virginia University)
  Painting, Drawing
- Michael Sherwin - M.F.A. (University of Oregon)
  Photography, Digital Imaging

ASSISTANT PROFESSOR

- Dylan Collins - M.F.A. (Kent State University)
  Sculpture, Drawing
- Joseph Galbreath - M.F.A. (Maryland Institute College of Art)
  Graphic Design
- Terese Giobbia - Ph.D. (Northern Illinois University)
  Art Education
- Jeffrey Moser - M.F.A. (University of Delaware)
  Interactive Media Design
- Kofi Opoku - M.F.A. (West Virginia University)
  Graphic Design

LECTURER

- Kristen Harkness - Ph.D. (University of Pittsburgh)
  Art History-Survey, Methodology

Admission to Masters Program

Applicants for the M.A. in art history must submit a copy of a written research project, three letters of recommendation, a statement of purpose, and GRE scores.

Applicants for the M.A. (studio and art education) or the M.F.A. must present a portfolio for admission to the School of Art and Design. This portfolio must contain twenty JPG images with a minimum of 800 x 600 pixels or equivalent video documentation. Applicants should take care to select images of recent and representative work for inclusion in the portfolio. Each image should be documented with name, date of completion, size of work, and type of medium. Applicants must also submit a statement of purpose and three letters of recommendation from college faculty or persons knowledgeable of the applicant's interests and abilities.

In addition to the application materials listed, transfer students must ask to transfer graduate work completed elsewhere. Transcripts must accompany the written request. The acceptance of transfer credit is not automatic. The graduate faculty, the graduate advisor, and the School Director will determine how much, if any, previous graduate-level work may be transferred. The maximum allowable number of graduate transfer credits toward the degree is nine. All transfer credits must be in place by the end of the first semester.

Details about additional application requirements and the link to the online application form can be located at: http://artanddesign.wvu.edu/future-students. Materials should be submitted to: Graduate Advisor, School of Art and Design, College of Creative Arts, West Virginia University, P.O. Box 6111, Morgantown, WV 26506-6111.

In addition to the School of Art and Design's graduate application and portfolio requirements, prospective students are required to fill out a separate West Virginia University student application form, which is to be submitted electronically to the Office of Admissions at http://grad.wvu.edu/ along with an application fee and official transcripts.

Financial Aid

Financial aid information is available through the Student Financial Aid Office, West Virginia University, P.O. Box 6004, Morgantown WV 26506-6004.

Graduate Assistantships

Graduate assistantships and other forms of financial aid are awarded to students of exceptional promise by the faculty of the School of Art and Design.

Art Education

Master of Arts in Art Education

Specialization in art education requires the completion of a minimum of thirty hours with a recommended total of thirty-six. The exact course of study is determined through consultation with the student's advisor and graduate committee.

M.A. art education students are required to produce a written thesis or, at the graduate committee's discretion, may complete a research project.

Degree Requirements

Studio and/or Academic Electives		12-18
Art Education or Approved Studies		12
ART 602	Master's in Art Education Project	6
Total Hours		**30-36**

Art History

Master of Arts in Art History

The Master of Arts in art history program offers a two-year degree that provides a solid foundation in historical and theoretical study of the history of Western Art, from Medieval to Contemporary. The program emphasizes independent exploration and interdisciplinary research.

Art history studies the traditions and techniques of the visual arts. It is an interdisciplinary field, drawing upon philosophy, history, literature, religion, and mythology to examine works of art and their contexts. The history of art provides means to penetrate cultural constructions and their aesthetic and artistic productions. To assist the student in developing skills needed to analyze and understand the object, the course of study includes requirements in academic coursework and research.

The collection of the Art Museum of West Virginia University both provides first-hand experience with works of significant aesthetic and cultural value and introduces students to curatorial and museum practice. The Laura and Paul Mesaros Galleries in the Creative Arts Center and the Visiting Artist and Scholar program form a crucial link in the course of study, presenting installation and curatorial opportunities. Through the School of Art and Design's association with regional institutions, museum and gallery internships are encouraged.

DEGREE REQUIREMENTS

Reading proficiency in one language other than English in writing and speaking skills needed to communicate clearly and effectively are required for completion of the degree and can be met through additional coursework or passing a proficiency exam.

Completion of the program culminates in the master's thesis, which may take a variety of forms within the context of art's historical and critical practices. The student will select a thesis topic that must meet with the approval of the art history faculty. The thesis consists of a research paper demonstrating critical knowledge of relevant sources, skill in analysis and interpretation, and ability to present the results in a well-organized and intelligent manner. The thesis must be defended in an oral examination.

Applicants for admission to the master's program are expected to demonstrate competence in the history of art, equivalent to an undergraduate major, as well as reading competence of at least one language other than English (four-semester equivalent), and must submit GRE examination scores. The B.A. degree in an area of substantial humanistic research plus a foreign language may also be considered appropriate preparation.

Degree Requirements

Art History		21
Selected from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
ARHS 545	Modern Art Theory	
ARHS 548	Women in Art	
ARHS 550	Northern Renaissance	
ARHS 554	Italian Renaissance	
ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
ARHS 582	Architect Frank Lloyd Wright	

ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	
ARHS 589	Contemporary	
ARHS 591	Advanced Topics	
ARHS 592	Directed Study	
ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	
ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
Cognate Classes		6
ARHS 601	Thesis	3
Total Hours		**30**

Ceramics

Master of Fine Arts

The Master of Fine Arts is a terminal degree in studio art. Our selective and limited enrollment ensures regular individual contact with a dedicated, diverse faculty who are committed to a sustained professional exchange with each student. A collaboratively designed curriculum is augmented by regular critiques engaging all studio majors and faculty. Media experimentation is encouraged. Students must be able to apply and communicate a diverse body of knowledge of historical, cultural, contemporary, and aesthetic issues to their professional practice. Students are expected to articulate and defend their position within the context of contemporary art discourse.

Degree Requirements

Ceramics		36
ART 540	Graduate Ceramics (repeated)	
Studio/Cognate Electives		15
Art History		9
Select 3 from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
ARHS 545	Modern Art Theory	
ARHS 548	Women in Art	
ARHS 550	Northern Renaissance	
ARHS 554	Italian Renaissance	
ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
ARHS 582	Architect Frank Lloyd Wright	
ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	

ARHS 589	Contemporary	
ARHS 591	Advanced Topics	
ARHS 592	Directed Study	
ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	
ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
ART 590	Teaching Practicum/Professional Practice	3
ART 696	Graduate Seminar	3
ART 600	Graduate Exhibition and Thesis	6
Total Hours		**72**

Graphic Design

Master of Fine Arts

The Master of Fine Arts is a terminal degree in studio art. Our selective and limited enrollment ensures regular individual contact with a dedicated, diverse faculty who are committed to a sustained professional exchange with each student. A collaboratively designed curriculum is augmented by regular critiques engaging all studio majors and faculty. Media experimentation is encouraged. Students must be able to apply and communicate a diverse body of knowledge of historical, cultural, contemporary, and aesthetic issues to their professional practice. Students are expected to articulate and defend their position within the context of contemporary art discourse.

Degree Requirements

Graphic Design		36
ART 523	Graduate Graphic Design	
ART 524	Graduate Graphic Design/Professional Practice	
Studio/Cognate Electives		15
Art History		9
Select 3 from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
ARHS 545	Modern Art Theory	
ARHS 548	Women in Art	
ARHS 550	Northern Renaissance	
ARHS 554	Italian Renaissance	
ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
ARHS 582	Architect Frank Lloyd Wright	
ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	

ARHS 589	Contemporary	
ARHS 591	Advanced Topics	
ARHS 592	Directed Study	
ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	
ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
ART 590	Teaching Practicum/Professional Practice	3
ART 696	Graduate Seminar	3
ART 600	Graduate Exhibition and Thesis	6
Total Hours		**72**

Intermedia and Photography

Master of Fine Arts

The Master of Fine Arts is a terminal degree in studio art. Our selective and limited enrollment ensures regular individual contact with a dedicated, diverse faculty who are committed to a sustained professional exchange with each student. A collaboratively designed curriculum is augmented by regular critiques engaging all studio majors and faculty. Media experimentation is encouraged. Students must be able to apply and communicate a diverse body of knowledge of historical, cultural, contemporary, and aesthetic issues to their professional practice. Students are expected to articulate and defend their position within the context of contemporary art discourse.

Degree Requirements

Intermedia and Photography		36
ART 534	Alternative Media	
ART 532	Graduate Photography	
Studio/Cognate Electives		15
Art History		9
Select 3 from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
ARHS 545	Modern Art Theory	
ARHS 548	Women in Art	
ARHS 550	Northern Renaissance	
ARHS 554	Italian Renaissance	
ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
ARHS 582	Architect Frank Lloyd Wright	
ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	

ARHS 589	Contemporary	
ARHS 591	Advanced Topics	
ARHS 592	Directed Study	
ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	
ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
ART 590	Teaching Practicum/Professional Practice	3
ART 696	Graduate Seminar	3
ART 600	Graduate Exhibition and Thesis	6
Total Hours		**72**

Painting

Master of Fine Arts

The Master of Fine Arts is a terminal degree in studio art. Our selective and limited enrollment ensures regular individual contact with a dedicated, diverse faculty who are committed to a sustained professional exchange with each student. A collaboratively designed curriculum is augmented by regular critiques engaging all studio majors and faculty. Media experimentation is encouraged. Students must be able to apply and communicate a diverse body of knowledge of historical, cultural, contemporary, and aesthetic issues to their professional practice. Students are expected to articulate and defend their position within the context of contemporary art discourse.

Degree Requirements

Painting		36
ART 513	Graduate Painting	
Studio/Cognate Electives		15
Art History		9
Select 3 from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
ARHS 545	Modern Art Theory	
ARHS 548	Women in Art	
ARHS 550	Northern Renaissance	
ARHS 554	Italian Renaissance	
ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
ARHS 582	Architect Frank Lloyd Wright	
ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	
ARHS 589	Contemporary	

ARHS 591	Advanced Topics	
ARHS 592	Directed Study	
ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	
ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
ART 590	Teaching Practicum/Professional Practice	3
ART 696	Graduate Seminar	3
ART 600	Graduate Exhibition and Thesis	6
Total Hours		**72**

Printmaking

Master of Fine Arts

The Master of Fine Arts is a terminal degree in studio art. Our selective and limited enrollment ensures regular individual contact with a dedicated, diverse faculty who are committed to a sustained professional exchange with each student. A collaboratively designed curriculum is augmented by regular critiques engaging all studio majors and faculty. Media experimentation is encouraged. Students must be able to apply and communicate a diverse body of knowledge of historical, cultural, contemporary, and aesthetic issues to their professional practice. Students are expected to articulate and defend their position within the context of contemporary art discourse.

Degree Requirements

Printmaking		36
ART 530	Graduate Printmaking	
Studio/Cognate Electives		15
Art History		9
Select 3 from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
ARHS 545	Modern Art Theory	
ARHS 548	Women in Art	
ARHS 550	Northern Renaissance	
ARHS 554	Italian Renaissance	
ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
ARHS 582	Architect Frank Lloyd Wright	
ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	
ARHS 589	Contemporary	
ARHS 591	Advanced Topics	

ARHS 592	Directed Study	
ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	
ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
ART 590	Teaching Practicum/Professional Practice	3
ART 696	Graduate Seminar	3
ART 600	Graduate Exhibition and Thesis	6
Total Hours		**72**

Sculpture

Master of Fine Arts

The Master of Fine Arts is a terminal degree in studio art. Our selective and limited enrollment ensures regular individual contact with a dedicated, diverse faculty who are committed to a sustained professional exchange with each student. A collaboratively designed curriculum is augmented by regular critiques engaging all studio majors and faculty. Media experimentation is encouraged. Students must be able to apply and communicate a diverse body of knowledge of historical, cultural, contemporary, and aesthetic issues to their professional practice. Students are expected to articulate and defend their position within the context of contemporary art discourse.

Degree Requirements

Sculpture		36
ART 526	Graduate Sculpture	
Studio/Cognate Electives		15
Art History		9
Select 3 from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
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ARHS 550	Northern Renaissance	
ARHS 554	Italian Renaissance	
ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
ARHS 582	Architect Frank Lloyd Wright	
ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	
ARHS 589	Contemporary	
ARHS 591	Advanced Topics	
ARHS 592	Directed Study	

ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	
ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
ART 590	Teaching Practicum/Professional Practice	3
ART 696	Graduate Seminar	3
ART 600	Graduate Exhibition and Thesis	6
Total Hours		**72**

Studio Art

Master of Arts

The studio art concentration promotes advanced study in ceramics, painting, printmaking, graphic design, intermedia/photography, and sculpture. M.A. studio art students are required to produce a written thesis and, at the graduate committee's discretion, may be required to hold a thesis exhibition.

This course of study requires a baccalaureate degree in art or its equivalent for admission. Preparation should include twelve hours of art history, forty-five hours of studio art related to professional needs, and thirty-six hours of general education.

Degree Requirements

Studio Art		**18**
Cognates/Electives		**6**
Art History		**6**
Select 2 from the following:		
ARHS 501	Independent Study	
ARHS 507	Native American	
ARHS 510	Intro Curatorial Practice	
ARHS 520	Greek and Roman	
ARHS 531	Medieval	
ARHS 533	Medieval Architecture	
ARHS 538	History of Stained Glass	
ARHS 544	Art Theory	
ARHS 545	Modern Art Theory	
ARHS 548	Women in Art	
ARHS 550	Northern Renaissance	
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ARHS 560	Baroque	
ARHS 570	American	
ARHS 575	Nineteenth Century	
ARHS 580	Modern	
ARHS 581	Modern Architecture	
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ARHS 585	Print, Propaganda and Art	
ARHS 588	The Art of Andy Warhol	
ARHS 589	Contemporary	
ARHS 591	Advanced Topics	
ARHS 592	Directed Study	
ARHS 593	Special Topics	
ARHS 594	Seminar	
ARHS 595	Independent Study	

ARHS 601	Thesis	
ARHS 691	Advanced Topics	
ARHS 692	Directed Study	
ARHS 693	Special Topics	
ARHS 694	Seminar	
ART 696	Graduate Seminar	3
ART 600	Graduate Exhibition and Thesis	3
Total Hours		**36**

School of Music

Degrees Offered

- Master of Arts
- Master of Music
- Doctor of Musical Arts
- Doctor of Philosophy

The School of Music is an accredited institutional member of the National Association of Schools of Music, the only nationally recognized accrediting agency for professional music instruction. All programs comply with the objectives and guidelines required by this organization.

FACULTY

SCHOOL OF MUSIC DIRECTOR

- H. Keith Jackson - D.M.A. (Arizona State University)
  Trombone, Jazz Studies

DIRECTOR OF GRADUATE STUDIES

- Cynthia Babin Anderson - M.M. (Manhattan School of Music)
  Oboe, Theory

PROFESSORS

- Peter Amstutz - D.M.A. (Johns Hopkins University, Peabody Institute)
  Coordinator of Keyboard Instruments, Piano

- William P. Haller - D.M.A. (North Texas State University)
  Organ, Theory

- Andrew Kohn - Ph.D. (University of Pittsburgh)
  Coordinator of Theory and Composition, Double Bass, Theory

- James E. Miltenberger - D.M.A. (University of Rochester, Eastman School of Music)
  Piano, Piano Repertoire, Jazz

- Janet Robbins - Ph.D. (Ohio State University)
  Music Education

- William Skidmore - M.M. (University of Illinois)
  Cello, Chamber Music

- David Taddie - Ph.D. (Harvard University)
  Music Theory, Electronic Music

- Molly Weaver - Ph.D. (University of Michigan)
  Coordinator of Music Education, Instrumental Music Education

- John F. Weigand - D.M.A. (Florida State University)
  Coordinator of Woodwinds, Clarinet, Chamber Music

- Cecil B. Wilson - Ph.D. (Case Western Reserve University)
  Associate Provost, Musicology, 19-century Music, Orchestration

- John Winkler - D.M.A. (Northwestern University)
  Coordinator of Brass Instruments, Trumpet, Chamber Music

ASSOCIATE PROFESSOR

- Mitchell Arnold - D.M.A. (Northwestern University)
  Director of Orchestral Activities, Conducting

- David Bess - Ph.D. (West Virginia University)
  Music Education
- John Hendricks - M.M. (West Virginia University)
  Assistant Dean, Director of Bands, Coordinator of Conducting and Large Ensembles, Conducting
- Lynn Hileman - D.M.A. (University of Rochester, Eastman School of Music)
  Bassoon, Theory
- Michael Ibrahim - D.M.A. (Manhattan School of Music)
  Saxophone
- Hope Koehler - D.M.A. (University of Kentucky)
  Coordinator of Voice Studies, Voice
- Lucy Mauro - D.M.A. (Johns Hopkins University, Peabody Institute)
  Piano Pedagogy, Class Piano, Piano, Chamber Music
- Mikylah McTeer - D.M.A. (University of Houston, Moores School of Music)
  Coordinator of String Instruments, Violin, Chamber Music
- Paul Scea - M.M. (University of Iowa)
  Director and Coordinator of Jazz Studies, Jazz, Chamber Music, Theory
- Sandra Schwartz - Ph.D. (University of Miami)
  Choral Music Education
- Michael Vercelli - D.M.A. (University of Arizona)
  Director of World Music Performance Center
- George Willis - M.M. (Temple University)
  Coordinator of Percussion Studies

ASSISTANT PROFESSOR

- Nina Assimakopoulos - M.M. (Academy of Music and Performing Arts, Munich)
  Flute, Chamber Music
- Robert Chafin - M.M. Cincinnati Conservatory of Music
  Voice
- Dearl J. Drury - M.M. (West Virginia University)
  Marching Band, Varsity Band, Concert Band
- Andrea Houde - M.M. (Johns Hopkins University, Peabody Institute)
  Viola, String Pedagogy, Chamber Music
- Evan MacCarthy - Ph.D (Harvard University)
  Music History
- Kym Scott - M.M. (University of Queensland)
  Visiting Director of Choral Activities
- Travis Stimeling - Ph.D. (University of North Carolina-Chapel Hill)
  Music History
- Darko Velichkovski - M.A. (City University of New York)
  Visting Director of Music Industry

FACULTY EQUIVALENT ACADEMIC PROFESSIONAL

- Mark Benincosa - M.S. (West Virginia University)
  Recording Technology
- Christopher Nichter - M.M. (West Virginia University)
  Bands, Conducting

LECTURERS

- Scott Elliott - M.M. (Duquesne University)
  Guitar
- Jeanne Frieben - M.M. (West Virginia University)
  Clarinet
- Janna L. Kisner - M.Ed. (Waynesburg University)
  Music Education
- William Koehler - D.M.A. (University of Minnesota)
  Voice
- Rebecca Kreider - M.M. (Indiana University)

General Education Courses

- Robert Lauver - B.M. (Peabody Conservatory)
  Horn
- Diana B. Love - Ed.D. (Virginia Polytechnic Institute and State University)
  Music Education
- David P. McCollum - M.M. (Duquesne University)
  Tuba, Euphonium
- Adam Osmianski - M.M. (West Virginia University)
  General Education Courses
- Brian Plitnik - D.M.A. (West Virginia University)
  Trombone, Euphonium, Chamber Music
- Kathleen Shannon - D.M.A. (University of Miami)
  General Education Courses
- Mandy Spivak - D.M.A. (University of Miami)
  Voice
- Albert J. Wrublesky - M.M. (West Virginia University)
  Percussion
- Renee Wyatt - M.M. (West Virginia University)
  Music Education

PROFESSORS EMERITI

- John Beall
- James W. Benner - M.A. (Columbia University)
- Thomas S. Brown
- Philip J. Faini
- Mary T. Ferer
- Barton Hudson
- Christine B. Kefferstan
- Gerald Lefkoff
- Leo Horacek, Jr.
- Connie Arau Sturm
- Robert H. Thieme
- Gilbert Trythall
- Don G. Wilcox
  Director of Bands Emeritus
- Christopher Wilkinson

ASSOCIATE PROFESSORS EMERITI

- Joyce A. Catalfano
- Rose M. Crain
- John E. Crotty
- June D. Swartwout

Prospective graduate students in music are required to have completed the appropriate curriculum of undergraduate study in music at WVU or its equivalent at another institution of recognized-standing. For acceptance into a degree program, the applicant should make inquiry to the Director of Graduate Studies, School of Music, College of Creative Arts, P.O. Box 6111, Morgantown, WV 26506-6111.

Applicants for degree study in composition, music theory, music history, and performance must take diagnostic tests in music theory, music history, and piano proficiency. In addition, performance majors in voice and conducting take diagnostic tests in pedagogy and literature. Applicants for degree study in music education must take proficiencies in piano and voice. Applicants in music education have the option to take diagnostic exams in music history and music theory. The results of these tests may indicate the need for remedial study, which must be completed before admission to candidacy.

Admission to Masters Program

Applicants to the program leading to the degree of master of music must present necessary credentials for evaluation of previous training and experience to the School of Music. These include transcripts from all institutions previously attended showing a grade point average of at least 3.0 in all undergraduate study submitted through the WVU Office of Admissions. Applicants for music history and music theory must also submit scores from the Graduate Record Examination General Aptitude Test. Three letters of recommendation from individuals who are qualified to judge the applicant's

potential success as a graduate student in music may be submitted to the WVU Office of Graduate Admissions or directly to the Director of Graduate Studies in Music.

With the exception of applicants in composition, all applicants are also required to demonstrate, by audition, their level of attainment in a principal performance area. The evaluation of performance proficiency is based on technical ability, repertoire, and musicianship. A listing of representative material for each performance area, graded by proficiency level, is available upon request. A recording may be submitted in cases where travel makes an audition impractical. Each degree option has established standards which must be met for admission. For performance majors, the estimated proficiency level must be confirmed by a jury examination at the end of the first semester of performance study. Credit in performance may be counted toward degree requirements only after the proficiency-level prerequisite has been reached.

Applicants seeking admission as composition majors must submit representative compositions for evaluation and approval. When the application for composition is complete, it will be reviewed by the composition faculty. If this review is favorable, a representative of the composition faculty will contact the applicant to schedule an entrance audition and interview.

Applicants seeking admission as music theory or music history majors must submit a sample of writing, such as a term paper. A musical subject is recommended but not required.

Applicants to music education curricula must submit the following:

1. An essay describing and discussing your training, experiences, present interests, and career aspirations in the field of music education
2. A current résumé
3. A video recording of teaching, preferably a K-12 music class or rehearsal (Please submit a detailed lesson plan for each class or rehearsal presented on your video of teaching. When the application for music education is complete, it will be reviewed by the music education faculty. If this review is favorable, a representative of the music education faculty will contact the applicant to schedule an entrance interview and audition. Note: This is not required of those who are applying for the certification option.)

PROVISIONAL ADMISSION

Applicants whose admission profile does not meet the qualifications outlined above may be considered for acceptance as provisional students. If, upon completion of up to twelve semester hours of graduate study, they have achieved a minimum of a B (3.0) average and satisfied any previous undergraduate deficiencies or other conditions, such students may be accepted as degree students.

Admission to Doctor of Musical Arts Programs

Acceptance into doctoral programs is competitive. Applicants to the program leading to the D.M.A. must present necessary credentials for evaluation of previous training and experience. These include transcripts showing an average of at least a 3.0 grade point average in a minimum of twenty-eight hours in liberal arts studies submitted through the WVU Office of Admissions. Copies of programs of recent major recitals must be submitted directly to the director of graduate studies in music. Three letters of recommendation from individuals who are qualified to judge the applicant's potential success as a graduate student in music may be submitted to the WVU Office of Graduate Admissions or directly to the Director of Graduate Studies in Music. Normally, the admission process also includes an on-campus audition and interview with the faculty of the major performance area. Applicants to the D.M.A. in composition must also submit scores and recordings for review. Applicants to the D.M.A. in vocal pedagogy and performance must submit a letter detailing their previous pedagogic experience which states their purpose in attaining such a degree and a sample of their scholarly writing. Applicants who do not meet all of the criteria for regular admission to the D.M.A. degree program may be granted a provisional admission subject to the satisfactory completion of certain specified courses or the attainment of a specified grade point average within a semester's work.

Applicants for the D.M.A. in conducting must meet language prerequisites: at least two years of undergraduate study of one language (French, Italian, German, or Spanish) or appropriate undergraduate study in diction (English, French, Italian, German, or Latin). At the discretion of the conducting faculty, a demonstrated ability to read in a language other than English may be accepted as meeting the prerequisite. Students who have not taken the required courses at the undergraduate level may meet the prerequisite by passing a proficiency exam subsequent to admission or may be directed to take additional language or diction courses to address any deficiencies, as determined by the conducting faculty, and as appropriate to the expectations of the degree.

AUDITION REQUIREMENTS

Have a complete résumé and prepared list of your completed repertoire in hand for examination by the audition committee. On this list, using asterisks indicate those numbers that you have performed from memory. Auditions are approximately sixty minutes of performance. Live auditions are strongly recommended, but tapes or other recorded formats can be considered when travel distance poses a hardship.

The following repertoire guidelines are intended to be flexible and to encourage diversity of individual interests, but they also provide a sense of expected scope. Offering repertoire from all the categories listed below is not mandatory at your audition, but you should certainly choose a program that contains stylistic variety and represents your own strengths. Works customarily performed from memory in public recitals should be performed from memory at your audition.

PERCUSSION

- Keyboard

a. Major contemporary marimba work

b. Solo violin work (one movement) from J.S. Bach Sonatas and Partitas

c. Vibraphone solo of any style

d. Perform six orchestral excerpts (xylophone and glockenspiel)

- Snare Drum
  a. Solo or etude from the advanced classical repertoire

  b. Solo or etude from the advanced rudimental repertoire

  c. Three orchestral excerpts

- Drumset
  a. Perform at least four varying styles

  b. World percussion (optional) (Possibilities include steel drums, African drumming, taiko, etc.)

- Multi-media
  a. Video recording of last solo percussion recital that includes multiple percussion and chamber music (if possible)

PIANO

- A major Baroque work, such as a group of Scarlatti sonatas, a suite by Bach, or one or more preludes and fugues from the well-tempered Clavier
- A complete sonata, variation set, or similar work by Beethoven or another classical composer
- A major Romantic or Impressionist work
- Another work of your choice, preferably a major composition (or several shorter pieces) representative of twentieth-century style

COLLABORATIVE PIANO

- Sixty minutes of music, including a major instrumental sonata and art songs, as well as one solo memorized major work

VOICE

Have a prepared list of your previous vocal teachers and vocal coaches and a precise statement of your present language background, e.g., foreign language study, diction, phonetics, etc.

1. An Aria from an Oratorio: Handel, Haydn, or Mendelssohn
2. One selection of your own; preferably a major operatic aria
3. At least two selections from each of the four language categories
4. Italian - 17th and 18th-century, Aria by Mozart, 19th and 20th-century opera
5. German - An Aria by Bach, Lieder, Mozart, Schubert, Schumann, Brahms, Wolf, Mahler, Strauss
6. French - Art Songs: Debussy, Ravel, Faure, Poulenc
7. English - Early Songs: Purcell or Arne, Contemporary American and British songs (such as Britten, Menotti, or Floyd)

STRINGS

Audition repertoire for the D.M.A. in music performance should be chosen to demonstrate the applicant's current level of achievement. Early in the application process, potential students should contact the major teacher in the area and discuss audition repertoire possibilities. Suggested repertoire could include a concerto, sonata, show piece, solo Bach, and for the double bass, three major orchestral excerpts.

WOODWINDS, BRASS

Audition repertoire for the D.M.A. in music performance should be chosen to demonstrate the applicant's current level of achievement. Early in the application process, potential students should contact the major teacher in their area and discuss audition repertoire possibilities.

CONDUCTING

An on-campus audition with the WVU Wind Symphony, University Choir, or Symphony Orchestra is preferred, although video recorded auditions are allowed when great distance precludes a visit to campus. The student is encouraged to audition in his/her strongest performance area: wind band, choir, or orchestra. Further audition requirements are as follows:

1. The applicant will perform a conducting audition with an appropriate WVU ensemble which will consist of twenty–thirty minutes of rehearsal of repertoire to be assigned at least two weeks in advance by the appropriate conducting faculty.
2. The applicant will perform an audition on his/her major instrument or voice before appropriate music faculty. Those who have been away from solo performance for a period of several years may offer evidence of past proficiency (e.g. recital programs, letters, reviews, video or audio recording, etc.)
3. Knowledge of literature and techniques appropriate to the applicant's desired area of emphasis will be assessed by appropriate faculty.

4. Applicants desiring a choral emphasis will also be asked to demonstrate knowledge of appropriate vocal pedagogy within the choral rehearsal as well as appropriate piano skills.

Admission to the Doctor of Philosophy in Music Education Program

A prospective doctoral student in music education is required to have completed appropriate undergraduate and master's degrees in music or their equivalent at institutions of recognized standing. Also, an applicant must provide evidence of excellence in teaching and musicianship demonstrated during at least three years of successful, full-time contractual K-12 music teaching. Applicants to the program leading to the doctor of philosophy must present necessary credentials for evaluation of previous training and experience to the School of Music. These include transcripts showing at least a 3.0 grade point average in a minimum of twenty-eight hours in liberal arts studies submitted through the WVU Office of Admissions. The following items must be submitted directly to the Director of Graduate Studies in Music:

1. An essay describing and discussing your training, experiences, present interests, and career aspirations in the field of music education
2. A current résumé
3. A video recording of teaching, preferably a K-12 music class or rehearsal (Please submit a detailed lesson plan for each class or rehearsal presented on your video of teaching. When the application for music education is complete, it will be reviewed by the music education faculty. If this review is favorable, a representative of the music education faculty will contact the applicant to schedule an entrance interview and possible audition.)

Applicants who do not meet all of the criteria for regular admission to the Ph.D. degree program may be granted a provisional admission subject to the satisfactory completion of certain specified courses or the attainment of a specified grade point average within a semester's work.

In this Section:

1. MASTER OF MUSIC

2. DOCTOR OF MUSICAL ARTS

3.DOCTOR OF PHILOSOPHY IN MUSIC EDUCATION

Master of Music

The degree of master of music may be taken in music education, performance, composition, music theory, or music history.

ADDITIONAL REQUIREMENTS FOR MASTER'S DEGREE PROGRAMS

In addition to fulfilling the degree requirements for each specific program, the following pertains to all students in master's degree programs:

- Master's degree students must establish an overall grade point average of 3.0.
- A representative public recital is required of candidates majoring in performance. Composition majors must submit a composition in a large form as a thesis.
- All candidates for the master of music degree are required to participate for credit for two semesters (or summer sessions) in a performing group which meets at least two clock-hours per week and which is selected with the advisor's approval.

- A general comprehensive oral examination must be passed by all candidates for the master of music degree. Unsuccessful candidates may repeat this examination after a three-month period. The results of the second oral examination will normally be considered final. The examining committee will decide immediately after an unsuccessful second attempt whether a petition for a third attempt will be granted.
- Students must complete their programs within eight calendar years. Failure to do so will result in the loss of credit for courses taken at the outset of the program.

Doctor of Musical Arts

The primary objective of the doctor of musical arts degree is the recognition of the highest achievement in music performance and teaching. The principal objective of the degree is to prepare artist-pedagogues for careers in higher education and in the professional world.

The degree may be taken in performance and literature (with specialization in piano, collaborative piano, voice, percussion, flute, oboe, clarinet, saxophone, bassoon, horn, trumpet, trombone, tuba, low brass, violin, viola, cello, double bass, or conducting), vocal pedagogy and performance, or in composition. Historical and theoretical knowledge sufficient to support individualized interpretations for performers, original voice research for vocal pedagogues, and original creative work for composers is expected, as are writing and speaking skills needed to communicate clearly and effectively. To assist the student in achieving these objectives, the course of study includes requirements in performance or composition, pedagogy, academic coursework, and research.

The doctor of musical arts curriculum in conducting prepares students for careers in higher education and in the professional world. During the program of study, students will study repertoire and technique specific to ensembles in all three major performance areas: wind band, choir, and orchestra. Demonstration of knowledge, skill, expressive fluency, and general conducting competency will be developed through public performance preparation with all three areas; however, most performing will be completed in the student's primary area of emphasis.

CURRICULUM

The exact amount and nature of coursework undertaken will be determined by the student's advisor with the approval of the committee on graduate studies in light of previous preparation and field of specialization. A paradigm detailing recommended courses and other requirements is available upon request.

CANDIDACY

Upon completion of the requirements of the School of Music and the general WVU graduate studies requirements, the student will be recommended for admission to candidacy for the degree. These requirements are (in order of occurrence):

1. Pass written qualifying examinations satisfactorily to show the following:

- Broad knowledge in music theory and music history and literature
- In-depth knowledge of the literature of the field of specialization or of the craft of composition

2. Satisfactorily pass a comprehensive oral qualifying examination.

The qualifying examinations shall be considered one integral examination consisting of written and oral parts. If the first attempt is unsuccessful, the student is allowed to try the entire examination a second time. The second attempt will be considered final. The applicant's committee may elect to discourage a second attempt if the first does not indicate probable success upon repetition. Graduate students who have met these requirements and who have maintained a minimum average of B (3.0) in courses completed shall be admitted to candidacy.

RESIDENCY REQUIREMENTS

Completion of the requirements for this degree normally requires at least three years of full-time graduate work. A minimum of two consecutive semesters must be spent in full-time graduate study at WVU beyond the master's degree or its equivalent.

ACADEMIC REQUIREMENTS

- Academic requirements include courses in music theory, music history, and music literature.
- Academic requirements for the D.M.A. in vocal pedagogy will also include courses in vocal pedagogy, voice pathology, and voice acoustics/teaching technology.

PERFORMANCE REQUIREMENTS (FOR D.M.A. IN PERFORMANCE)

Performance requirements include private lessons, master classes in applied repertory, and public performance of at least two solo recitals and other types of presentations appropriate for the preparation of an artist-teacher, such as chamber music programs, concerto performances, lecture recitals, major roles in opera oratorio, musical theater, or major accompaniments. Collaborative piano requirements include private lessons, master classes in applied collaborative repertory, and public performances of collaborative vocal and instrumental repertoire, along with presentations appropriate for the preparation of a collaborative artist-teacher, such as chamber music programs, concerto performances, piano in large ensemble works, major large ensemble accompaniments, and lecture recitals. Credit for each public performance is determined in advance, during the first semester of study, along

with the establishment of the student's doctoral committee. A performance prospectus indicating projected performance repertoire is prepared by the student in consultation with his/her committee and the major ensemble directors as appropriate.

COMPOSITION REQUIREMENTS (FOR D.M.A. IN COMPOSITION)

Composition requirements include private lessons and the creation of a composition portfolio. The student will be encouraged by the major professor to compose works in a timely manner in a wide variety of genres from which can be drawn a select number of pieces for the portfolio. The comprehensive examination determines the admission to candidacy and is normally taken after the successful completion of required coursework in music theory and music history. Work on the major project and research document normally will commence only after admission to candidacy. The candidate will submit to his/her doctoral committee for approval a prospectus for the portfolio to include the proposed major work, the proposed research document, and the other compositions with proposed credit weighting for each.

RESEARCH REQUIREMENTS (FOR ALL D.M.A. PROGRAMS)

Research requirements are intended to develop theoretical and historical investigative techniques sufficient to enable the performer to form valid individualized interpretations and to assist the composer in developing an original style. These requirements consist of the course Music Research and Bibliography (MUSC 771); for composers, a doctoral seminar; and for all students, a research project culminating in an extended written study related to the student's area, although not necessarily constituting original research. The research project for vocal pedagogy and performance students must include original research. Projects will be supervised by an approved graduate faculty member who is a member of the student's doctoral committee in consultation with the entire doctoral committee.

FINAL EXAMINATION

For performers, the final examination will consist of a major solo recital (which will be regarded as the equivalent of the Ph.D. dissertation defense). Immediately following the public performance, the candidate's committee will meet to evaluate the performance as evidence of mature musicianship and finished technique. The final recital will not occur in the same semester as the qualifying examination.

For composers, when all compositions and the major project have been approved and all other requirements have been fulfilled, the candidate's doctoral committee will administer the final oral examination. At the option of the committee, a written examination may also be required. The final examination(s) shall be concerned with the compositions, the major project, and the candidate's grasp of the field of specialization and its relation to other fields. The final examination will not be given in the same semester as the qualifying examination.

For vocal pedagogy and performance candidates, the final examination will be the oral defense of the doctoral research document.

TIME LIMITATION

Following admission to candidacy, doctoral students are allowed five years to complete all remaining degree requirements. An extension of time may be permitted only upon repetition of the qualifying examination and completion of any other requirements specified by the student's doctoral committee.

Doctor of Philosophy in Music Education

The doctor of philosophy curriculum in music education prepares students for careers as teachers and researchers in higher education. A main purpose of the program is to develop skilled and knowledgeable professionals who will challenge the present and enrich the future with significant contributions to the field through teaching, research, and service. Acceptance into the doctoral program is competitive.

EXAMINATIONS

WRITTEN QUALIFYING

Each student must demonstrate the following areas of knowledge:

- A broad knowledge in the fields of music history and music theory
- Appropriate knowledge in the cognate field
- In-depth knowledge in the field of music education

ORAL QUALIFYING

The student's doctoral committee will administer a comprehensive oral examination integral with the written examinations; passage of all is the basis for formal admission to candidacy.

CANDIDACY

Upon completion of the requirements of the School of Music and the general WVU graduate studies requirements, the student will be recommended for admission to candidacy for the degree. These requirements are (in order of occurrence):

1. Complete all coursework.

2. Complete a major project from a graduate music education seminar. (This project should be appropriately refined and presented publicly under the supervision of a member of the graduate music education faculty. A concise written proposal articulating the scope and context of the project and the nature of its intended forum must be submitted to the graduate music education faculty for consensus approval.)

3. Pass written qualifying examinations demonstrating the following:
   a. Broad knowledge in music history and music theory
   b. Appropriate knowledge in the cognate field (usually integrated into the music education exam)
   c. In-depth knowledge in the field of music education

4. Pass a comprehensive oral qualifying examination.

The qualifying examinations shall be considered as one integral examination consisting of the written and oral parts. If the first attempt is unsuccessful, the student is allowed to try the entire examination a second time. The second attempt will be considered final. The applicant's committee may elect to discourage a second attempt if the first does not indicate probable success upon repetition.

DISSERTATION PROSPECTUS

1. The requirement for doctoral seminars must be completed before the presentation of the dissertation prospectus.

2. The prospectus must include the following: table of contents, introduction, statement of purpose, research hypothesis, summary of related literature, specifics of methodology, research design, data collection process, analysis procedures, appendices, and a comprehensive bibliography.

DISSERTATION

The candidate must submit a dissertation produced at WVU under the direction of a major professor that demonstrates a high-order of independent scholarship, originality, and competence in research and that makes an original contribution to the field of specialization.

After the dissertation has been approved and all other requirements have been fulfilled, the candidate's doctoral committee will administer the final oral examination. However, a final examination will not be given in the same semester as the qualifying examination. At the option of the student's committee, a final written examination may also be required. The final examination(s) shall be concerned with the dissertation, its contribution to knowledge, its relation to other fields, and the candidate's grasp of the field of specialization.

RESIDENCE REQUIREMENTS

Completion of the requirements for this degree normally requires at least three years of full-time graduate work. A minimum of two consecutive semesters must be spent in residence in full-time graduate study at WVU beyond the master's degree or its equivalent.

TIME LIMITATION

Following admission to candidacy, Ph.D. students are allowed five years to complete all remaining degree requirements. An extension of time may be permitted only upon repetition of the qualifying examination and completion of any other requirements specified by the student's doctoral committee.

Collaborative Piano

Degrees Offered

- Master of Music in Collaborative Piano
- Doctor of Musical Arts in Collaborative Piano

Applicants must earn a Performance Level ten for admission. Undergraduate piano performance or collaborative piano degree required. Jury is required at end of first semester (solo/collaborative). Students need to have appropriate amount of diction at undergraduate level or they will be required to register for diction for every semester in residence.

Degree Requirements

Overall GPA of 3.0 or higher required.

MUSC 700E	Performance:Piano	8
MUSC 771	Music Research and Bibliography	3
MUSC 689	Master's Recital (Vocal)	2
MUSC 689	Master's Recital (Instrumental)	2
MUSC 647	Chamber Music: Piano	2
Complete one Music Theory course and one Music History course from the following		5-6
Music Theory:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	

MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Music History:		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Music Electives (no more than four hours in the major performance area)		7-8
Ensembles (two semesters)		2
Comprehensive Oral Examination		
Total Hours		**31-33**

ADDITIONAL REQUIREMENTS

- A representative public recital is required of candidates majoring in performance.
- All candidates for the master of music degree are required to participate for credit for two semesters (or summer sessions) in a performing group which meets at least two clock-hours per week and which is selected with the advisor's approval.
- A general comprehensive oral examination must be passed by all candidates for the master of music degree.

Degree Requirements

MUSC 700	Performance	16
MUSC 771	Music Research and Bibliography	3
Music History and Literature		
Selected from the following including at lease one doctoral level seminar:		9
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	

MUSC 794	Seminar	
Music Theory		6
Selected from the following including at least one doctoral level seminar:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 764	Compositional Techniques in Contemporary Music	
MUSC 763	Analytical Techniques	
Recitals/Research		20
MUSC 788	Doctoral Recital (Minimum of 12 credits required)	
MUSC 797	Research (Minimum of 2 credits required)	
Master Class in Applied Repertoire		6
MUSC 730	Master Class in Applied Repertoire: Keyboard (Repeated)	
Written Qualifying Examination		
Comprehensive Oral Qualifying Examination		
Final Oral Examination of Reasearch and Performance of Final Recital		
Total Hours		**60**

Composition

Degrees Offered

- Master of Music in Composition
- Doctor of Musical Arts in Composition

Applicants must demonstrate a piano proficiency (level four); evaluation of previously completed compositions at a graduate major level.

Degree Requirements

Overall GPA of 3.0 or higher required.

Composition		6
MUSC 660	Composition (Repeated)	
MUSC 771	Music Research and Bibliography	3
MUSC 764	Compositional Techniques in Contemporary Music	3
MUSC 761	Theory Topics	3
MUSC 762	Pedagogy of Theory	3
Music Electives, including at least one of the following:		8
MUSC 465	Electronic Music	
MUSC 763	Analytical Techniques	
MUSC 765	Transcription and Arranging	
MUSC 698	Thesis or Dissertation	4
Composition/Thesis		
Ensemble (two semesters)		2
Comprehensive Oral Examination		
Total Hours		**32**

ADDITIONAL REQUIREMENTS

- Composition majors must submit a composition in a large form as a thesis.
- All candidates for the master of music degree are required to participate for credit for two semesters (or summer sessions) in a performing group which meets at least two clock-hours per week and which is selected with the advisor's approval.
- A general comprehensive oral examination must be passed by all candidates for the master of music degree.

Degree Requirements

Composition		18
MUSC 660	Composition (Repeated)	
Music History and Literature		9
Selected from the following including at least one doctoral level seminar:		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Music Theory		9
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
One additional course selected from the following:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 771	Music Research and Bibliography	3
MUSC 766	Composition Pedagogy	3
MUSC 797	Research (Project)	6
MUSC 797	Research (Compositional Portfolio)	14
Written Qualifying Examination		
Comprehensive Oral Qualifying Examination		
Final Oral Examination		
Total Hours		**62**

Conducting

Degrees Offered

- Master of Music in Conducting

- Doctor of Musical Arts in Conducting

Degree Requirements

Overall GPA of 3.0 or higher required.

MUSC 700	Performance (major performance area)	8
MUSC 771	Music Research and Bibliography	3
Conducting		6
MUSC 710	Conducting (Repeated)	
Select one survey course from the following in the major performance area		3
MUSC 631	Survey of Orchestral Music	
MUSC 632	Survey of Wind Music	
MUSC 633	Survey of Vocal Music	
Select one techniques course from the following in the secondary area		2
MUSC 780	Choral Techniques	
MUSC 781	Instrumental Techniques	
Music Theory		3
Select one of the following:		
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Complete one Music Theory or Music History course from the following:		2-3
Music Theory		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
If not taken above:		
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Music History		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
MUSC 689	Master's Recital (Qualifying Recital)	2
MUSC 689	Master's Recital (Major Recital)	4

Ensemble (2 semesters)		2
Comprehensive Oral Examination		
Total Hours		**35-36**

ADDITIONAL REQUIREMENTS

- All candidates for the master of music degree are required to participate for credit for two semesters (or summer sessions) in a performing group which meets at least two clock-hours per week and which is selected with the advisor's approval.
- A general comprehensive oral examination must be passed by all candidates for the master of music degree.

Degree Requirements

MUSC 700	Performance (major performance area)	16
Conducting		6
MUSC 710	Conducting (Repeated)	
MUSC 771	Music Research and Bibliography	3
MUSC 670	Perspectives of Music History (or another graduate level Music History course as determined by graduate entrance examination)	3
Select one survey course from the following in the secondary area or a Music History course		3
MUSC 631	Survey of Orchestral Music	
MUSC 632	Survey of Wind Music	
MUSC 633	Survey of Vocal Music	
Music History		3
Select one of the following:		
MUSC 731	Keyboard Literature (piano principals only)	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Doctoral seminar in Music Analysis		3
Music Theory		3
Selected from the following:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Recitals/Research		20
MUSC 788	Doctoral Recital (Minimum of 12 credits required)	
MUSC 797	Research (Minimum of 2 credits required)	
Written Qualifying Examination		
Final Oral Examination of Research and Performance of Final Recital		
Total Hours		**60**

Jazz Pedagogy

Degree Offered

- Master of Music in Jazz Pedagogy

Admission to the program requires a score of level nine in the major performance area, piano proficiency (level three), and one year of jazz pedagogy/group or equivalent teaching experience.

Degree Requirements

Overall GPA of 3.0 or higher required.

MUSC 700	Performance (major performance area)	8
MUSC 771	Music Research and Bibliography	3
MUSC 689	Master's Recital	2
Jazz Performance/Pedagogy		6
MUSC 634	Jazz Performance and Pedagogy (Repeated)	
Complete one Music Theory course or one Music History course from the following:		2-3
Music Theory		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Music History		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Music Electives		4-5
MUSC 797	Research	4
Ensemble (two semesters)		2
Comprehensive Oral Examination		
Total Hours		**31-33**

Music Education

Degrees Offered

- Master of Music in Music Education
- Doctor of Philosophy in Music Education

FIELD STUDY OPTION

This degree option emphasizes teaching and includes opportunities to integrate performance studies and research with a school-based field study that demonstrates application of knowledge and skills from graduate study as a culminating project.

RECITAL OPTION

This degree option emphasizes performance studies and includes opportunities to integrate research and teaching with a representative public recital that demonstrates advanced performance competence as a culminating project.

THESIS OPTION

This degree option emphasizes research and includes opportunities to integrate performance and teaching with an original thesis that demonstrates advanced research and writing competence as a culminating project.

CERTIFICATION OPTION

This degree option is designed for persons who obtained an undergraduate degree in music other than music education. Coursework (including student teaching) leads to a professional certificate (birth-adult music, West Virginia) and is combined with a master's degree in music education with the generation of a professional portfolio as a culminating project. Students begin the program with a series of undergraduate courses that are necessary for certification. This block of undergraduate courses ranges from zero to twenty credits depending on the student's previous coursework.

Degree Requirements

Ensemble (2 Semesters)		2
MUSC 783	Foundations of Music Education	3
MUSC 784	Introduction to Research in Music Education	3
Advanced seminars [*]		6
Complete one Music Theory course and one Music History course from the following:		5-6
Music Theory:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Music History:		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	

MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Field Study, Recital, and Thesis Options [**]		
Select 1 of the following options:		12
Field Study		
MUSC 500 or MUSC 700 Performance (4 hours)		
Master's Field Study (4 hours)		
Music Electives (4 hours)		
Recital Option		
MUSC 500 or MUSC 700 Performance (8 hours)		
MUSC 689	Master's Recital (2 hours)	
Music electives (2 hours)		
Thesis Option		
MUSC 500 or MUSC 700 Performance (4 hours)		
MUSC 698	Thesis or Dissertation (4 hours)	
Music Electives (4 hours)		
Total Hours		**31-32**

[*] Advanced seminars in music education, methods, workshops, and directed studies. (Maximum of two hours from workshops; maximum of two hours from directed studies.)

[**] Certification Option: In lieu of completing the Field Study, Recital, or Thesis Option, students may complete the Core Requirements and the Certification Requirements to earn the Masters Degree in Music Education and be eligible for certification.

CERTIFICATION REQUIREMENTS

C&I 491	Professional Field Experience	4
Select one of the following:		3
EDP 600	Educational Psychology	
EDP 700	Psychological Foundations of Learning	
MUSC 200	Fundamentals of Conducting	2
MUSC 201	Conducting and Score Interpretation	2
MUSC 202	Conducting and Rehearsing	2
MUSC 280	Woodwind Instrument Pedagogy	2
MUSC 281	Brass Instrument Pedagogy	2
MUSC 282	String Instrument Pedagogy	2
MUSC 283	Percussion Instrument Pedagogy	2
MUSC 284	Vocal Pedagogy	2
MUSC 380	Instrumental Methods and Technology Applications	3
MUSC 381	Choral Music Methods and Technology Applications	3
MUSC 382	General Music Methods and Technology Applications	3
MUSC 487	Student Teaching Seminar	2
MUSC 491	Professional Field Experience	10
MUSC 500 or MUSC 700	Performance	4
RDNG 422	Reading in the Content Areas	3
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 601	Academic Interventions for Special Needs	3
Total Hours		**57**

Degree Requirements

Music Education Courses	16
Additional Required Courses (Music History, Music Theory, Music Composition, Statistics, Educational Psychology)	11-12

Cognate Courses (9 credits must be in the same discipline)		12
Electives		8-9
Major Project from a graduate music education seminar		
Written Qualifying Examination		
Oral Qualifying Examination		
MUSC 797	Research	12
Total Hours		**59-61**

Music History

Degree Offered

- Master of Music in Music History

Admission to the program requires an audition on the principal instrument, submission of writing sample and GRE Scores, two semesters or equivalent proficiency in one language (French, German, Italian, or a language pertaining to the thesis topic), four semesters of undergraduate music theory study, and three semesters of undergraduate music history study.

Degree Requirements

Overall GPA of 3.0 or higher required.

MUSC 771	Music Research and Bibliography	3
Music History		6
Select two of the following:		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 670	Perspectives of Music History	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
MUSC 591/791	Advanced Topics	6
Music Theory		2-3
Select one of the following:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
MUSC 698	Thesis or Dissertation	4
MUSC 700	Performance (major performance area)	8
Electives		4
Ensembles (two semesters)		2

Comprehensive Oral Qualifying Examination	
Total Hours	**35-36**

Music Industry

Degree Offered

- Master of Arts in Music Industry

MUSIC INDUSTRY - MA

The music industry is a vibrant, multi-billion dollar global industry, vast in scope and reach, offering a product that is deeply ingrained into the fabric of every country and culture, across social strata, around the world. As such, it offers extensive professional opportunities to those who are trained, knowledgeable, and versed in its systems, methods, and practices.

The Master of Arts Program in Music Industry at the School of Music at West Virginia University offers such knowledge and training by providing an engaging, systematic, and rigorous course of study leading to analytical, creative, regulatory, and entrepreneurial understanding and skills necessary to succeed in today's complex and challenging music industry field.

The program is offered online as a high quality graduate-level distance-learning opportunity. The program will provide all students possessing appropriate interest, qualifications, and ambition, regardless of their geographic location, access to extensive academic training and acquisition of professional skills necessary for building or furthering their careers in the music industry.

Admissions and Performance Standards

Admission is selective and competitive. Minimum application materials will include the following:

- a bachelor's degree from an accredited university and a GPA of 3.0 or higher;
- GRE results with minimum scores including 153 on the verbal, and 144 on the quantitative GRE sections. (The GRE requirement may be waived if the student's Bachelor's Degree GPA is 3.3 or higher (on 4.0 scale), and/or if his/her professional experience in the industry exceeds 5 years, with strong academic and/or professional recommendations.);
- curriculum vitae
- a 500 word essay describing student's professional preferences, goals and aspirations.

Course Requirements

If a student has not already completed the following Undergraduate course(s) prior to registering for the program, they must complete them during the first year of the program:

- Bachelor's Degree in Music - Undergraduate Accounting / Financial Management Course
- Bachelor's Degree in Business - Undergraduate Music Appreciation Course
- Other Bachelor Degrees - Undergraduate Accounting / Financial Management Course, Undergraduate Music Appreciation Course.

Degree Requirements

Music Industry Foundations Module (9 credits)

MUSC 611	Music Industry Regulations	3
Select two courses from the following:		6
MUSC 610	Foundations of Recording Industry	
MUSC 616	Foundations of Music Publishing Industry	
MUSC 617	Development of Music Technology	
Music Commerce, Management, and Operations Module (21 credits)		
MUSC 612	Music Product Advancement	3
MUSC 613	Music Performance Organization and Commerce	3
MUSC 614	Advanced Recording Industry	3
MUSC 615	Advanced Music Publishing	3
Select three from the following:		9
MUSC 618	Non-Profit Music Industry	
MUSC 619	Music in Multi-Media	
MUSC 620	International Music Industry	
MUSC 621	Artist Management	

MUSC 622	Online Music Industry	
Music Production Methods and Technology Module (6 credits)		
Select two from the following:		6
MUSC 623	Recording Production	
MUSC 624	Live Music Production	
MUSC 625	Digital Music Production	
Industry Project (3 credits)		
MUSC 626	Industry Project	3
Total Hours		**39**

Suggested Plan of Study

The required Music Industry Foundations course, MUSC 611, must be taken prior to any of the required and elective Music Commerce, Management, and Operations Module courses can be taken. All of the other elective courses can be taken anytime. MUSC 626 can only be taken after all required and elective courses are successfully completed, and a student has earned 36 credits in the program.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
MUSC 611	3	MUSC 614	3	Select one of the following:	3
MUSC 615	3	Select one of the following:	3	MUSC 618	
		MUSC 610		MUSC 619	
		MUSC 616		MUSC 620	
		MUSC 617		MUSC 621	
		MUSC 613	3	MUSC 622	
		Select one of the following:	3	Select one of the following:	3
		MUSC 610		MUSC 623	
		MUSC 616		MUSC 624	
		MUSC 617		MUSC 625	
	6		**12**		**6**

Second Year

Fall	Hours	Spring	Hours
MUSC 612	3	Select one of the following:	3
Select one of the following:	3	MUSC 618	
MUSC 618		MUSC 619	
MUSC 619		MUSC 620	
MUSC 620		MUSC 621	
MUSC 621		MUSC 622	
MUSC 622		MUSC 626	3
Select one of the following:	3		
MUSC 623			
MUSC 624			
MUSC 625			
	9		**6**

Total credit hours: 39

Music Theory

Degree Offered

- Master of Music in Music Theory

Admission to the program requires a score of level eight in the major performance area, piano proficiency (level four), equivalent undergraduate courses of MUSC 461 16th-century counterpoint and 18th-century counterpoint (MUSC 461 and MUSC 462 will be required if not taken at the undergraduate level.)

Degree Requirements

Overall GPA of 3.0 or higher required.

MUSC 771	Music Research and Bibliography	3
MUSC 763	Analytical Techniques	3
MUSC 764	Compositional Techniques in Contemporary Music	3
MUSC 762	Pedagogy of Theory	3
MUSC 761	Theory Topics	3
Music History		3
Select one Music History course from the following:		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Electives		8
MUSC 698	Thesis or Dissertation	4
Ensemble (two semesters)		2
Comprehensive Oral Examination		
Total Hours		**32**

Performance

Degrees Offered

- Master of Music in Performance
- Doctor of Musical Arts in Performance

PERFORMANCE MAJORS MAY SPECIALIZE IN THE FOLLOWING:

- piano
- voice
- percussion
- flute
- oboe
- clarinet
- bassoon
- saxophone
- horn

- trumpet
- trombone
- tuba
- violin
- viola
- cello
- double bass
- guitar

Degree Requirements

Overall GPA of 3.0 or higher required.

MUSC 700	Performance (major performance area)	8
MUSC 689	Master's Recital	4
MUSC 689	Master's Recital	2
MUSC 771	Music Research and Bibliography	3
Complete one Music Theory course and one Music History course from the following:		5-6
Select one Music Theory course from the following:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Music Electives (no more than four hours in the major performance area)		7-8
Select one Music History course from the following:		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Ensemble (two semesters)		2
Comprehensive Oral Examination		
Total Hours		**31-33**

Degree Requirements

MUSC 771	Music Research and Bibliography	3
MUSC 700	Performance (major performance area)	16
Music History and Literature		9

Selected from the following including at least one doctoral level seminar:		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Music Theory		6
Selected from the following with at least one doctoral level seminar:		
MUSC 460	Upper-Division Composition	
MUSC 461	Counterpoint	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
MUSC 730	Master Class in Applied Repertoire	6
Recital/Research		20
MUSC 788	Doctoral Recital (Minimum 12 credits required)	
MUSC 797	Research (Minimum 2 credits required)	
Written Qualifying Examination		
Comprehensive Oral Qualifying Examination		
Final Oral Examination of Reasearch and Performance of Final Recital		
Total Hours		**60**

Piano Pedagogy

Degree Offered

- Master of Music in Piano Pedagogy

Degree Requirements

Overall GPA of 3.0 or higher required.

Piano Performance		8
MUSC 700E	Performance: Piano (Repeated)	
MUSC 771	Music Research and Bibliography	3
MUSC 689	Master's Recital	2
Keyboard Performance/Pedagogy		6
MUSC 630	Keyboard Performance and Pedagogy (Repeated)	
Pedagogy Project		4
MUSC 692	Directed Study	

Complete one Music Theory course or one Music History course from the following:		2-3
Music Theory		
MUSC 460	Upper-Division Composition	
MUSC 462	Counterpoint	
MUSC 463	Analysis of Eighteenth and Nineteenth Century Music	
MUSC 464	Analysis of Twentieth Century Art Music	
MUSC 465	Electronic Music	
MUSC 466	Electronic Music-Digital Audio	
MUSC 468	Jazz Harmony	
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Music History		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 591	Advanced Topics	
MUSC 670	Perspectives of Music History	
MUSC 731	Keyboard Literature	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
Music Electives		4-5
Ensembles (2 semesters)		2
Comprehensive Oral Examination		
Total Hours		**31-33**

Vocal Pedagogy and Performance

Degree Offered:

- Doctor of Musical Arts in Vocal Pedagogy and Performance

The School of Music is currently not accepting applications for the DMA Vocal Pedagogy and Performance program.

Entrance requirements: audition; 1 year of college study of French, German and Italian; proof of piano proficiency (equivalent of level 3 at WVU School of Music); entrance exams in music history, music theory, and vocal pedagogy

Degree Requirements

Performance: Voice		8-12
MUSC 700I	Performance: Voice (Repeated)	
Master Class in Applied Repertoire		4
MUSC 730A	Master Class in Applied Repertoire: Voice (Repeated)	
Music Theory		3
Select one of the following:		
MUSC 761	Theory Topics	
MUSC 762	Pedagogy of Theory	
MUSC 763	Analytical Techniques	
MUSC 764	Compositional Techniques in Contemporary Music	
Music History		6

Select two of the following (must include at least one 700 level course):		
MUSC 470	European Music before 1500	
MUSC 471	Music of the Sixteenth and Seventeenth Centuries	
MUSC 472	Music of the Eighteenth Century	
MUSC 473	Music of the Nineteenth Century	
MUSC 474	Twentieth and Twenty-First Century Music	
MUSC 475	History of Jazz	
MUSC 670	Perspectives of Music History	
MUSC 791	Advanced Topics	
MUSC 792	Directed Study	
MUSC 793	Special Topics	
MUSC 794	Seminar	
MUSC 771	Music Research and Bibliography	3
Research, Roles, and Recitals		20
MUSC 797	Research (6-8 credits)	
MUSC 788	Doctoral Recital (8-12 credits)	
MUSC 704	Opera Theatre (Roles as assigned, 0-4 credits)	
MUSC 787	Vocal Pedagogy Internship (Post-candidacy, 0-2 credits)	
Pedagogy		
MUSC 432	Methods and Pedagogy	2
MUSC 433	Methods and Pedagogy	2
Applied Voice Teaching Techniques		4-6
MUSC 720	Applied Voice Teaching Technique (Repeated)	
MUSC 721	Voice Acoustics/Teaching Technology	2
MUSC 722	Vocal Repertoire-Teaching: English and American	1
MUSC 723	Vocal Repertoire-Teaching: Italian and Spanish	1
MUSC 724	Vocal Repertoire-Teaching: German	1
MUSC 725	Voice Repertoire-Teaching: French	1
MUSC 726	Vocal Repertoire-Teaching: Opera/Oratorio	1
MUSC 727	Vocal Repertoire-Teaching: Musical Theatre	1
SPA 793	Issues in Voice Pathology	1
Written Qualifying Examination		
Comprehensive Oral Qualifying Examination		
Final Oral Examination of Research and Performance of Final Recital		
Total Hours		**61-67**

School of Theatre & Dance

e-mail: theatre@mail.wvu.edu

The School of Theatre & Dance offers the Master of Fine Arts (MFA) as the terminal degree in with the following majors:

- Acting
- Scene Design & Technology
- Costume Design & Technology
- Lighting Design & Technology

The MFA Theatre program is accredited by the National Association of Schools of Theatre (NAST).

FACULTY

DIRECTOR

- Joshua Blackmer Williamson - M.F.A. (University of Wisconsin, Madison)
  Associate Professor of Lighting & Sound Design

PROFESSORS

- Mary McClung - M.F.A. (WVU)
  Costume Design & Technology
- Jerry McGonigle - M.F.A. (American Conservatory Theatre)
  Acting, Directing

ASSOCIATE PROFESSOR

- Jessica Morgan Bishop - M.F.A. (Ohio State University)
  Stage Movement
- Bryce Britton - M.F.A. (Ohio U)
  Musical Theatre
- Laura Hitt - M.A. (Brown University)
  Voice and Speech
- Robert Klingelhoefer
  Scene Design
- Jay Malarcher - Ph.D. (Louisiana State University)
  Theatre History and Criticism
- William J. Winsor - M.F.A. (Ohio State University)
  Associate Dean, Scenography

ASSISTANT PROFESSORS

- Lee Blair - M.F.A. (Universtiy of Florida)
  Acting
- Yoav Kaddar - M.F.A., Ph.D.
  Dance
- Roger Smart - M.F.A. (University of California, Irvine)
  Acting, Directing

CLINICAL ASSISTANT PROFESSOR

- Alan McEwen - M.F.A. (University of Oregon)
  Lighting, Sound Design
- Steven Neuenschwander - M.F.A. (Yale University)
  Production Management, Technical Direction
- Andrea Washington-Brown - M.F.A.
  Costume Technology

Admission

Prospective candidates for the degree of master of fine arts in theatre must have a B.A. or B.F.A. degree or equivalent from an accredited institution. Ordinarily, a minimum of thirty semester hours in theatre at the undergraduate level is expected to have been completed with a grade point average of no less than 2.75; although, students with an undergraduate grade point average of 2.25 to 2.75 may be admitted with probationary status.

Auditions

Applicants must audition/interview to gain admittance into the program. Applicants intending to specialize in acting must submit a complete resume of their acting experience, at least two letters of recommendation from acting coaches or directors, and must present an audition before at least one member of the acting faculty. Those intending to specialize in design must submit a complete portfolio of their work, a resume of their design experience, and at least two letters of recommendation from design instructors or directors. An interview with members of the design faculty is also required.

For further details regarding these requirements, address inquiries to the School of Theatre & Dance, West Virginia University, P.O. Box 6111, Morgantown, WV 26506-611, visit theatre.wvu.edu, or call (304) 293-2020.

Advanced Standing

Students may be eligible for eighteen hours of graduate transfer credit for advanced-standing if they meet the regular requirements of graduate admission. Students admitted with advanced standing are required to be in residence at WVU for a minimum of two semesters and a summer session. The request for advanced standing should be made to the division chairperson at the time of application.

Acting

MASTER OF FINE ARTS IN ACTING

The M.F.A. acting program is an intensive three-year course of study designed to train students for the professional theatre world and its related fields including teaching pedagogy. The graduate acting studio program offers conservatory-style actor training in all aspects of acting, voice/speech, and movement. In addition to the studio program, students are required to complete coursework in theatre history, text analysis, criticism, and research methods.

MFA acting students are accepted every three years and must follow the prescribed course sequence in the order that they are offered. The next entrance date will be Fall 2015 and The School of Theatre and Dance will be recruiting and auditioning students in the 2014-15 academic year.

Graduation from the program is contingent upon completion of the following:

- Three years of graduate courses and production work totaling at least sixty-six designated credit hours and three elective graduate credits
- A final thesis project including both a performance of a significant role or roles and a thesis paper exploring aspects of the creation and performance of this role
- Oral defense of this thesis
- A successful evaluation of the student's performance in the graduate acting studio program at the end of each semester of study

Degree Requirements

Theatre Studies

THET 610	Research Methods	3
THET 690	Teaching Practicum	3
THET 694	Seminar	9
THET 698	Thesis or Dissertation	3
Performance Studies		
THET 540	Graduate Vocal Techniques	2
THET 541	Graduate Voice Techniques	2
THET 542	Graduate Stage Movement 1	2
THET 543	Graduate Stage Movement 2	2
THET 544	Graduate Acting Studio 1	3
THET 545	Graduate Acting 2	3
Graduate Scene Study 1 (take twice, 1 credit each)		2
THET 546	Graduate Scene Study 1	
Graduate Scene Study 2 (taken twice, 1 credit each)		2
THET 547	Graduate Scene Studio 2	
Graduate Production Practicum (taken 5 times, 1 credit each)		5
THET 600	Graduate Production Practicum	
THET 640	Advanced Graduate Vocal Techniques	2
Adv Grad Stage Movement (taken twice, 2 credits each)		4
THET 642	Advanced Graduate Stage Movement	
THET 644	Advanced Graduate Acting Studio 1	3
THET 641	Advanced Graduate Vocal Techniques 2	2
THET 643	Advanced Graduate Stage Movement 2	1
THET 645	Advanced Acting Studio	3
THET 740	Advanced Graduate Vocal Techniques 3	2
THET 750	Graduate Showcase 1	1
THET 650	Graduate Study in Musical Theatre	2
THET 651	Graduate Acting for the Camera	2
THET 751	Showcase Development	2
Advance Study Elective		3
Oral Defense		

Evaluation (semesterly)

Total Hours	**68**

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours
THET 540	2	THET 541	2
THET 542	2	THET 543	2
THET 544	3	THET 545	3
THET 546	1	THET 546	1
THET 610	3	THET 600	1
		THET 694	3
	11		**12**

Second Year

Fall	Hours	Spring	Hours
THET 640	2	THET 641	2
THET 642	2	THET 643	1
THET 644	3	THET 645	3
THET 600	1	THET 600	1
THET 547	1	THET 547	1
THET 694	3	THET 694	3
	12		**11**

Third Year

Fall	Hours	Spring	Hours
THET 600	1	THET 698	3
THET 642	2	THET 600	1
THET 740	2	THET 751	2
THET 750	1	Select one of the following:	3
THET 650	2	THET 690	
THET 651	2	Advance Study Elective	
Select one of the following:	3		
THET 690			
Advance Study Elective			
	13		**9**

Total credit hours: 68

Costume Design and Technology

MASTER OF FINE ARTS IN DESIGN & TECHNOLOGY

The M.F.A. design program is an intense three-year course of study for students seeking professional preparation in scenic, costume, or lighting design.

Studio design courses, together with fully realized production experience, offer expectations found in the real world.

- Three years of graduate courses and production work totaling at least sixty-four designated credit hours
- A production or research thesis
- Oral defense of the thesis project
- A successful evaluation at the end of each semester of study
- An overall grade point average of 3.0

Degree Requirements

Minimum GPA 3.0 required.

Theatre Studies		
THET 610	Research Methods	3

THET 627	Graduate Costume and Decoration 1	3
THET 628	Graduate Costume and Decoration 2	3
THET 697	Research	3
THET 697	Research	3
THET 698	Thesis or Dissertation	3
Theatre Design and Technology		
THET 423	Costume Crafts	3
THET 425	Advanced Costume Construction	3
THET 520	Principles of Stage Lighting	2
THET 621	Graduate Theatre Make-up	2
THET 622	Graduate Scene Design	3
THET 624	Graduate Costume Design 1	3
THET 626	Graduate Costume Design 2	3
THET 626	Graduate Costume Design 2	3
THET 630	Graduate Rendering Techniques	3
THET 725	Portfolio Development	1
Practicum		
Graduate Production Practicum (taken 4 times, 1 credit each)		4
THET 600	Graduate Production Practicum	
Electives		12
Oral Defense		
Portfolio Review		
Total Hours		**60**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
THET 600	1	THET 425	3
THET 610	3	THET 626	3
THET 423	3	THET 621	2
THET 624	3	THET 600	1
	10		**9**

Second Year

Fall	Hours	Spring	Hours
THET 520	2	THET 626	3
THET 622	3	THET 628	3
THET 600	1	THET 600	1
THET 627	3	Elective	3
THET 630	3		
	12		**10**

Third Year

Fall	Hours	Spring	Hours
THET 697	3	THET 698	3
THET 725	1	Elective	3
Elective	3	THET 697	3
Elective	3		
	10		**9**

Total credit hours: 60

Scenic Design and Technology

MASTER OF FINE ARTS IN SCENIC DESIGN AND TECHNOLOGY

The M.F.A. design program is an intense three-year course of study for students seeking professional preparation in scenic, costume, or lighting design.

Studio design courses, together with fully realized production experience, offer expectations found in the real world.

- Three years of graduate courses and production work totaling at least sixty-four designated credit hours
- A production or research thesis
- Oral defense of the thesis project
- A successful evaluation at the end of each semester of study
- An overall grade point average of 3.0

Degree Requirements

Minimum GPA of 3.0 required.

Theatre Studies		
THET 610	Research Methods	3
THET 627	Graduate Costume and Decoration 1	3
THET 628	Graduate Costume and Decoration 2	3
THET 697	Research	3
THET 697	Research	3
THET 698	Thesis or Dissertation	3
Theatre Performance Design		
THET 424	Advanced Technical Production	3
THET 520	Principles of Stage Lighting	2
THET 622	Graduate Scene Design	3
THET 623	Advanced Graduate Scene Design	3
THET 623	Advanced Graduate Scene Design	3
THET 629	Graduate Computer Assisted Design Seminar	3
THET 630	Graduate Rendering Techniques	3
THET 631	Graduate Drafting for the Stage	3
THET 635	Graduate Scene Painting	3
THET 725	Portfolio Development	1
Practicum		
Graduate Production Practicum (taken 4 times, 1 credit each)		4
THET 600	Graduate Production Practicum	
Electives		12
Oral Defense		
Evaluation and Portfolio Review (semesterly)		
Total Hours		**61**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
THET 600	1	THET 520	2
THET 610	3	THET 623	3
THET 622	3	THET 629	3
THET 631	3	THET 600	1
	10		**9**

Second Year

Fall	Hours	Spring	Hours
THET 635	3	THET 623	3
THET 600	1	THET 628	3

THET 627	3	THET 600	1
THET 630	3	THET 424	3
		Elective	3
	10		**13**
Third Year			
Fall	**Hours**	**Spring**	**Hours**
THET 697	3	THET 698	6
THET 725	1	Elective	3
Elective	3		
Elective	3		
	10		**9**

Total credit hours: 61

Lighting Design and Technology

MASTER OF FINE ARTS IN LIGHTING DESIGN AND TECHNOLOGY

The M.F.A. design program is an intense three-year course of study for students seeking professional preparation in scenic, costume, or lighting design.

Studio design courses, together with fully realized production experience, offer expectations found in the real world.

- Three years of graduate courses and production work totaling at least sixty-four designated credit hours
- A production or research thesis
- Oral defense of the thesis project
- A successful evaluation at the end of each semester of study
- An overall grade point average of 3.0

Degree Requirements

Minimum GPA of 3.0 required.

Theatre Studies		
THET 610	Research Methods	3
THET 627	Graduate Costume and Decoration 1	3
THET 628	Graduate Costume and Decoration 2	3
THET 697	Research	3
THET 697	Research	3
THET 698	Thesis or Dissertation	3
Theatre Performance/Design		
THET 427	Lighting Technology	3
THET 520	Principles of Stage Lighting	2
THET 613	Stage Management	3
THET 622	Graduate Scene Design	3
THET 630	Graduate Rendering Techniques	3
THET 625	Graduate Lighting Design	3
THET 625	Graduate Lighting Design	3
THET 629	Graduate Computer Assisted Design Seminar	3
THET 631	Graduate Drafting for the Stage	3
THET 725	Portfolio Development	1
Practicum		
Graduate Production Practicum (taken 4 times, 1 credit each)		4
THET 600	Graduate Production Practicum	
Electives		12
Oral Defense		

Evaluation and Portfolio (semesterly)

Total Hours	61

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
THET 520	2	THET 427	3
THET 600	1	THET 625	3
THET 610	3	THET 629	3
THET 631	3	THET 600	1
	9		10

Second Year

Fall	Hours	Spring	Hours
THET 622	3	THET 613	3
THET 600	1	THET 628	3
THET 627	3	THET 600	1
THET 630	3	THET 625	3
		Elective	3
	10		13

Third Year

Fall	Hours	Spring	Hours
THET 697	3	THET 698	3
THET 725	1	THET 697	3
Elective	3	Elective	3
Elective	3		
	10		9

Total credit hours: 61

Technical Direction

MASTER OF FINE ARTS IN TECHNICAL DIRECTION

The M.F.A. program in an intense three-year course of study for students seeking professional preparation in Technical Direction.

- Three years of graduate courses and production work totaling a minimum of sixty-one designated credit hours
- A production or research thesis
- Oral defense of the thesis project
- A successful evaluation at the end of each semester of study
- An overall grade point average of 3.0

Degree Requirements

Minimum GPA of 3.0 required.

Theatre Studies		
THET 610	Research Methods	3
THET 627	Graduate Costume and Decoration 1	3
THET 628	Graduate Costume and Decoration 2	3
THET 697	Research	6
THET 698	Thesis or Dissertation	3
Theatre Design and Technology		
THET 524	Production Planning	3
THET 535	Graduate Theatre Health and Safety	3
THET 520	Principles of Stage Lighting	2
THET 622	Graduate Scene Design	3

THET 631	Graduate Drafting for the Stage	3
THET 635	Graduate Scene Painting	3
THET 629	Graduate Computer Assisted Design Seminar	3
THET 636	Advanced Stagecraft	3
THET 712	Entertainment Rigging	3
THET 725	Portfolio Development	1
THET 726	Graduate Automation	3
Practicum		
Graduate Production Practicum (Repeated)		4
THET 600	Graduate Production Practicum	
Electives		9
Total Hours		**61**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
THET 631	3	THET 629	3
THET 600	1	THET 524	3
THET 610	3	THET 600	1
THET 520	2	Elective	3
	9		**10**

Second Year

Fall	Hours	Spring	Hours
THET 627	3	THET 628	3
THET 712	3	THET 636	3
THET 600	1	THET 535	3
THET 622	3	THET 600	1
	10		**10**

Third Year

Fall	Hours	Spring	Hours
THET 726	3	THET 697	3
THET 697	3	THET 635	3
THET 698	3	Elective	3
THET 725	1	Elective	3
	10		**12**

Total credit hours: 61

School of Dentistry

Degrees Offered

- D.D.S. in Dentistry
- M.S. in Dental Specialties (Endodontics, Orthodontics, and Prosthodontics)
- M.S. in Dental Hygiene
- B.S. in Dental Hygiene

Historical Background

The School of Dentistry was established by an act of the West Virginia Legislature on March 9, 1951, and the first class was enrolled in September 1957. A class of twenty-three students graduated in 1961, receiving the first dental degrees awarded in West Virginia. In September 1961, the first two students were enrolled in the school's baccalaureate degree program in dental hygiene and graduated in 1965.

Mission

It is the mission of the West Virginia University School of Dentistry to promote a diverse and dynamic learning environment that addresses the present and future oral health needs of the citizens of West Virginia and beyond by providing an oral health center committed to excellence and innovation in education, research, patient care, service, and technology.

The WVU School of Dentistry offers degrees of doctor of dental surgery, master of science in dental specialties and dental hygiene, and bachelor of science in dental hygiene. The Department of Oral and Maxillofacial Surgery offers a four-year residency program, a one-year internship, and a one-year general practice residency program. Programs leading to the master of science and doctor of philosophy degrees are available in the associated basic sciences, public health, and business. Continuing education courses for dentists and auxiliaries are offered throughout the year on a wide variety of dental topics.

Accreditation

All programs are accredited by the Commission on Dental Accreditation of the American Dental Association.

Administration

The dean is responsible for implementing the established policies of the School of Dentistry, the Health Sciences Center, and the University. The dean of the School of Dentistry reports to the chancellor for Health Sciences.

Dental Clinic

Clinical training and experience constitute a major part of the curriculum for dental and dental hygiene students. Facilities for dental and dental hygiene students include over seventy-five treatment cubicles and all necessary related laboratories. Students treat their assigned patients under close supervision of faculty and receive practical experience while rendering service to thousands of patients annually.

Books and Instruments

Dental and dental hygiene students are required to obtain necessary textbooks for the scheduled courses and special instruments for use in the various laboratories and clinics. Lists of approved instruments and books will be provided at the time of registration, and these supplies will be made available through University services. Official authorization is essential in the purchase of all instruments and books used in dental courses. All dental students must maintain a library of required textbooks through graduation. Used instruments and equipment are not acceptable.

Organizations

American Student Dental Association. Pre-doctoral and advanced education dental students are eligible to become members of the American Student Dental Association. Membership provides for student membership in the American Dental Association.

American Association of Dental Research. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Association of Dental Research during the period of enrollment in the School of Dentistry.

American Dental Education Association. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Dental Education Association during the period of enrollment in the School of Dentistry.

American Association of Women Dentists. The objectives and purposes of the West Virginia University School of Dentistry Chapter of the American Association of Women Dentists are to offer opportunities for personal growth through association with women in the dental profession, support the goals of the American Association of Women Dentists, aid in the advancement of women in dentistry, promote professional support and cooperation among its members, and promote the fundamentals of good oral health.

Academy of Dentistry for Persons with Disabilities. The Academy of Dentistry for Persons with Disabilities is an international organization for dental students and dental hygiene students interested in management and treatment of special care patients. Community services are provided by assisting with Special Olympics and presenting disability awareness programs to area grade schools. Guest speakers are sponsored on topics such as: "Managing the Hearing Impaired Patient in the Dental Office," "Use of Restraint in Treating Patients with Disabilities," and "Child Abuse and Neglect in Special Needs Children."

WVU School of Dentistry Alumni Association. In a series of meetings held during May 1961, the first senior class of the School of Dentistry established the WVU School of Dentistry Alumni Association. The association promotes the educational program of the School of Dentistry. Full membership is extended to all graduates of the school, and associate memberships are available to others interested in the aims of the association.

Omicron Kappa Upsilon. On February 6, 1961, the Alpha Beta Chapter of Omicron Kappa Upsilon, national honorary dental society, was chartered at the School of Dentistry. Student membership is limited to twelve percent of each senior class. Candidates are from the academically superior twenty percent.

Dental Fraternity. Chapter of Delta Sigma Delta Intermational Dental Fraternity.

Student American Dental Hygienists' Association. Dental hygiene students are eligible for membership in the official organization representing the dental hygiene profession.

Sigma Phi Alpha. The Alpha Xi chapter of the national dental hygiene honorary society, Sigma Phi Alpha, was established on March 19, 1968. Student membership is limited to ten percent of each graduating class. Candidates are selected on the basis of scholarship, character, and leadership potential as a dental hygienist.

ADMINISTRATION

DEAN

- Tom Borgia - D.D.S., M.H.A.

ASSOCIATE DEANS

- Christina B. DeBiase - Ed.D. (West Virginia University)
  Academic and Postdoctoral Affairs
- Shelia S. Price - D.D.S. (West Virginia University)
  Recruitment and Access

ASSISTANT DEAN

- Robert L. Wanker - D.D.S. (West Virginia University)
  Student and Alumni Affairs

PROFESSORS

- Mohssen Ghalichebaf - D.D.S. (University of Istanbul)
  Restorative Dentistry
- Harold Reed - D.D.S. (West Virginia University)
  Periodontics

ASSOCIATE PROFESSORS

- Eros Chaves - D.D.S. (The University of Campinas Brazil)
  Periodontics
- Chris A. Martin - D.D.S. (West Virginia University)
  Orthodontics
- Timothy J. Tremont - D.D.S. (University of Pittsburgh)
  Orthodontics

ASSISTANT PROFESSOR

- Bryan Dye - D.D.S. (West Virginia University)
  Restorative Dentistry

PROGRAM DIRECTORS

- Anthony T. Borgia - D.D.S. (Georgetown University)
  Endodontics
- Peter Ngan - D.M.D. (Harvard University)
  Orthodontics
- Mark W. Richards - D.D.S. (University of Washington)

Prosthodontics

INTERIM PROGRAM DIRECTOR

- Amy Funk - M.S.D.H.
Dental Hygiene

Degree Designation Learning Goals

The postgraduate programs in dentistry are designed to train well qualified dentists in all aspects of the designated dental specialties offered. Advanced training consists of an integrated education program designed to provide both knowledge in the dentally applied basic sciences and experiences in the clinical science of the designated specialty. A series of structured didactic and clinical courses provides the student with a level of knowledge and skill development necessary to practice a specialty and to prepare for a career in teaching and research. The program qualifies the student for examination and certification by the specialty board.

MASTER OF SCIENCE (MS)

The Master of Science degree program requires the development of an in-depth research problem which must be reported in the form of a thesis.

LEARNING GOALS:

1. Develop competent and skilled clinicians at the specialty level.
2. Prepare and qualify residents to achieve certification by the specialty board.
3. Prepare residents to successfully manage a specialty practice.
4. Prepare and promote a career long interest in continued professional development.
5. Develop the background and experience necessary to select materials and techniques which will appropriately meet the biological, physiological and biomechanical requirements for various oral rehabilitations.
6. Introduce residents to teaching techniques and experiences enabling them to gain an appreciation for their potential role as educators.
7. Prepare residents to critically evaluate the literature and to formulate and conduct a program of research in their specialty and to write and defend a thesis [Master of Science] presenting the results of original research.

DOCTOR OF DENTAL SURGERY (DDS)

Competencies are the skills, knowledge base, attitudes and judgment abilities that a dentist must have at the start of unsupervised independent practice. A graduating student must possess an array of competencies although he or she may not be proficient or expert yet. By defining a curriculum-wide spectrum of competencies, the educational mission of the School is enhanced in two ways: First, the competencies guide our curriculum design and enable increased abilities to analyze curricular content. Second, we can be more focused and efficient in assessing the students' acquisition of the defined competencies. To the extent that it can be affirmed that the student acquires sufficient competency to enter the independent practice of dentistry both safely and ethically, the curriculum has more value.

The ultimate benefits of Competencies for the Graduating Dentist will be a more efficient and rational curriculum that is responsive to the educational mission of the School of Dentistry.

I. Scientific and Critical Thinking

1. Scientific Process: The graduating dentist must acquire, critically evaluate and assimilate scientific information necessary for the evaluation, diagnosis, treatment, management and prevention of oral health problems.

II. Patient Evaluation

2. Examination of the Patient: The graduating dentist must be able to perform an examination that collects the medical, physical, psychological and social information needed to evaluate the systemic and oral condition(s) of patients of all ages (infant through older   adult) or with special needs (including, but not limited to, persons with developmental disabilities, complex medical problems and physical limitations) and manage behavioral factors which affect oral health and use the information to implement strategies that facilitate the delivery of oral health care.

III. Diagnosis

3. Diagnosis: The graduating dentist must be able to determine a differential, provisional or definitive diagnosis by interpreting and correlating findings from the history, clinical and radiographic examination and other diagnostic tests.

IV. Treatment Planning

4. Treatment Planning: The graduating dentist must be able to develop, present, and discuss individual treatment plans for patients of all ages consistent with the patient's condition, interest, goals and capabilities.

V. Patient Treatment and Management

5. <u>Prevention of Disease and Maintenance of Health:</u> The graduating dentist must be able to provide care for patients of all ages that emphasizes prevention of oral diseases and supports the maintenance of existing systemic and oral health.

6. <u>Tobacco Cessation:</u> The graduating dentist must be able to provide evidence-based tobacco cessation strategies.

7. <u>Diversity Awareness</u>: The graduating dentist must be able to discuss cultural factors that impact oral health and provide culturally-sensitive care to persons with varying individual characteristics and backgrounds.

8. <u>Control of Pain and Anxiety:</u> The graduating dentist must be able to employ techniques to manage orofacial discomfort and psychological distress.

9. <u>Caries Management:</u> The graduating dentist must be able to treat and manage caries in the primary, mixed and permanent dentition.

10. <u>Endodontic Therapy:</u> The graduating dentist must be able to treat diseases of pulpal and periradicular origin in the primary, mixed and permanent dentition.

11. <u>Periodontal Therapy:</u> The graduating dentist must be able to treat and manage periodontal disease in the primary, mixed and permanent dentitions.

12. <u>Surgical Therapy:</u> The graduating dentist must be able to recognize, evaluate, treat and/or manage conditions requiring surgical procedures on the hard and soft tissues in patients of all ages.

13. <u>Emergency Situations:</u> The graduating dentist must be able to prevent and manage dental and medical emergency situations encountered in the practice of general dentistry.

14. <u>Occlusal/TMD Therapy:</u> The graduating dentist must be able to manage functional disorders of occlusal or non-occlusal origins.

15. <u>Orthodontic Therapy:</u> The graduating dentist must be able to manage developmental or acquired abnormalities in esthetics or occlusion.

16. <u>Stomatology:</u> The graduating dentist must be able to manage limited or common non-life threatening oral mucosal diseases or disorders.

17. <u>Restorative/Prosthodontic Therapy:</u> The graduating dentist must be able to provide restorations and prostheses that are correct in anatomical form, comfortable and functionally effective, and which satisfy the esthetic requirements of the patient or legal guardian.

18. <u>Implant Therapy:</u> The graduating dentist must be able to assess, diagnose, treatment plan and treat patients requiring single tooth implant-supported restorations and mandibular implant-supported overdentures.

19. <u>Assessment of Patient Treatment:</u> The graduating dentist must be able to determine the prognosis for proposed patient care, evaluate the initial results of the care and determine appropriate periodic maintenance.

VI. Disease Prevention and Health Promotion

20. <u>Community Engagement:</u> The graduating dentist must be able to assume a leadership role in improving the oral health of individuals, families and groups in the community by planning, implementing and evaluating programs to eliminate oral health disparities through a dynamic, evidence-based and interprofessional approach to wellness.

VII. Practice Dynamics

21. <u>Ethics:</u> The graduating dentist must be able to discern and manage the ethicolegal issues of dental practice.

22. <u>Dental Informatics:</u> The graduating dentist must be able to utilize or appreciate office computerization, different forms of digital imaging and electronic communication and information retrieval for patient care, practice management and professional development.

23. <u>Establishing a Practice:</u> The dentist must be able to develop and manage a general practice.

24. <u>Scope of Practice:</u> The graduating dentist must be able to know the limit of one's competence and when to make referrals to colleagues.

Dental Hygiene

Degrees Offered

- Bachelor of Science in Dental Hygiene
- Master of Science in Dental Hygiene

The Profession

Dental hygiene is an exciting profession with many rewarding and challenging career opportunities which include clinical/patient care, administration, education, research, and sales/marketing. Dental hygienists are employed in diverse settings such as private dental practices; clinics; hospitals;

geriatric dental educational programs; national, state, and local government agencies; and private/business industry. As a licensed health professional and oral health educator, the dental hygienist has an important role in the overall health and welfare of the public. The dental hygienist is an integral part of the dental team, providing direct patient care based on the prevention of disease. The duties and responsibilities of dental hygienists vary from state to state but may include oral prophylaxis (removing stains and deposits from teeth); root debridement; exposing radiographs; application of preventive and therapeutic agents; local delivery of antimicrobial agents; nutritional counseling; oral, head, and neck cancer screenings; monitoring nitrous oxide sedation; and administration of local anesthesia. The educational background of a dental hygienist provides the knowledge, attitudes, and skill necessary to be successful in a wide variety of careers. From providing clinical care to research to public administration, dental hygiene opens the door to many successful career options. For more information concerning licensure, please visit: http://dentistry.hsc.wvu.edu/education/programs/dental-hygiene-programs/licensure/ .

Nature of the Program

The establishment of the integrated baccalaureate degree in dental hygiene program at West Virginia University in September 1961 was a milestone in dental hygiene education. The program stands out as one of the top dental hygiene programs nationally as shown by the students' commitment to excellence. With the addition of the degree completion program in 1987 and the master of science program in 1989, the Division of Dental Hygiene provides graduates the opportunity to further their education. The integrated curriculum in dental hygiene combines the advantages of both liberal arts and the professional aspects of education. Graduates from the program are awarded a bachelor of science degree in dental hygiene, with the option to obtain a master of science degree with the completion of a minimum of one additional year.

The dental hygiene curriculum is rigorous and provides excellent preparation for the practice of dental hygiene in numerous practice settings. The curriculum requires successful completion of a total of 136 hours and was constructed in accordance with the standards specified for a school of dental hygiene by the American Dental Association Commission on Dental Accreditation. The program has been fully accredited by this organization since 1965.

The dental hygiene program has a strong commitment to providing care and educational programs to residents of West Virginia, which is demonstrated by the required 125 hours of service learning and clinical care courses. To provide students in dental hygiene program with the necessary clinical experience that is required, the School of Dentistry maintains and operates dental clinics in the Robert C. Byrd Health Sciences Center School of Dentistry. Through the West Virginia Rural Health Education Program (WVRHEP), students are required to provide direct patient care for the citizens of West Virginia at a rural site during the summer session between their junior and senior year. Please visit http://dentistry.hsc.wvu.edu/education/programs/dental-hygiene-programs/ for more information.

The dental hygiene program has an excellent reputation for producing outstanding clinicians and many faculty members as well as graduates are recognized as leaders in dental education and organized dentistry. Please visit http://dentistry.hsc.wvu.edu/education/programs/dental-hygiene-programs/program-of-excellence/ for more information.

Academic and Professional Standards

The Dental Hygiene Academic and Professional Standards, including the Student Rights and Responsibilities, are available at: http://dentistry.hsc.wvu.edu/education/programs/dental-hygiene-programs/academic-and-professional-standards/.

FACULTY
DIRECTOR
- Amy D. Funk - M.S.D.H.

PROFESSORS
- Michael D. Bagby - D.D.S. (Loyola University)
  Biomaterials, Restorative Dentistry
- Richard J. Crout - D.M.D. (University of Pittsburgh)
  Periodontics, Drug Therapy and Pharmacology
- Christina B. DeBiase - Ed.D. (West Virginia University)
  Curriculum and Instruction, Special Patient Care
- Mohssen Ghalichebaf - D.D.S. (University of Istanbul)
  Maxillofacial Prosthetics
- Elizabeth C. Kao - D.M.D. (University of Pennsylvania)
  Restorative Dentistry
- Peter W. Ngan - D.M.D. (Harvard University)
  Orthodontics, Craniofacial Growth and Development, Appliance Therapy
- Shelia S. Price - D.D.S. (West Virginia University)
  Diagnostic Sciences, Health Awareness, Education Leadership
- Thomas F. Razmus - D.D.S. (University of Michigan)

Radiology/Imaging, Oral Medicine, Treatment Planning
- Robert N. Stuchell - D.M.D. (University of Pittsburgh)
Preventive Dentistry, Treatment Therapy
- John G. Thomas - Ph.D. (Syracuse University)
Periodontology
- Bryan D. Weaver - D.D.S. (West Virginia University)
Oral and Maxillofacial Surgery

ASSOCIATE PROFESSORS

- Cathryn L. Frere - M.S.Ed. (University of Southern California)
Dental Hygiene
- C. Russell Jackson - D.D.S. (West Virginia University)
Endodontics, Pulpal Trauma
- Chris A. Martin - D.D.S. (West Virginia University)
Orthodontics
- Harold H. Reed - D.D.S. (West Virginia University)
Prosthodontics
- Mark W. Richards - D.D.S (University of Washington)
Prosthodontics, Implantology
- Louise Tupta-Veselicky - D.D.S. (West Virginia University)
Periodontics, Treatment Therapy

Admission Requirements

The program's admission requirements are as follows:

- Meet WVU requirements for admission to graduate study. Applicants who do not meet the minimum requirements for admission must gain provisional acceptance into the program. All provisions of admission must be met no later than completion of the eighteenth credit hour to be reclassified as a regular student. A student who fails to meet the provisions of admission or who fails to meet the required GPA will be suspended.
- Possess a baccalaureate degree in dental hygiene from an accredited dental hygiene program or a baccalaureate degree in another field of study from an approved institution of higher education while holding a certificate or associate's degree in dental hygiene from a program fully accredited by the American Dental Association Commission on Dental Accreditation.
- Demonstrate evidence of scholastic and clinical achievement to indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade point average of 3.0 or above on a 4.0 scale on all college work attempted is required.
- Complete the Graduate Record Examination (GRE) with an acceptable score within the last five years.
- Submit all information requested in the graduate application to the Office of Academic and Postdoctoral Affairs.
- Consent to and pass a criminal background investigation prior to final acceptance.

Inquiries concerning this program should be directed to the Office of Academic and Postdoctoral Affairs, School of Dentistry. Applications should be filed by July 1 for fall admission and by October 15 for spring enrollment.

Degree Requirements

Minimum overall GPA of 3.0 [*]

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
HPML 601	Foundations of Health and Policy	3
C&I 689	Cultural Diversity in the Classroom	3
DENT 687	Research Methods	1
DTHY 679	Clinical Evaluation	2
DTHY 680	Dental Hygiene Seminar and Practice 1	3
DTHY 690	Teaching Practicum	1
DTHY 697	Research	6
DTHY 698	Thesis or Dissertation	1
Select 13 credits in DTHY, DENT, B&E, EDP, CHPR, HRE		13
Thesis		
Oral defense of thesis		

1 semester of student teaching in the undergraduate clinic

Total Hours	**37**

*   Students must achieve of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in one course will require a faculty review of the student's progress. A second C or below will result in dismissal from the program. A student may repeat only one course one time to bring the GPA up to the 3.0 requirement. Credit hours for courses with a grade lower than C do not count toward degree requirements.

Doctor of Dental Surgery

Doctor of Dental Surgery

The WVU School of Dentistry is dedicated to fostering a humanistic learning environment and preparing students to meet the oral health needs of a diverse society. A dental degree offers a variety of career options including private practice, teaching, research, and public health dentistry. In addition to the Doctor of Dental Surgery (DDS) degree, specialty practice areas may be pursued by advanced training. Oral health professionals are essential members of the health care team. Emerging research indicates oral systemic health linkages and profound oral health disparities. The School of Dentistry engages students in educational research experiences to identify reasons for these disparities and to develop culturally sensitive interventions.

Due to the large number of applications received each year and limited class size, qualified West Virginia residents receive priority consideration, and outstanding nonresident applicants are also considered. Residency status is determined by the WVU Office of Admission in accordance to the Higher Education Policy Commission Rules and Policies, Series 25. The dental admissions committee utilizes a holistic selection process. It does not set absolute minimum Grade Point Averages (GPA) and Dental Admission Test (DAT) scores. Competition for admission has elevated the academic profile of admitted candidates to a rather high plateau. Nonresident applicants generally have earned a GPA of 3.75 or above and DAT scores of 19 or above.   The School of Dentistry recognizes the importance of diversity in fulfilling its mission and strongly encourages individuals from diverse backgrounds to apply.

Admission Requirements

Admission to the WVU School of Dentistry Doctor of Dental Surgery (D.D.S.) program is contingent upon satisfactory completion of all admission requirements, appropriate completion of all application instructions, submission of all transcripts from each college attended, submission of Dental Admission Test (DAT) scores, a personal interview, satisfactory completion of all courses taken before the time of registration in dental school (includes courses taken during the summer session immediately preceding initial enrollment), and all other requirements as set forth by the dental admission committee. Detailed information is available on the dental admissions webpage: http://dentistry.wvu.edu/admissions.

Applications should be submitted in the summer or early fall of the year prior to anticipated enrollment. Candidates for the D.D.S. degree must have abilities and skills of five varieties including observation; communication; motor; intellectual, conceptual, integrative, quantitative; behavioral and social. Technological compensation can be made for some disabilities in certain areas, but a candidate should be able to perform in a reasonably independent manner. (Refer to the School of Dentistry website for additional details about technical standards).

Applicants for admission must also present evidence of having successfully completed at least three years of college course work in U.S. or Canadian colleges or universities. To be considered for admission, applicants must have completed a minimum of ninety semester credit hours at the time of application. The prerequisites for admission include:

English composition and rhetoric, or equivalent	6
Zoology or Biology (with laboratory)	8
Inorganic Chemistry (with laboratory)	8
Organic Chemistry (with laboratory)	8
Physics (with laboratory)	8
Biochemistry	3
Anatomy (Comparative or Human)	3
Total Hours	**44**

Completion of courses in microbiology, embryology/developmental biology, physiology, cellular and molecular biology, genetics and psychology are strongly recommended. In addition, courses in the humanities and the social sciences are suggested for a well-rounded intellectual background for the study and practice of dentistry. The School of Dentistry participates in the Associated American Dental Schools Application Service (AADSAS). All applications must be submitted online via AADSAS at http://www.adea.org. The AADSAS application becomes available in the beginning of June each year. November 1st is the deadline for submission of a completed AADSAS application for the West Virginia University School of Dentistry. The Dental Admissions Committee uses a rolling admissions process and begins admitting highly qualified individuals on December 1, applicants to the DDS program are strongly encouraged to apply early. Each applicant is required to have letters of recommendation submitted to AADSAS. Specific information regarding letter of recommendation requirements is available on the School of Dentistry website. Satisfactory completion of the Dental Admission Test (DAT) is required. The test is given at testing centers throughout the U.S. and in Canada. DAT registration is available on the American Dental Association (ADA) website www.ada.org. DAT scores must be submitted by November 1st of the year preceding the date of anticipated

matriculation. The Dental Admission Committee evaluates all AADSAS applications and invites selected applicants to submit a secondary (WVU) application. Applicants who are West Virginia residents are usually interviewed, although the admissions committee may elect not to interview an unrealistic applicant. Selected non-resident applicants will be invited to interview depending on their qualifications. Individuals who receive provisional acceptance must obtain criminal background clearance and provide documentation of the specified immunizations prior to matriculation.

INTERNATIONAL DENTAL GRADUATE GUIDELINES

International dental graduates who wish to apply to the WVU School of Dentistry Doctor of Dental Surgery (D.D.S.) program as a student in the first-year class must:

1. Submit an application through the Associated American Dental Schools Application Service (AADSAS) by November 1. To obtain additional information, please refer to the general admissions requirements, which include completion of at least 90 semester credit hours at a U.S. or Canadian College or University prior to application submission.
2. Provide documentation of a D.D.S. or D.M.D. degree (or equivalent) from a non-U.S. dental school.
3. Demonstrate proficiency in the English language as demonstrated by performance on the Test of English as a Foreign Language (TOEFL) - paper-based minimum score of 500 or computer-based minimum score of 173 or internet-based test minimum score of 61 - and completion of English 1 and English 2 (or equivalent) at an accredited U.S. college or university earning grade of C or above.
4. Provide three letters of recommendation by college instructors who are familiar with the applicant, excluding family members.
5. Submit Dental Admission Test (DAT) scores showing at least average competence in the various subsections of the test - 17 minimum score, or provide evidence of having successfully passed the National Board Dental Examination, Part I, within five years preceding the application.
6. Have all previous coursework from non-U.S. colleges evaluated by Educational Credential Evaluators (ECE) or the World Educational Services (WES). An official or certified copy of the evaluation must be provided to WVU. The applicant is responsible for payment of fees for this service.
7. Provide official transcripts from all schools attended in the original language of issue.

If granted an interview, applicants must present to the school for personal interview with the admissions committee. Applicants who are invited for an interview must complete the secondary (institution) application for admission and submit the associated fees. The transcripts of international dental graduates who are approved for an interview will be evaluated by the WVU Office of Admission, International unit. West Virginia residents will be given priority consideration.

Promotion

At the end of each grading period (i.e., each academic semester or summer session) all students will have their individual progress reviewed by the Academic and Professional Standards Committee convened for their class. The progress of each student in the curriculum is governed by minimum acceptable performance standards upon which the committee bases its decisions.

The standards consist of three categories: scholastic performance, clinic performance and utilization, and professional development. Scholastic performance requires that each student must earn a specified grade point average to be promoted to the succeeding year. Clinic performance and utilization requires that each student must utilize a specified percentage of available clinic time to demonstrate steady progress toward attainment of clinical competency. Professional development is an important component of the study of dentistry. The criteria for determining this development are based on the student's personal behavior and patient management skills.

These performance standards are explained in detail in the document entitled WVU School of Dentistry Academic and Professional Standards. All first-year students are presented this document prior to entering school and are required to acknowledge by their signature that they have read and accepted the conditions set by the material contained therein. At the completion of each academic term, following the Committee on Academic and Professional Standards meetings, the status of each student is reported to the dean. The committee may recommend that a student be promoted unconditionally, be promoted on probation, be allowed to make up deficiencies, be given the opportunity to repeat the year, or be suspended or dismissed from further studies in the School of Dentistry. Final disposition in each case is the prerogative of the Dean of the School of Dentistry.

Degree Requirements

Candidates for graduation are recommended by the faculty of the School of Dentistry to the Board of Governors for approval and for the conferring of the degree of Doctor of Dental Surgery (D.D.S.), provided they fully meet the following conditions:

- Shall have been in regular attendance in the School of Dentistry for the academic period prescribed for each student.
- Shall have completed the prescribed curriculum for each of the academic sessions.
- Shall have shown good moral character and shall have demonstrated a sense of professional responsibility in the performance of all assignments as a student.
- Shall have met in full all financial obligations to the University.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession.

CURRICULUM REQUIREMENTS

BIOC 705	General Biochemistry	5
DENT 700	Anesthesiology	1
DENT 701	Arts & Sciences of Preventive Dentistry	2
DENT 703	Introduction to Patient Care	3
DENT 704	Operative Dentistry	4
DENT 707	Introduction to Clinical Dentistry	2
DENT 710	Dental Anatomy and Occlusion	4
DENT 711	Periodontics	2
DENT 712	Dental Materials	3
DENT 715	Introduction to Community Dentistry	2
DENT 719	Pedodontics	1
DENT 721	Endodontics	2
DENT 722	Tooth-Colored Restorations	4
DENT 725	Practice Management	1
DENT 726	Removable Partial Dentures	7
DENT 727	Dental/Maxillofacial Radiology	2
DENT 729	Indirect Restorations	3
DENT 730	Community Dentistry	2
DENT 731	Occlusion	2
DENT 733	Advanced Endodontic Theory and Practice	1
DENT 734	Complete Dentures	6
DENT 735	Pediatric Dentistry	1
DENT 737	Treatment Planning	2
DENT 739	Oral Surgery	1
DENT 740	Periodontics	1
DENT 744	Diagnosis and Treatment Planning	1
DENT 745	Principles of Orthodontics	1
DENT 746	Orthodontic Techniques	1
DENT 747	Management of Medical and Dental Emergencies	1
DENT 751	Occlusion	1
DENT 752	Community Dentistry	2
DENT 754	Introduction to Dental Implantology	2
DENT 755	Clinico-Pathologic Correlation Conference	1
DENT 756	Fixed Prosthodontics: Part 1	4
DENT 757	Fixed Prosthodontics: Part 2	4
Taken twice for 2 hours each:		4
DENT 758	Senior Seminar	
DENT 759	Oral Surgery	2
DENT 761	Pediatric Dentistry	1
DENT 763	Periodontics	2
DENT 765	Orthodontics	1
DENT 766	Applied Pediatric Dentistry	2
DENT 767	Community Dentistry	1
DENT 770	Clinical Oral Radiology	4
DENT 771	Practice Management	2
DENT 773	Composite Restorations	1
DENT 774	Principles of Medicine	2
DENT 775	Practice Management	6
DENT 776	Removable Prosthodontics	5
DENT 777	Periodontics	5
DENT 778	Law & Ethics in Dentistry	2

DENT 780	Endodontics	4
DENT 781	Patient Management 1	4
DENT 782	Clinical Patient Management 2	4
DENT 783	Operative Dentistry	6
DENT 784	Oral Surgery	6
DENT 785	Orthodontics	2
DENT 786	Pediatric Dentistry	4
DENT 787	Clinical Oral Diagnosis	1
DENT 789	Fixed Prosthodontics	5
MICB 702	Microbiology	5
NBAN 718	Dental Histology	6
NBAN 724	Human Gross Anatomy	7
PATH 728	General Pathology	5
PATH 738	Oral Pathology 1	3
PATH 753	Oral Pathology 2	2
PCOL 760	Pharmacology and Therapeutics	5
PSIO 743	Fundamentals of Physiology	5
Total Hours		**196**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
DENT 701	2	BIOC 705	5	DENT 703	3
DENT 710	4	DENT 700	1	DENT 745	1
DENT 712	3	DENT 704	4		
NBAN 724	7	DENT 711	2		
PSIO 743	5	DENT 715	2		
		DENT 719	1		
		DENT 731	2		
		NBAN 718	6		
	21		**23**		**4**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
DENT 722	4	DENT 707	2	DENT 725	1
DENT 729	3	DENT 721	2	DENT 726	7
DENT 734	6	DENT 727	2	DENT 740	1
DENT 735	1	DENT 737	2	DENT 746	1
DENT 756	4	DENT 739	1		
MICB 702	5	DENT 744	1		
PCOL 760	5	DENT 757	4		
		DENT 766	2		
		DENT 774	2		
		PATH 728	5		
		PATH 738	3		
	28		**26**		**10**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
DENT 754	2	DENT 730	2	DENT 733	1
DENT 761	1	DENT 747	1	DENT 771	2
DENT 763	2	DENT 751	1	DENT 781	4
DENT 773	1	DENT 752	2		
DENT 778	2	DENT 759	2		

PATH 753	2 DENT 765	1	
	10	**9**	**7**
Fourth Year			
Fall	**Hours Spring**	**Hours**	
DENT 755	1 DENT 758	2	
DENT 758	2 DENT 767	1	
DENT 770	4 DENT 775	6	
DENT 782	2 DENT 776	5	
	DENT 777	5	
	DENT 780	4	
	DENT 782	2	
	DENT 783	6	
	DENT 784	6	
	DENT 785	2	
	DENT 786	4	
	DENT 787	1	
	DENT 789	5	
	9	**49**	

Total credit hours: 196

Endodontics

Degree Offered

- Master of Science

General Information

The School of Dentistry and the Department of Endodontics offer a program of advanced study and clinical training leading to the degree of Master of Science. The program requires a minimum of thirty-four months (three academic years and two summer sessions) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in endodontic clinical practice, teaching, and research.

A stipend plus tuition waiver will be provided for graduate students in Endodontics at the end of the second year for the Summer Session and Fall/Spring Semesters. Special fees are not covered by the tuition waiver. You must pay these each term/semester.

Inquiries concerning this program should be directed to the Office of Dental Admissions and Recruitment. Applications will be processed by the School of Dentistry. Applicants approved for admission to the program will be notified soon after interviews are completed.

This program is accredited by the Commission on Dental Accreditation of the American Dental Association. For details about the faculty, publications, and alumni information, please visit the Department website at http://dentistry.hsc.wvu.edu/education/programs/graduate-programs/endodontics/

Program Goals

- Provide the education and training necessary for graduate dentists to practice in the specialty of Endodontics.
- Provide the basis for a specialist in Endodontics to achieve Board Certification in Endodontics.

Graduate Courses

Advanced Oral Surgery: Advanced study of therapeutics, hospital protocol, and surgical aspects of oral surgery involving lectures, seminars, demonstrations, and clinical applications.

Advanced Topics: Biomedical Sciences Module Series: The Biomedical Sciences Module series has been designed as an online course for students enrolled in the advanced education programs in the WVU School of Dentistry. Three modules currently exist. They include pharmacology, anatomy/histology/embryology, and microbiology/immunology/genetics.

The content of these modules focuses on the clinical application of each of the biomedical sciences to dentistry. Cases will be used to integrate theory and practice. Students will attend a virtual classroom by viewing online lectures, reading prescribed materials, and interacting with faculty and classmates through an online discussion forum.

Advanced Topics: Investigation of advanced topics not covered in regularly scheduled courses.

Applied Biostatistics for Health: Statistical models, distributions, probability, random variables, tests of hypotheses, confident intervals, regression, correlation, transformations, F and Chi-square distributions, analysis of variance and multiple comparisons.

Clinical Endodontics: Graduate of an accredited dental school and admission to the Advanced Education Program in Endodontics or consent. Clinical endodontic practice in the areas of: ordinary endodontic cases, complex endodontic cases, hemisection, root amputation, replantation, transplantation, endodontic implantation, vital pulp therapy, apexification, and bleaching.

Endodontic Theory: Provides seminar discussions in the topics of: basic endodontic techniques, advanced endodontic techniques, endodontic literature review, case presentation, and advanced endodontic theory.

Research: Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Special Studies in Oral Pathology: Advanced study of local or systemic disease processes affecting oral structures through seminars.

Teaching Practicum: Supervised practice in college teaching of dentistry.

FACULTY
DIRECTOR
- Takashi Komabayashi - D.D.S. (University of California San Francisco & Hiroshima University)

CHAIR
- Anthony T. Borgia - D.D.S. (Georgetown University)

Admission Requirements

The program's requirements are as follows:

- Must have passed the National Dental Board Examination—Part 1 and Part 2.
- Must have earned a D.M.D. or D.D.S. degree, or equivalent.
- Must be a graduate of an accredited US or Canadian Dental School.
- Complete and submit a WVU Graduate Application.
- Must be proficient in the English language and report most recent TOEFL score (if foreign applicant).
- Must display evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 3.0 is required.
- Must apply to the program through the Postdoctoral Application Support Service (PASS) http://www.adea.org/ and have all application materials submitted by August 1. For more detailed information, go to the School of Dentistry website (http://dentistry.hsc.wvu.edu/Academic-Programs/Graduate-Programs/Master-of-Science-In-Endodontics).
- Must consent to and pass a criminal background investigation prior to final acceptance.
- Must submit documentation of all required immunizations. A complete list is available on the School of Dentistry website.
- Must meet certain Federal and University standards regarding the Responsible Conduct of Research (RCR). To comply with these standards, all individuals admitted to the Doctor of Dental Surgery (DDS) and dental graduate programs must successfully complete the Biomedical Responsible Conduct of Research (BRCR) online course offered by the Collaborative Institutional Training Initiative (CITI). **The BRCR course must be completed no later than 30 days after beginning your first semester in the education program.** Failure to satisfy this requirement within the specified period of time will impact your enrollment.
- Must become familiar with the West Virginia University School of Dentistry's policy and procedure for Bloodborne Pathogens and Infectious Diseases.
- Must be eligible for a West Virginia dental license or permit.

Degree Requirements
- Fulfill University requirements for graduate study.
- Complete 34 months (three academic years and two summer sessions) of consecutive full-time advanced study and clinical training at the School of Dentistry.
- Complete an approved master's thesis based on original research completed during the course of study in an area related to endodontics.
- Must satisfactorily pass a final oral examination.
- Must successfully complete all didactic and clinical work in the required curriculum.
- Must demonstrate satisfactory clinical competency in endodontics.
- Complete a minimum of 87 credit hours, including 49 hours of endodontic courses, a minimum of 14 hours of selected basic sciences subjects, 12 hours teaching practicum, and a thesis (12 hours).

- Achieve a 3.0 GPA or an overall competence in the student's field. A minimum grade of B must be earned in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

CURRICULUM REQUIREMENTS

Minimum GPA of 3.0 is required.

Minimum grade of B is required in all courses. [*]

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
DENT 600	Advanced Oral Surgery	3
DENT 601	Advanced Oral Microbiology	3
DENT 687	Research Methods	1
Teaching Practicum		12
DENT 690	Teaching Practicum (Repeated)	
DENT	Biomedical Sciences - PCOL	1
DENT	Biomedical Sciences-ANAT	1
Clinical Endodontics		35
ENDO 688	Clinical Endodontics (Repeated)	
Endodontic Theory		12
ENDO 689	Endodontic Theory Yr-Sm (Repeated)	
ENDO 697	Research	12
ORTH 625	Orthodontic Seminar	1
PATH 601	Special Studies in Oral Pathology	2
Master's Thesis		
Oral Examination		
Demonstrate clinical competency in endodontics		
Total Hours		**87**

SUGGESTED PLAN OF STUDY

First Semester	Hours
DENT 600	1
ORTH 625	1
ENDO 688	2
ENDO 689	3
	7
Second Semester	**Hours**
DENT 600	2
BIOS 601	3
PATH 601	2
BIOS 602	1
ENDO 688	3
ENDO 689	3
Biomedical Sciences-PCOL	1
	15
Third Semester	**Hours**
DENT 687	1
ENDO 688	3
ENDO 689	3
ENDO 690	2
DENT 601	3
	12

Fourth Semester	Hours
ENDO 688	4
ENDO 690	2
Biomedical Sciences-ANAT	1
ENDO 697	2
	9
Fifth Semester	**Hours**
ENDO 688	4
ENDO 689	2
ENDO 690	2
ENDO 697	1
	9
Sixth Semester	**Hours**
ENDO 688	4
ENDO 689	2
ENDO 690	2
ENDO 697	3
	11
Seventh Semester	**Hours**
ENDO 688	4
ENDO 689	1
ENDO 690	1
ENDO 697	3
	9
Eighth Semester	**Hours**
ENDO 688	4
ENDO 689	1
ENDO 690	1
ENDO 697	2
	8
Ninth Semester	**Hours**
ENDO 688	5
ENDO 690	1
ENDO 697	1
	7

Total credit hours: 87

Orthodontics

Degree Offered

- Master of Science

General Information

The School of Dentistry and the Department of Orthodontics offer a program of advanced study and clinical training leading to the degree of Master of Science. The program requires a minimum of thirty-four months (three academic years and two summers) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in orthodontic clinical practice, teaching, and research.

A stipend plus tuition waiver will be provided for graduate students in Orthodontics at the end of the second year for summer session and fall/spring semesters. Special fees are not covered by the tuition waiver. You must pay special fees each term/semester.

Inquiries concerning this program should be directed to the Office of Dental Admission and Recruitment. Applications will be processed by the School of Dentistry. Applicants approved for admission to the program will be notified soon after December 1.

This program is accredited by the Commission on Dental Accreditation of the American Dental Association. For details about the faculty, publications, and alumni information, please visit the Department website at http://dentistry.hsc.wvu.edu/Academic-Programs/Graduate-Programs/Master-of-Science-in-Orthodontics.

Program Goals

The postgraduate program is designed to develop skilled practitioners who can easily transition into and manage a busy orthodontic practice. The goal of this program is to teach a variety of treatment mechanics that are scientifically valid, and let the residents make choices based on treatment needed on a case-by-case basis. Clinical experiences are diverse, including cleft lip and palate and orthognathic surgery cases. An original master's thesis project is required and is designed to obtain results suitable for publication in a reputable dental journal. The curriculum focuses on didactic and clinical materials to prepare residents in taking the American Board of Orthodontics (ABO) Examinations. Classes pertaining to the written board are given throughout the three-year program. It is a requirement for every third year resident to take and pass the written component of the ABO, and all residents are encouraged to complete the board certification process.

Program Curriculum

The thirty-four-month Master in Science program in Orthodontics begins July 1. First-year residents begin an intensive Orthodontic Technique course on July 1 and begin seeing new patients in mid-July. In August, first year residents begin a full clinic schedule which includes morning and afternoon clinic sessions.

Didactic course work at the WVU Department of Orthodontics consists of faculty led, resident taught lectures and seminar sessions for an average of two hours each day. Seminar topics range from patient diagnosis and treatment planning to practice management and financial planning. In addition, the department maintains a relationship with many commercial orthodontic companies that regularly visit the clinic to present new products and techniques.

Clinical work simulates the private practice environment. There are two dental assistants and a patient service coordinator available in the clinic to aid residents during clinic sessions. All orthodontic records are computerized. Diagnosis and treatment planning can be completed entirely in the digital realm. Billing, scheduling, and record storage is accomplished using a commercial dental office management system. The orthodontic clinic has been chosen as the first department in the WVU School of Dentistry to be completely paperless. This process is now underway. The objective is to maximize clinical efficiency so residents are able to increase their number of patient experiences.

FACULTY

CHAIR

- Peter Ngan - D.M.D. (Harvard University)

ASSOCIATE PROFESSORS

- Chris A. Martin - D.D.S. (West Virginia University)
- Timothy J. Tremont - D.D.S. (University of Pittsburgh)

Admission Requirements

The program's admission requirements are as follows:

- Must have passed the National Dental Board Examination — Part I.
- Must have earned a D.M.D./D.D.S. degree, or its equivalent.
- Must report most recent GRE scores.
- Complete and submit WVU Graduate Application.
- Must be proficient in the English language and provide a TOEFL score (if you are a foreign applicant).
- Must display evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade point average of 3.0 is required.
- Must apply to the program through the Postdoctoral Application Support Service (PASS) http://www.adea.org/ and have all application materials submitted by September 15. Each applicant must also have a MATCH number from National Matching Services (http:// www.natmatch.com). For more detailed information, go to the School of Dentistry website (http://dentistry.hsc.wvu.edu/Academic-Programs/Graduate-Programs/Graduate-Programs/Master-of-Science-In-Orthodontics).
- Must consent to and pass a criminal background investigation prior to final acceptance.
- Must submit documentation of required immunizations. A complete list is available on the School of Dentistry website.
- Must meet certain Federal and University standards regarding the Responsible Conduct of Research (RCR). To comply with these standards, all individuals admitted to the Doctor of Dental Surgery (DDS) and dental graduate programs must successfully compel the Biomedical Responsible Conduct of Research (BRCR) online course offered by the Collaborative Institutional Training Initiative (CITI). **The BRCR course must be**

completed no later than 30 days after beginning your first semester in the education program. Failure to satisfy this requirement within the specified period to time will impact your enrollment.

- Must become familiar with the West Virginia University School of Dentistry's policy and procedure for Bloodborne Pathogens and Infectious Diseases.
- Must be eligible for a West Virginia dental license or permit.

Degree Requirements

- Fulfill University requirements for graduate study.
- Complete 34 months (three academic years and two summer sessions) of consecutive full-time advanced study and clinical training at the School of Dentistry.
- Complete an approved master's thesis based on original research completed during the course of study in an area related to Orthodontics.
- Must pass the Mock ABO clinical examination which includes a written and an oral examination.
- Must pass the written component of the ABO examination.
- Must successfully complete all didactic and clinical work in the required curriculum.
- Must demonstrate satisfactory clinical competency in this field.
- Complete a minimum of 87 credit hours, including 59 hours of orthodontic courses and a minimum of 10 hours of selected basic science subjects, 6 hours of teaching practicum, and a research/thesis (12 hours).
- Achieve a 3.0 GPA or an overall competence in the student's field. A minimum grade of B must be earned in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

CURRICULUM REQUIREMENTS

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
DENT 601	Advanced Oral Microbiology	1
DENT 687	Research Methods	1
ORTH 616	Biomechanics	2
Orthodontic Technique		4
ORTH 617	Orthodontic Technique (Repeated)	
ORTH 618	Orthodontic Materials	1
Orthodontic Diagnosis		11
ORTH 619	Orthodontic Diagnosis (Re[eated)	
ORTH 620	Cephalometrics	1
Orthodontic Mechanics		7
ORTH 621	Orthodontic Mechanics (Repeated)	
ORTH 623	Growth and Development	2
ORTH 625	Orthodontic Seminar	1
Orthodontic Clinic		18
ORTH 626	Orthodontic Clinic (Repeated)	
Surigical Orthodontics		2
ORTH 627	Surgical Orthodontics (Repeated)	
Early Orthodontic Treatment		2
ORTH 628	Early Orthodontic Treatment (Repeated)	
Orthodontic Patient Management		2
ORTH 629	Orthodontic Patient Management (Repeated)	
ORTH 630	Craniofacial Anomalies	1
Journal Club		2
ORTH 631	Journal Club (Repeated)	
ORTH 632	Dentofacial Orthopedics	1
Ortho-Perio Seminar		2
ORTH 633	Orthodontics-Periodontics Seminar (Repeated)	
Teaching Practicum		6
ORTH 690	Teaching Practicum (Repeated)	

DENT	Biomedical Sciences - PCOL	1
DENT	Biomedical Sciences-ANAT	1
ORTH 697	Research	12
PATH 601	Special Studies in Oral Pathology	2
Total Hours		**87**

SUGGESTED PLAN OF STUDY

First Semester	**Hours**
ORTH 617	2
ORTH 618	1
ORTH 619	3
ORTH 621	1
ORTH 625	1
	8
Second Semester	**Hours**
BIOS 601	3
PATH 601	2
BIOS 602	1
ORTH 616	2
ORTH 617	2
ORTH 619	1
ORTH 621	1
ORTH 626	1
ORTH 632	1
	14
Third Semester	**Hours**
ORTH 619	2
ORTH 620	1
ORTH 621	1
ORTH 623	2
ORTH 626	3
DENT 687	1
DENT 601	1
	11
Fourth Semester	**Hours**
ORTH 619	1
ORTH 626	3
ORTH 631	1
Biomedical Sciences - ANAT	1
ORTH 697	1
	7
Fifth Semester	**Hours**
ORTH 619	1
ORTH 621	1
ORTH 626	1
ORTH 627	1
ORTH 628	1
ORTH 633	1
Biomedical Sciences - PCOL	1
ORTH 697	3
	10

Sixth Semester	Hours
ORTH 619	1
ORTH 621	1
ORTH 626	5
ORTH 697	2
	9
Seventh Semester	**Hours**
ORTH 626	2
ORTH 631	1
ORTH 690	2
ORTH 697	2
	7
Eighth Semester	**Hours**
ORTH 619	1
ORTH 621	1
ORTH 626	2
ORTH 628	1
ORTH 629	1
ORTH 633	1
ORTH 690	2
ORTH 697	2
	11
Ninth Semester	**Hours**
ORTH 619	1
ORTH 621	1
ORTH 626	1
ORTH 627	1
ORTH 629	1
ORTH 630	1
ORTH 690	2
ORTH 697	2
	10

Total credit hours: 87

Prosthodontics

Degree Offered

- Master of Science

General Information

The School of Dentistry and the Department of Restorative Dentistry offer a program of advanced study and clinical training leading to the degree of Master of Science. The program requires a minimum of thirty-three months (three academic years and two summers) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in prosthodontic clinical practice, teaching, and research.

A stipend plus tuition waiver will be provided for graduate students in Prosthodontics at the end of the second year for summer session and fall/spring semesters. Special fees are not covered by the tuition waiver. You must pay special fees each term/semester.

Inquiries concerning this program should be directed to the Office of Dental Admissions and Recruitment. Applications will be processed by the School of Dentistry. Applicants approved for admission to the program will be notified soon after interviews have been completed.

This program is accredited by the Commission on Dental Accreditation of the American Dental Association. For details about the faculty, publications and alumni information, please visit the Department website at http://dentistry.hsc.wvu.edu/Academic-Programs/Graduate-Programs/Master-of-Science-in-Prosthodontics.

Program Goals

The postgraduate program is designed to train well qualified dentists in all aspects of prosthodontics. Advanced training in prosthodontics consists of an integrated education program designed to provide both knowledge in the dentally applied basic sciences and experiences in the clinical science of prosthodontics. These include but are not limited to, complete denture prosthodontics, removable partial denture prosthodontics, fixed partial denture prosthodontics, maxillofacial prosthetics, and surgical and prosthodontics dental implantology. A series of structured didactic and clinical courses provides the student with a level of knowledge and skill development necessary to practice prosthodontics as a specialty and to prepare for a career in teaching and research. The program qualifies the student for examination and certification by the American Board of Prosthodontics.

The Master of Science degree program requires the development of an in-depth research problem which must be reported in the form of a thesis.

Program Curriculum

FIRST-YEAR PROGRAM

In the first year of the program, the resident is introduced to the specialty of prosthodontics, its scope, and its history. The resident receives instruction in the laboratory and clinical aspects of complete dentures, removable partial dentures, fixed partial dentures, maxillofacial prosthetics, implant prosthodontics, implant surgery. and treatment of temporomandibular dysfunction. The resident is required to know and use the materials and techniques for fabricating oral prostheses and to become proficient at performing all phases of laboratory work related to clinical patients.

The resident will participate in seminars on specific topics in prosthodontics and on the relationship of prosthodontics to the other specialties. The resident will study biostatistics, research methodology, and select an in-depth research problem for thesis development and publication.

SECOND-YEAR PROGRAM

The second year of the program is a continuation of the first year of training, with increased emphasis on the clinical treatment of patients and the advanced concepts of prosthodontics. The resident will spend more time conducting a research study and in the development of a thesis. A topic in the field of prosthodontics will be selected and developed into a high quality table clinic for presentation at the American College of Prosthodontists annual session.

THIRD-YEAR PROGRAM

The third year of the program continues with more advanced clinical treatment and concepts of prosthodontics, including the completion of three patients to meet the current requirements for presentation to the American Board of Prosthodontics. The resident will spend a significant amount of time treating older adult patients.

Throughout the training, the resident is encouraged to be inquisitive regarding all phases of treatment and to use initiative to be resourceful. The senior resident should become a severe critic of his or her own accomplishments and be able to support clinical decisions with references from the literature. Completion of a research problem and thesis are required and the resident must successfully defend the thesis to Committee. The Senior resident will be expected to present lectures and patient presentations in preparation for Board certification and future teaching responsibilities. Satisfactory completeion of this year of training qualifies the resident for examination and certification by the American Board of Prosthodontics.

FACULTY
DIRECTOR
- Mark W. Richards - D.D.S. (University of Washington)
PROFESSORS
- Mohssen Ghalichebaf - D.D.S. (University of Istanbul)
- Harold Reed - D.D.S. (West Virginia University)

ASSISTANT PROFESSOR
- Bryan Dye - D.D.S. (West Virginia University)

Admission Requirements

The program's admission requirements are as follows:

- Must have passed National Dental Board Examination – Part I.
- Must have earned a D.M.D./D.D.S. degree, or its equivalent.
- Must be a graduate of a U.S. or Canadian dental school.
- Must be proficient in the English language or provide a recent TOEFL score (if foreign applicant).
- Must display evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade point average of 3.0 is required.

- Must apply to the program through the Postdoctoral Application Support Service (PASS) http://www.adea.org/ and have all application materials in PASS by August 1. For more detailed information go to the School of Dentistry website (http://dentistry.hsc.wvu.edu/Academic-Programs/Graduate-Programs/Master-of-Science-in-Prosthodontics).
- Must consent to and pass a criminal background investigation prior to final acceptance.
- Must submit documention of required immunizations. A complete list is available on the School of Dentistry website.
- Must meet certain Federal and University standards regarding the Responsible Conduct of Research (RCR). To comply with these standards, all individuals admitted to the Doctor of Dental Surgery (DDS) and dental graduate programs must successfully compel the Biomedical Responsible Conduct of Research (BRCR) online course offered by the Collaborative Institutional Training Initiative (CITI). **The BRCR course must be completed no later than 30 days after beginning your first semester in the education program.** Failure to satisfy this requirement within the specified period of time will impact your enrollment.
- Must become familiar with the West Virginia School of Dentistry's policy and procedure for Bloodborne Pathogens and Infectious Diseases.
- Must be eligible for a West Virginia dental license or permit.

Degree Requirements

- Fulfill University requirements for graduate study.
- Complete 34 months (three academic years and two summer sessions) of consecutive full-time advanced study and clinical training at the School of Dentistry.
- Complete an approved master's thesis based on original research completed during the course of study in an area related to Prosthodontics.
- Must pass a final oral examination.
- Must successfully complete all didactic and clinical work in the required curriculum.
- Demonstrate satisfactory clinical competency in this field.
- Complete a minimum of 87 credit hours. This includes 60 credit hours of prosthodontic courses, a minimum of 14 credit hours of selected basic science subjects, 6 hours of teaching practicum, and a research/thesis (7 hours).
- Achieve a 3.0 GPA or an overall competence in the student's field. A minimum grade of B must be earned in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

CURRICULUM REQUIREMENTS

Minimum GPA of 3.0 required.

Minimum grade of B required in each course.		
BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
DENT 600	Advanced Oral Surgery	2
DENT 601	Advanced Oral Microbiology	1
DENT 687	Research Methods	1
Teaching Practicum		6
DENT 690	Teaching Practicum (Repeated)	
Research		7
DENT 697	Research	
DENT course	Biomedical Sciences-ANAT	1
DENT	Biomedical Sciences-PCOL	1
ORTH 618	Orthodontic Materials	1
ORTH 625	Orthodontic Seminar	1
PATH 601	Special Studies in Oral Pathology	2
Advanced Clinical Prosthodontics		32
PROS 688	Advanced Clinical Prosthodontics (Repeated)	
Advanced Prosthodontics Theory		28
PROS 689	Advanced Prosthodontics Theory (Repeated)	
Master's Thesis		
Oral Examination		
Demonstrate satisfactory clinical competency		
Total Hours		**87**

SUGGESTED PLAN OF STUDY

First Semester	Hours
DENT 600	1
ORTH 618	1
ORTH 625	1
PROS 688	1
PROS 689	4
	8

Second Semester	Hours
DENT 600	1
BIOS 601	3
BIOS 602	1
PROS 688	2
PROS 689	3
Biomedical Sciences - PCOL	1
	11

Third Semester	Hours
DENT 687	1
PROS 688	4
PROS 689	5
DENT 601	1
	11

Fourth Semester	Hours
undefined	
PROS 688	3
PROS 689	3
Biomedical Sciences-ANAT	1
DENT 697	1
	8

Fifth Semester	Hours
PATH 601	2
PROS 688	4
PROS 689	2
DENT 697	1
	9

Sixth Semester	Hours
PROS 688	6
PROS 689	4
DENT 697	1
	11

Seventh Semester	Hours
PROS 688	3
PROS 689	3
DENT 690	2
DENT 697	1
	9

Eighth Semester	Hours
PROS 688	4
PROS 689	2
DENT 690	2

DENT 697	1
	9
Ninth Semester	**Hours**
PROS 688	5
PROS 689	2
DENT 690	2
DENT 697	2
	11

Total credit hours: 87

College of Education and Human Services

Degrees Offered

- Doctor of audiology
- Doctor of philosophy in counseling psychology
  - Doctor of philosophy in education
- Doctor of education in curriculum and instruction
  - Doctor of education in educational leadership studies
  - Doctor of education in educational psychology
  - Doctor of education in higher education administration
  - Doctor of education in instructional design and technology
  - Doctor of education in special education
- Master of arts in counseling
- Master of arts in education leadership/public education administration
- Master of arts in educational psychology (areas of emphasis: CDFS, program evaluation and research and educational psychology)
- Master of arts in education
- Master of arts in higher education administration
- Master of arts in instructional design and technology
- Master of arts in literacy education
- Master of arts in special education
- Master of science in rehabilitation counseling
- Master of science in speech pathology

The College of Education and Human Services, located in Allen Hall on the Evansdale campus, offers graduate-level programs of study in counseling, counseling psychology, curriculum and instruction, educational leadership, educational psychology, elementary education, literacy education, instructional design and technology, rehabilitation counseling, secondary education, special education, communication sciences and disorders and higher education administration. Thesis programs are devoted to the study and development of human talent and resources in the school, family, and community. Instruction, research, and extended service are carried out in close cooperation with related departments and units of the university. Students may also complete teaching certification-only programs in education and special education areas.

Some graduate programs require the successful completion of clinical experiences in approved sites. Clinical placements are arranged by faculty and the professional judgments of faculty are used to determine continuation of students in these placements.

Non-Degree Status

Students not admitted to or terminated from a degree program may apply for classification as a non-degree graduate student to the Assistant Dean for Student Services in the Office of Student Advising and Records of the College of Education and Human Services, P.O. Box 6122, Morgantown, WV 26506-6122. Non-degree classification allows the student to take coursework for certificate renewal, certification, or personal interest. A non-degree graduate student may accumulate unlimited graduate credit hours, but only 12 hours of graduate credit may be applied toward a degree should the student be admitted to a degree program. if the student is later admitted to a degree program, the faculty of that program will decide whether or not credit earned as a non-degree student may be applied to the degree. Under no circumstances may a non-degree student apply more than twelve hours of previously earned credit toward a degree. Course work for a graduate degree must have been taken within eight years of the student's graduation.

Students may obtain additional information about a particular graduate program by writing to the coordinator of that program or by contacting the Center for Advising and Records, 304-293, 2169.

ADMINISTRATION

DEAN
- Gypsy Denzine - Ph.D.

ASSOCIATE DEAN FOR RESEARCH AND GRADUATE EDUCATION
- M.Cecil Smith - Ph.D.

Degree Designation Learning Goals

MASTER OF ARTS (MA) AND MASTER OF SCIENCE (MS)

The College of Education and Human Services offers graduate programs that lead to Masters and Doctoral degrees in specific fields of study and areas of professional practice. Learning goals for students in Master of Arts and Master of Science degree programs include:

- Developing depth and breadth of knowledge across the specialized body of theoretical information and applied topics
- Developing knowledge of the issues and discourses that are central to the discipline
- Learning to effectively communicate one's knowledge about the discipline
- Learning to engage in analytical thinking to address problems in the discipline
- Engaging in collaborative activities in communities of practice with the discipline

DOCTOR OF EDUCATION (EDD) AND DOCTOR OF PHILOSOPHY (PHD)

Doctoral programs build on and extend knowledge and skills related to Masters level programs. Students in both the Doctor of Education (EdD) and Doctor of Philosophy (PhD) programs engage in structured research experiences to develop a deeper understanding of educational research as they build research skills by designing and conducting theory-driven inquiry-based studies.

DOCTOR OF AUDIOLOGY (AUD)

The Doctor of Audiology (Au.D) program has been designed to provide a firm understanding of the normal processes of hearing and communication with the academic and clinical preparation to diagnose and treat the full range of hearing disorders in all age groups. Our goal is to prepare audiologists who are competent to work in a wide variety of clinical settings, including hospitals, clinics, special treatment centers, schools, industry, and private practice. The program's intent is to provide the knowledge and skills necessary to practice audiology autonomously in an effective, ethical manner. To this end, the following goals have been established by the Department of Speech Pathology and Audiology at West Virginia University:

1. Graduates will demonstrate mastery of knowledge and skills necessary to practice audiology in diverse settings encompassing all of the many facets of our profession.
2. Graduates will demonstrate an ability to work autonomously, using sound judgment in a competent and ethical manner.
3. Graduates will contribute to the profession and their community via active membership in professional organizations, scholarly activity, and taking the initiative in public education concerning hearing and balance disorders.
4. Graduates will be employed as audiologists serving the hearing impaired populaces, industry, and the medical community with special emphasis in underserved areas of our state.

Admission

Admission, curriculum, and specific requirements of the various degree programs of the College of Education and Human Services are provided in each program section in this catalog. It is the responsibility of the student to take steps to ensure that he or she is properly informed of the degree requirements and/or the certification standards being sought. Graduates of our state-approved preparation programs are eligible for recommendations for certification/licensure issued by appropriate state agencies. Since certification requirements are changed periodically by the state, the fulfillment of certification requirements as presented in this catalog cannot guarantee compliance with the most recent requirements. The West Virginia State Department of Education requires that a degree be from an accredited institution of higher education for licensure and salary purposes. Students are therefore encouraged to seek the counsel of members of the faculty, their advisers, and the college certification officer on matters pertaining to degree and certification requirements.

All applicants for admission to the doctoral program in the College of Education and Human Services must submit their scores on the Graduate Record Examination and/or the Miller Analogies Test, three letters of recommendation, a current vita, and a sample of long-range and short-range goals. Applicants to the college must comply with the general university graduate study regulations. Personal interviews are required by several programs. Additional information may be required by the faculty of a specific area of emphasis prior to program admission.

In this section:

Master's Degree Programs

Master's degree programs are offered in counseling, rehabilitation counseling, speech pathology, educational leadership studies, educational psychology, elementary education, instructional design and technology, reading, secondary education, and special education.

Three options are generally available in the college's master's programs; the student should refer to the specific program to determine the option that applies.

1. At least thirty semester hours of coursework, including six semester hours of research

2. At least thirty semester hours of coursework, including three semester hours of research, selected in conference with the candidate's committee, directed by the adviser, with final approval of the committee

3. At least thirty-six semester hours of approved coursework

- The student must comply with specific graduate requirements of the university, the College of Education and Human Services, and the program.
- All students will be assigned an adviser. For options A and B, two additional faculty members will be assigned to serve as the remainder of the three-member master's committee. For option C, only the adviser is required.
- No student may be awarded a master's degree unless the student has a minimum grade point average of 3.0 on all work taken for the graduate degree. (A grade of less than C does not carry credit toward a graduate degree but counts in determining the grade point average.)
- No student will be permitted to repeat a required graduate course more than once.

Some programs may require the comprehensive examination in options A, B, and C above. The candidate's committee (options A and B) or adviser (option C) will determine whether the examination will be oral or written or both. Within the first two weeks of the semester in which the student intends to take the final master's degree examination, he or she must submit to the appropriate department chair an application to take the examination. A student must have completed a minimum of twenty-seven semester hours of approved coursework before taking the comprehensive examination. In addition, a student must have achieved a 3.0 grade point average on all work taken for graduate credit before applying to take the comprehensive examination.

Time Limit

All requirements must be completed within eight years immediately preceding the awarding of the degree.

Doctoral Programs

If you would like additional information about the graduate programs in the College of Education and Human Services, contact the chairperson of the department most relevant to your program interests. Students in the doctor of education (Ed.D.) program may elect an area of emphasis in curriculum and instruction, educational leadership studies, instructional design and technology, or special education. Specific information about doctoral studies in these emphasis areas is listed in the program description area of the catalog. Students interested in the doctor of audiology (Au.D.) and the doctor of philosophy (Ph.D.) in counseling psychology and in education will find information about those programs in separate areas of this catalog. Students in the interdisciplinary (Ph.D.) program select a focus area from one of the following major areas of study: educational leadership and policy studies, learning, instructional design and technology; or curriculum, literacy and cultural studies, and human development and family studies.

Committee Formation

Typically after admission to a specific program, the student, in consultation with the adviser, selects a chairperson and four committee members to serve as his or her doctoral committee. This committee must be approved by the department chair and the dean of the college. The doctoral committee must meet the following minimum standards:

- The doctoral committee must be composed of a minimum of five members, the majority of whom must be regular members of the graduate faculty.
- At least three members of the doctoral committee must be members of the graduate faculty of the College of Education and Human Services.
- The student's major adviser must be from the student's major program and must be a regular member of the graduate faculty. No more than two other members of the doctoral committee may be from the student's major program area of study.
- At least two members of the doctoral committee must be from the student's major program area of study.
- At least one member of the doctoral committee must be from the student's minor program area of study.
- The doctoral committee must include at least one member from outside the student's program area and that individual must have knowledge and insights relevant to the student's program of study.
- No more than one member of the doctoral committee may be a nonmember or associate of the graduate faculty.

Program Plan

The final determination of the program of coursework and research is the responsibility of the student's doctoral committee. Doctor degrees are not awarded on the basis of the completion of any set number of credits but is awarded on the basis of demonstrated academic achievement and scholarly competence. Seventy-two semester hours of relevant graduate work, excluding dissertation credit, but including credits of relevant graduate work completed at the master's degree level, constitute the minimum coursework acceptable.

Candidacy

The student and the committee at the time of program planning will identify competencies to be developed and how they will be assessed. These will be stated in the student's individual program. The doctoral student and his or her doctoral committee will determine when the student is ready for assessment of competencies. The examination will be prepared and assessed by the student's doctoral committee and will address all work in the doctoral program plan of the student. The student must be enrolled in the semester in which candidacy examination occurs. The chairperson will notify the student and the student records office. Personnel in the student records office will notify all appropriate university and college offices of the outcome. Upon successful completion of the examination, the student will formally propose the dissertation prospectus to the committee.

Prospectus

The candidate must submit and justify a prospectus for a doctoral dissertation. The doctoral committee must review and approve, approve with change, or reject the outline or prospectus. The student must consult with all members of the committee and with other appropriate members of the university faculty during the dissertation phase of the program.

Dissertation Defense

Upon fulfillment of the program requirements set by the doctoral committee, the student must successfully defend the dissertation. The defense will be conducted by the students doctoral committee and the publicized meeting will be open to all members of the university faculty. If the student receives more than one unfavorable vote from the committee, the candidate will not be recommended for the doctoral degree.

Time Limit

Because the qualifying examination attests to the academic competence of the student who is about to become an independent researcher or practitioner, the length of time between the examination and degree must be limited. Consequently, doctoral candidates are allowed no more than five years after the qualifying examination in which to complete remaining degree requirements. If the student should fail to complete an approved dissertation within five years, he or she must repeat the admission to candidacy examination and any other requirements specified by the student's doctoral committee.

Residency

A student must satisfactorily complete a minimum of nine semester hours of approved graduate credit in each of two consecutive terms in residence.

Department of Counseling, Rehabilitation Counseling, and Counseling Psychology

Degrees Offered

- Master of arts in counseling
- Master of science in clinical rehabilitation counseling and mental health counseling
- Doctor of philosophy in counseling psychology

Department of Counseling, Rehabilitation Counseling, and Counseling Psychology offers three graduate programs. These are the master of arts program in counseling, with specializations in clinical mental health counseling and school counseling; the master of science program in clinical rehabilitation and mental health counseling, an e-campus program; and the Ph.D. program in counseling psychology.

The key unifying component in all of our programs is "counseling**."** The American Counseling Association (ACA) defines professional counseling as "the application of mental health, psychological, or human development principles, through cognitive, affective, behavioral or systematic intervention strategies, that address wellness, personal growth, or career development, as well as pathology."

These interrelated fields all hold great promise in the job market and for your life. Professionals who make their careers in these fields are dedicated to making a difference in the lives of others. We support their learning in many ways—through classroom activities, research, and service learning.

FACULTY

CHAIR

- Jeffrey A. Daniels - Ph.D. (University of Nebraska)
  Chair, Associate Professor, Counseling Psychology, Global Hostage-taking, Averting Lethal School Violence, Spirit and Religious Issues in Counseling

ASSOCIATE PROFESSORS

- Margaret K. Glenn - Ed.D.,CRC (George Washington University)
  Program Coordinator, Rehabilitation Counseling and Leadership, Substance Abuse Treatment and Vocational Rehabilitation, Complementary and Alternative Approaches in Rehabilitation, Use of Indigenous Practices in Rehabilitation
- Ed Jacobs - Ph.D. (Florida State University)
  Coordinator of the Master's Degree Program in Counseling, Creative Counseling, Group Counseling, Marriage and Family, Impact Therapy

ASSISTANT PROFESSORS

- John Blake - Ph.D. (University of Wisconsin-Madison)
  Rehabilitation Counseling, Vocational Rehabilitation program outome, psychosocial issues, attachment, hope
- Monica Leppma - Ph.D. (University of Central Florida)

Practicum and Internship Coordinator, Mental Health Counseling, Counseling in the School System, Counselor Development, Positive Emotions, Mediation and Spirituality
- Geroge Mamboleo - Ph.D. (University of Arizona)
  Rehabilitation Counseling
- Christine J. Schimmel - Ed.D. (Marshall University)
  Coordinator of School Counseling, Counseling Master's Program, School Counselor Role, Creative Counseling, Group Counseling in Schools
- Jennifer Taylor - M.S. (University of Florida)
  Counseling and Counseling Psychology

VISITING ASSISTANT PROFESSOR
- James W. Bartee - Ph.D. (University of Washington)
  Director of Training, Counseling Psychology Ph.D. Program, Counseling Psychology in Multinational Settings, Psychology, Neuroscience and Spirituality, Professional Training and Development

TEACHING INSTRUCTOR
- Regina Burgess - M.S., CRC, LPC (West Virginia University)
  Vocational Assessment, Rehabilitation Counseling

VISITING INSTRUCTOR
- Heidi O'Toole - MS (West Virginia University)
  Trauma, Addictions, Neuroscience, EMDR, Energy Psychology and Spirituality

PROFESSORS EMERITI
- L. Sherilyn Cormier - Ph.D. (Purdue University)
- James DeLo - Ph.D. (University of Pittsburgh)
- Ranjit K. Majumder - Ph.D. (University of Oklahoma)
- Robert L. Masson - Ed.D. (State University of New York)
- Jeffrey K. Messing - Ed.D. (Syracuse Unviersity)
- David J. Srebalus - Ed.D. (Indiana University)
- Roy Tunick - Ed.D. (University of Northern Colorado-Greeley)

ASSOCIATE PROFESSOR EMERITA
- Kathryn B. Greever - Ed.D. (West Virginia University)

Counseling

Edward E. Jacobs, Program Coordinator
Allen Hall, P.O. Box 6122
http://counseling.wvu.edu

Degree Offered

- Master of arts in counseling

The Department of Counseling, Rehabilitation Counseling, and Counseling Psychology of the College of Education and Human Services offers a master's program in counseling. The counseling M.A. program is fully accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and is a WVU program of excellence. Variations of the curriculum allow emphasis in school counseling and clinical mental health counseling. All applicants must comply with university, the College of Education and Human Services, and departmental requirements.

A degree in counseling provides a broad opportunity to work with children at the elementary-school level, adolescents at the secondary-school level, and all ages at the community level. The school counselor is involved in personal counseling, career guidance, vocational and educational counseling, family counseling, and consultation on classroom problems with teachers and administrators. Clinical mental health counselors work with all ages and populations in various community settings such as correctional facilities, treatment centers, mental health agencies, etc. Counselors must be equipped to work with both individuals and groups.

Students are encouraged to pursue their studies on a full-time basis; however, part-time students are accepted. Part-time admission is meant only for those who plan to take one or two courses a semester. If admitted with part-time status, students will NOT automatically be able to move into the full-time program. There are no summer practicum or internship placements.

Application

Applications for admission to the counseling program should be made to WVU's Office of Admissions. In addition to the admission requirements of the university and the College of Education and Human Services, the Department of Counseling, Rehabilitation Counseling, and Counseling Psychology has the following admission requirements:

- A baccalaureate degree with coursework in appropriate areas
- A minimum undergraduate grade point average of 2.8, based on a 4.0 system
- GRE scores (900 preferred; minimum of 800 on old system; 290 preferred on new system)
- Three letters of reference
- Completed WVU Graduate School Application
- Completion of the departmental application (http://counseling.wvu.edu/counseling/future_students/admissions) to the counseling program

Admission

The West Virginia University counseling department's admission process is a two-step procedure:

Step 1 is a review of paper credentials including references, department application (relevant major, general quality of application), work experience, GRE scores, and GPA. The initial screening decision is based upon this information. Successful applicants are then interviewed by program faculty.

Step 2 is the department interview, which considers interpersonal style relevant to working as a counselor, communication skills, capacity for empathic understanding and communication, ability to articulate professional goals, goals congruent with department focus, knowledge, understanding of counseling, and assessment of applicants' capacity to complete the counseling curriculum successfully.

Application deadline for fall admission is March 1 with review of completed applications beginning February 15. We only accept students once a year.

Major Requirements

All students who are candidates for a master's in counseling are required to take the following core courses:

A minimum cumulative GPA of 3.0 is required

COUN 501	Counseling Theory and Techniques 1	3
COUN 505	Theory and Practice of Human Appraisal	3
COUN 536	Theories of Human Development	3
COUN 606	Counseling Theory and Techniques 2	3
Select one of the following:		3
COUN 608	School Counseling Services [*]	
COUN 622	Introduction to Clinical Mental Health [**]	
COUN 609	Group Counseling Theory and Techniques	3
COUN 620	Lifespan Career Counseling	3
COUN 630	Children/Adolescents/Parents	3
COUN 634	Cultural Issues	3
COUN 640	Addictions Counseling	3
COUN 645	Couples and Family Counseling	3
COUN 664	Ethical Issues in Counseling	3
COUN 665	Diagnosis and Treatment Planning	3
COUN 668	Crisis Trauma Grief Counseling	3
COUN 684	Supervision Models/Counseling	3
COUN 685	Practicum	3
COUN 686	Counseling Internship	9
EDP 612	Introduction to Research	3
Total Hours		**60**

[*]   Required for school counselor certification only. A special school counselor certificate is available for individuals without a teaching background. The program includes an additional six hours of coursework.

[**]   Required for clinical mental health counseling students only. Note: doctoral-level courses in counseling have the prefix CPSY.

In addition to completing all coursework and the practicum and internship satisfactorily, the candidate must demonstrate the ability to assume the responsibility required of a professional counselor and the personal characteristics and ethical standards essential to effective working relationships with others.

These personal characteristics are assessed throughout the entire program with special emphasis during the clinical coursework components of the program and during the field experience. Students who do not meet professional and clinical standards in these areas are provided feedback, and resources for remediation are recommended. In these cases, successful remediation is required as a prerequisite for successful program completion. Students who violate ACA ethical standards will be evaluated for possible dismissal from the program.

Non Education Degree Students

Students seeking a degree in school counseling who do not have an education degree must take COUN 660 and a C&I elective.

Certification

Certification requirements in school counseling are the same as for the master's of arts in counseling, except as noted below:

- A minimum grade point average of 3.0
- Recommendation of the faculty
- A valid professional teaching certification is required **or** the completion of a six-hour block of professional education coursework (see department for list) in addition to the sixty-hour master's degree program
- Specialization area examination (Satisfactory performance is required for certification eligibility. This examination is administered under the auspices of the State Department of Education.)

Counseling Psychology

James W. Bartee, Director of Training

Allen Hall, P.O. Box 6122

Degree Offered:

- Doctor of philosophy in counseling psychology

All applicants must comply with the graduate requirements of the College of Education and Human Services and the Counseling Psychology program of study. The program includes coursework hours and training experiences in addition to the College of Education and Human Services requirements for the Ph.D. degree.

Admitted students are expected to understand and comply with the current revision of the Ethical Principles of Psychologists and Code of Conduct published by the American Psychological Association.

The area of specialization for the doctoral degree is oriented primarily toward training practicioner-scholars who have a substantial background in the philosophy and methods of psychology as a comprehensive science. Students are expected to work closely with faculty in doing research and in supervised professional practice. Successful completion of the program requires core coursework in counseling psychology, as well as in the foundations of psychology, statistics and research, and clinical training.

The counseling psychology program at West Virginia University is fully accredited by the American Psychological Association to offer the doctor of philosophy in this specialty area of professional training in psychology. Our next program review is scheduled for 2017.

Accreditation is a process that reflects the commitment of the institution to self-study and external-review by one's peers in seeking not only to meet professional standards but also to continuously seek ways in which to enhance the quality of education and training provided by the program.

For more information, please refer to The Office of Program Consultation and Accreditation, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242, phone: (202) 336-5979, fax: (202) 336-5978, e-mail: apaacred@apa.org.

COMPETENCY BASED TRAINING

Training in professional psychology in our Ph.D. program is based on the Competency Benchmarks initiative developed in conjunction with the Council of Counseling Psychology Training Programs (CCPTP) and the Council of University Directors of Clinical Psychology (CUDCP). They can be found on our website (http://counseling.wvu.edu/counseling_psychology) and in our Doctoral Student Handbook (http://counseling.wvu.edu/counseling_psychology/future_students). Foundational documents and related material can also be found on the APA website at: http://www.apa.org/ed/graduate/benchmarks-evaluation-system.aspx. All students are evaluted yearly to document their attainment of the various competencies germane to their level of training within the program.

CANDIDACY

Students are accepted for the preliminary study toward the Ph.D. degree upon admission into the program. Candidacy for the degree is the next stage in the program of study, and requires the following:

- Students must complete the prerequisite doctoral coursework with a 3.25 or better grade point average. The "Readiness for Practicum" benchmark competencies must be achieved.
- Passing scores on the written, comprehensive doctoral qualifying examination covering major areas in counseling psychology and research (Once advanced to candidacy for the degree, students are afforded an additional five years to complete all remaining elements of the program of study leading to the Ph.D. in counseling psychology.)

PRACTICUM TRAINING

A minimum of nine credit-hours requiring 600 on-site clock-hours, and must include at least 200 hours of direct client/patient service and 125 hours of one-to-one supervision by a licensed psychologist. Sites available to our students include the Carruth Center for Psychological and Psychiatric Services at WVU, other college counseling centers within a ninety-minute drive, Veterans Medical Centers, medical centers/hospitals, county agencies, community mental health centers, and private practice settings. All sites must be approved by the program as meeting the standards set forth in the Doctoral Counseling Psychology Handbook.

Internship

A one-year, full-time predoctoral internship is required in order to complete the program. Students are required to apply via the APPIC Match to APA-accredited programs. As part of the match policies, students must accept and attend the predoctoral internship provided by the match. These are typically out-of-state as only a few such programs exist in West Virginia and Morgantown. Students who do not match must petition for an alternative arrangement, approved at the discretion of the Counseing Psychology faculty.

As of the current, 2013-14 academic training-year the Counseling Psychology faculty adopted the training model recommend by the Council of Counseling Psychology Training Programs (CCPTP) that recommends the following training practicum training requirements for readiness for the predoctoral psychology internship:

Trainee successfully complete at least 450 face-to-face, program-sanctioned, doctoral practicum hours of assessment/intervention that includes evidence-based practice and at least 150 hours of supervision by a licensed psychologist that includes observation of the trainee's work. An additional aspect of readiness for internship is the submission for publication as an author or co-aurthor of a professional manuscript, or presenting at least two papers/posters/workshops at a regional, national or international professional conference or meeting.

Admissions

- The admission process consists of two stages and the pertinent materials are evaluated on several facets. Trainees are admitted each fall only for a typical cohort size of six. December 1 is the application deadline for the following fall semester.
- In Stage I, all submitted complete applications are reviewed by the faculty. Completed applications received after December 1 deadline are not guaranteed a review for the coming year, but time permitting, the admissions committee may chose to review them prior to the final selections for interviews.

Applications are screened based on the Departmental Application, Application to the Graduate School, and academic credentials provided to the Admissions Committee, including the following:

- Completion of a master's degree in an area related to counseling psychology
- Graduate grade point average of 3.5 or higher, verified by the official transcripts of graduate coursework
- Three letters of recommendation are required that support the applicant's competency in counseling, assessment, research, and personal qualities that indicate readiness for advanced study in professional psychology.
- GRE Scores: the Educational Testing Service has provided a new set of norms for those persons taking the Graduate Records exams on or after August 1, 2011. We have revised our recommended score levels to reflect these changes. For the Verbal Reasoning section, the faculty recommends a minimum score of 153. For the Quantitative Reasoning section a minimum score of 144 is recommended. If you are reporting scores on the GRE taken prior to August 1, 2011 a combined Verbal and Quantitative score of 1,000 points is recommended. Please remember the Educational Testing Service only reports scores that are five years aged or less. If your scores are older than that, you will need to take the test again.
- Applicants reporting GRE scores less than these recommended minima may still apply, but their applications may not be competitive with others whose scores achieve the recommended levels. Students offered admission typically have scores well above these minimal, however GRE scores are not the only factor considered by the admissions committee.

The scoring norms for the Analytical Writing section of the GRE have not been changed. A score of 3.0 (out of 6.0) or better on the Analytic Writing section is taken into account in evaluating the application and due credit accorded.

- Two years of relevant work experience is desirable, not necessarily full-time.

- Stage II: Those persons whose basic preparation, references, and relevant application materials recommend them for graduate study in professional psychology are invited to campus for a personal interview with the program faculty and selected students. These typically occur in early to mid-February.

The personal interview is required for a final admission decision. The interview helps to determine the applicant's interpersonal and clinical skills, which are predictive of success in graduate study, internship, and post-degree placement. If an applicant is unable to be on campus during interview day, a phone interview may be scheduled instead. However, in-person interviews are highly recommended. Based on a review of all written materials and the interview, the faculty determines to whom admission will be offered. A waiting list of qualified applicants is usually prepared as well.

- Preliminary admissions decisions are typically made in the two weeks following interviews. Applicants invited to join the program have until April 15 to accept or decline the offer. Final admissions will occur in the next few weeks if openings remain.

Doctor of Philosophy

MAJOR REQUIREMENTS

CPSY 701	Advanced Counseling Psychology Interventions	3
CPSY 709	Advanced Group Counseling / Therapeutic Interventions	3
CPSY 710	Cognitive-Affective Behavior	3
CPSY 734	Multicultural Psychology	3
CPSY 735	Social Psychology	3
CPSY 738	Life Span Psychology	3
CPSY 740	Assessment of Psychopathology	3
CPSY 745	History and Systems of Psychology	3
CPSY 750	Physiological Psychology	3
CPSY 760	Introduction to Counseling Psychology	3
CPSY 763	Advanced Theories of Counseling Psychology	3
CPSY 764	Intellectual Assessment	4
CPSY 766	Vocational Theory and Assessment	3
CPSY 769	Personality Testing and Interpretation	3
CPSY 780	Professional and Ethical Issues in Counseling Psychology	3
CPSY 783	Consultation and Supervision	3
CPSY 770	Doctoral Practicum in Counseling Psychology	9
CPSY 772	Internship	12
CPSY 781	Research Practicum	1
CPSY 782	Research Methods and Design	3
Research		18
CPSY 797	Research	
CPSY 799	Graduate Colloquium	6
EDP 611	Measurement/Evaluation in Educational Psychology	3
EDP 613	Statistical Methods 1	3
EDP 614	Statistical Methods 2	3
Total Hours		**107**

THE DOCTORAL DISSERTATION

- By the end of the second year of study, the candidate must define and refine a research topic and select a doctoral dissertation chair. At that time, students must also secure an additional four members to serve on the doctoral committee whose credentials must meet specific criteria as determined by the College of Education and Human Services.
- The candidate prepares and orally presents a research prospectus that elucidates the relevant theory and scientific literature, the research design, and the quantitative or qualitative methods to be used in the study. The written prospectus must be approved by the committee prior to submitting an IRB protocol.
- Approval must be granted by the Institutional Review Board at West Virginia University to proceed with the proposed study.
- Upon completion of the research as determined by the dissertation chair, the student will present an oral defense of his or her study to the full committee and scholarly community. The committee must agree the defense is successful, and the document is ready to be submitted to the Electronic Thesis and Dissertation (ETD) office at West Virginia University. The dissertation is considered complete when the ETD office accepts the final draft approved by the committee.

PREDOCTORAL INTERNSHIP

- After admission to candidacy, students are required to enter the national psychology predoctoral internship matching program (APPIC). APPIC comprises the national database of APA-accredited and APPIC-listed internship programs and positions in the United States. The application process is lengthy and demanding both of time and resources.
- The "Readiness for Internship" benchmarks competencies must be achieved and documented on the competency benchmarks rating form, signed and attested by the candidate's advisor.
- In order to apply for internship, the student must have successfully proposed their dissertation.
- Only if a student is unsuccessful in matches across two years, or there are significant extenuating circumstances, will permission to seek an internship outside the match be granted at the faculty's discretion.
- APA-accredited/APPIC-listed internships are typically off-campus and likely to be out-of-state. They are full-time, twelve-month paid positions usually beginning and ending in August. A successful final evaluation from the internship supervisor is required to complete this element of doctoral study in professional psychology. See *Internship* on the program overview page for further details.

Additional specifics regarding the internship are available on the program website (http://counseling.wvu.edu/counseling_psychology).

Clinical Rehabillitation and Mental Health Counseling

Degree Offered

- Master of science

Master of Science in Clinical Rehabilitation and Mental Health Counseling

The clinical rehabilitation and mental health counselor education program in the College of Education and Human Services offers a curriculum at the master's degree level. All students complete coursework related to rehabilitation, mental health and disability issues as well as coursework in counseling and resource management. The clinical rehabilitation and mental health counseling program is available for both full- and part-time students. The e-campus program is offered through WVU Online and starts in the fall of each year. Students may work with a faculty advisor to substitute on-campus counseling courses for those offered online as part of their plan of study.

This specialty prepares professional counselors to coordinate resources and to provide assistance in employment, independent living, and personal or economic development to persons with disabilities and other individuals to achieve their personal, career, and independent living goals in the most integrated setting possible. It also prepares counselors as mental health counselors to provide services in community mental health settings and independent practice.

The objectives of our program are linked to provide: educational experiences for every student that facilitates the development of knowledge, skills, and beliefs necessary to practice as a qualified rehabilitation and mental health counselor; learning opportunities to support students' ability to implement culturally responsive and ethically sound counseling practices, and clinical training environments that are focused on real world expectations. Graduates work in vocational rehabilitation agencies and companies, and mental health and substance abuse service agencies. The program is fully accredited by the Council on Rehabilitation Education and is a WVU Program of Excellence.

FACULTY
PROGRAM COORDINATOR

- Margaret K. Glenn - Ed.D., CRC (The George Washington University)

ASSISTANT PROFESSORS

- John Blake - Ph.D. (University of Wisconsin-Madison)
  Rehabilitation Counseling, Vocational Rehabilitation program outcome, psychosocial issues, attachment, hope
- George Mamboleo - Ph.D. (University of Arizona)
  Rehabilitation Counseling

TEACHING INSTRUCTOR

- Regina Burgess - M.S., CRC, LPC (West Virginia University)

Application

Applications for admission to the rehabilitation counseling program should be made to the WVU Office of Admissions. In addition to the admission requirements of the university and the College of Education and Human Services, the rehabilitation counseling program has the following admission requirements.

- A baccalaureate degree with coursework in appropriate areas

- A minimum undergraduate grade point average of 2.8 based on a 4.0 system (students with a lower grade point average and otherwise exceptional credentials may be admitted provisionally); under 2.5 GPA cannot be admitted
- GRE or MAT scores
- Three letters of reference
- Completion of the WVU Graduate School Application (http://grad.wvu.edu)
- Completion of the program application found on the program's website (http://counseling.wvu.edu/rehabilitation_counseling/future_students)

The initial screening decision is based upon this information as well as considering the applicant's previous work or related experiences related to persons with disabilities. Successful applications are then interviewed by program faculty. Final decisions about admission are based on both the requirements and the interview process.

Admission

Admission to the program is a two-step procedure. Step one involves a review of credentials presented in the application materials including references, department application (relevant major; general quality of application), GPA, and GRE scores (verbal, quantitative, and analytical writing). The Miller's Analogy Test (MAT) may be taken in place of the GRE. Step 2 is the department interview which considers personal style relevant to working as a counselor, communication skills, capacity for empathic understanding and communication, ability to articulate professional goals, goals congruent with department focus, knowledge and understanding of rehabilitation counseling as well as an assessment of applicants' capacity to complete the rehabilitation counseling curriculum successfully.

The preferred application deadline for receiving completed materials is March 15. However, applications are accepted until April 15 if space is available.

The program of study includes sixty credit hours of coursework including a practicum (150 hours) and a faculty-supervised internship (600 hours) in the final semester. Graduation is contingent upon completion of these 60 credit hours with a 3.0 grade point average and successful completion of the comprehensive examination. In addition to completing coursework satisfactorily, a candidate must demonstrate the ability to assume the responsibilities required of a professional rehabilitation counselor and the personal characteristics essential to effective working relationships with others.

Students may take the professional examination to obtain national certification as a rehabilitation counselor during their internship semester. This can be done in lieu of the comprehensive examination and students are encouraged to do so.

Required Courses

All students are required to take the following core courses:

A minimum GPA of 3.0 is required in all courses

A grade of C or higher is required in all courses		
COUN 501	Counseling Theory and Techniques 1	3
COUN 505	Theory and Practice of Human Appraisal	3
COUN 606	Counseling Theory and Techniques 2	3
COUN 609	Group Counseling Theory and Techniques	3
REHB 600	Introduction to Rehabilitation Services	3
REHB 610	Medical Aspects of Rehabilitation	3
REHB 612	Disability Across the Lifespan	3
REHB 620	Career Development and Job Placement	3
REHB 624	Rehabilitation Client Services	3
COUN 664	Ethical Issues in Counseling	3
REHB 672	Counseling Practicum	3
REHB 675	Clinical Practice	9
REHB 680	Seminar	3
COUN 634	Cultural Issues	3
COUN 640	Addictions Counseling	3
COUN 645	Couples and Family Counseling	3
COUN 665	Diagnosis and Treatment Planning	3
COUN 668	Crisis Trauma Grief Counseling	3
Total Hours		**60**

SUGGESTED PLAN OF STUDY

The following plan of study is an example of how the program can be completed through the eCampus program and include sixty credit hours of study for licensure application. Three additional electives are offered to allow graduates to meet the requirements of licensing but each state has different expectations for coursework. It is the responsibility of the student to investigate those expectations with the state licensing body.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
REHB 600	3	REHB 612	3	COUN 668	3
REHB 610	3	REHB 620	3	COUN 640	3
REHB 680	3	COUN 505	3	COUN 645	3
COUN 501	3	COUN 606	3	COUN 634	3
	12		**12**		**12**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
COUN 664	3	REHB 675	9	Courses required for licensure:	
REHB 624	3	COUN 609	3	COUN 634	
REHB 672	3			COUN 640	
COUN 665	3			COUN 645	
				COUN 665	
	12		**12**		**0**

Total credit hours: 60

Department of Curriculum and Instruction/Literacy Studies

Degrees Offered

- Master of Arts (without or with certification)
- Doctor of Education
- Doctor of Philosophy

The Department of Curriculum and Instruction/Literacy Studies is comprised of several areas including Curriculum and Instruction, Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies and Higher Education. Degree programs prepare future educators and administrators who aspire to research, develop, and implement effective leadership and innovative curricular and instructional practices for individuals ages pre-K to adult. Our programs provide opportunities for students to earn initial teacher licensure and pursue advanced degrees at the Masters and Doctoral levels. The primary focus of the master of arts and doctor of education programs in the department is to help students develop deeper knowledge, more diverse skills, an inquiry-oriented approach, and professional competencies related to the various ares in the department. Faculty in the department are recognized leaders in research, teaching, and service who are committed to providing a rigorous and engaging educational experience.

For more information, please visit our website at http://cils.wvu.edu/.

FACULTY

CHAIR

- Dale S. Niederhauser - Ph.D. (University of Utah)
  Foundations of Education, Educational Technology, Elementary Education: Early Childhood

PROFESSORS

- Elizabeth A. Dooley - Ed.D. (West Virginia University)
  Elementary Education, Learning Disabilities, Mental Retardation, Multicultural Education
- Mary E. Haas - Ed.D. (Indiana University)
  Social Studies Education, Geographic Education, Global Education, Holocaust Education
- Helen Hazi - Ph.D. (University of Pittsburgh)
  Educational Leadership Studies, Public Education Administration
- Dale S. Niederhauser - Ph.D. (University of Utah)
  Foundations of Education, Educational Technology, Elementary Education: Early Childhood
- Steven D. Rinehart - Ed.D. (West Virginia University)

Reading Education, Language Arts, Clinical Reading

- James Rye - Ph.D. (Pennsylvania State University)
Science Concept Learning: Science/Technology/Society Education, Human Nutrition and Health Education
- Samuel F. Stack, Jr. - Ph.D. (University of South Carolina)
Social Foundations of Education
- Randall L. Wiesenmayer - Ph.D. (Pennsylvania State University)
Science Education, Science/Technology/Society (STS) Education, Environmental Education

ASSOCIATE PROFESSORS

- Johnna J. Bolyard - Ph.D. (George Mason University)
Mathematics Education, Mathematics Teacher Development, Use of Representation in Mathematics Teaching
- Jeffrey Carver - Ed.D. (Illinois State University)
Science Education, Organic Chemistry, Physics
- Sharon Hayes - Ph.D. (University of Florida)
Elementary Education, Action Research, Professional Development & Literacy
- Charline J. Barnes Rowland - Ed.D. (Virginia Polytechnic Institute and State University)
Literacy Education, Teacher Education
- Aimee L. Morewood - Ph.D. (University of Pittsburgh)
Reading Education, Professional Development, Effective Teaching Strategies
- Allison Swan Dagen - Ph.D. (University of Pittsburgh)
Instructional and Learning Reading
- Joy Faini Saab - Ed.D. (West Virginia University)
Associate Professor, Early Childhood Education, Elementary Education, Creative Arts, Reggio Emilia Studies, Process Education, International Models of Education
- Sarah Selmer - Ed.D. (West Virginia University)
Mathematics Education
- Robert A. Waterson - Ph.D. (Purdue University)
Social Studies History, Democracy and Citizenship Education, Multicultural Education

ASSISTANT PROFESSORS

- Malayna Bernstein - Ph.D. (Northwestern University)
English Education
- Matthew P. Campbell - Ph.D. (Oregon State University)
Mathematics Education
- Melissa Luna - Ph.D.
Learning Sciences, Environmental Education, Science Education, Elementary Education
- Melissa Sherfinski - Ph.D. (University of Wisconsin, Madison)
Curriculum Theory and Research, Research Methodology
- Audra Slocum - Ph.D. (Ohio State University)
Appalachian Education, Multicultural Teacher Education, Adolescent Literacies
- Erin McHenry Sorber - Ph.D. (Pennsylvania State University)
Educational Policy Studies, Administrative, Planning, and Social Policy
- Nathan Sorber - Ph.D. (Pennsylvania State University)
Higher Education
- Eva Erdosne Toth - Ph.D. (University of Illinois)
Science Education, Biology, Chemistry
- Keri D. Valentine - Ph.D. (The University of Georgia, Athens)
STEM Education (Mathematics), Learning, Design, & Technology, Science Education

VISITING ASSISTANT PROFESSOR

- Jane S. Cardi - Ed.D. (West Virginia University)
French, Gifted Education

TEACHING ASSISTANT PROFESSOR

- Heiko Everwien ter Haseborg - Ph.D. (West Virginia University)
Curriculum, Literacy, & Cultural Studies, Secondary Education, Foreign Languages
- Ashley Dawn Atkins Martucci - Ed.D. (West Virginia University)
Early Childhood Education, Child Development

- John Oughton - Ed.D. (West Virginia University)
  Instructional Technology & Curriculum & Instruction, Secondary Education, Special Education

CLINICAL ASSISTANT PROFESSOR

- Stephanie Morris Lorenze - Ed.D. (West Virginia University)
  Secondary Education

TEACHING INSTRUCTOR

- Beth B. Satterfield - M.S. (West Virginia University)
  Early Childhood Education, Child Development

CLINICAL INSTRUCTOR

- Matthew Anderson - M.A. (Columbia University)
  Educational/Developmental Psychology
- Sylvia Berryhill - M.A. (Penn State University)
  Principal Certification, Reading Specialist

PROFESSORS EMERITI

- John L. Carline - Ph.D. (Syracuse University)
  Emeritus
- Boyd D. Holtan - Ed.D (University of Illinois)
  Emeritus
- Ronald V. Iannone - Ed.D. (Syracuse University)
  Emeritus
- C. Kenneth Murray - Ph.D. (Ohio State University)
  Emeritus
- Patricia Obenauf - Ed.D. (University of Virginia)
  Emertia
- Patricia K. Smith - Ed.D. (West Virginia University)
  Emerita

ASSOCIATE PROFESSORS EMERITI

- Ardeth M. Deay - Ph.D. (Cornell University)
  Emerita
- Perry D. Phillips - Ed.D. (West Virginia University)
  Emeritus

ASSISTANT PROFESSORS EMERITI

- Michael A. Caruso - M.A. (West Virginia University)
  Emeritus
- Barbara Mertins - M.S.L.S. (Syracuse University)
  Emerita

ADMISSIONS

Master of Arts Admission

All applicants for the <u>MASTER of ARTS</u> must:

- Submit WVU Graduate application for admission, found at http://grad.wvu.edu. (be sure to upload all required information)
- Hold a Bachelor's degree with a 2.75 GPA or above
- Submit a **one-page goal statemen**t. The Statement should be of professional experiences, career ambitions and will be considered a writing sample
- **Test requirements**: Praxis Core Academic Skills for Educators # 5712 (reading, writing & math) or Graduate Records Examination. Testing may be waived with a score of 26 on ACT, 1170 on SAT or MA degree.
- TOEFL (international students) - TOEFL score must be at least 550 (paper) or 213 (computer) 79-80 iBT or IELTS 6.5.

Note: Students should contact the Center for Student Advising and Records for a transcript analysis.

Doctoral Admission, Ed.D.

All applicants for the Curriculum & Instruction Ed.D (major code 4515) must:

- Comply with the requirements of West Virginia University, the College of Education and Human Services, and curriculum and instruction program
- Submit the WVU Graduate application for admission, found at http://grad.wvu.edu. The required information to be uploaded to the application is:

    Scholarly writing samples - writing samples will be evaluated by teams of faculty members.

    Three letters of recommendation, addressed to the Curriculum & Instruction Ed.D. Review Committee. The letters explicitly address the candidate's potential as a doctoral student.

    Writing sample. The writing sample provides clear evidence of the student's academic writing ability.

     Personal Vita

     Goal statement, a clear statement of professional goals, well written, and clearly indicates how the applicant's goals fit with the program

- Earned an undergraduate degree GPA of 3.0 or higher
- Earned a graduate degree GPA of 3.25 or higher
- Completed the Graduate Records Examination (GRE) **or** Millers Analogy Test (MAT) within the last five years. Please contact department for minimum score requirements.
- Completed the TOEFL if applying as an international students. The TOEFL score must be at least 79 (internet version), 213 (computer-based), or 550 (paper-based)79-80 iBT or IELTS 6.5.

A face-to-face, phone, or Internet interview may be included in the application process before students are formally admitted.

 An Admissions Committee composed of faculty members will screen all application.

Doctoral Admission, PhD

All applicants Interdisciplinary Ph.D. in Education, (major code 4545) must:

- Submit the WVU Graduate application for admission, dated and received by the department by December 1**.** The application is found at http://grad.wvu.edu. Required information to be uploaded with the application is as follows:

Scholarly writing samples that will be evaluated by teams of faculty members. A new writing sample may be requested if the student applies more than once

Three letters of recommendation, addressed to Interdisciplinary Ph.D. in Education Review Committee

A statement of purpose, discussing research goals and how they can be met through the Interdisciplinary Ph.D. program. We expect students to be familiar with the faculty in CEHS and how the faculty might help them achieve their research goals. Applicants must indicate their intended focus area (area of emphasis) for their Ph.D. program. Please review and add one of the following to the statement of purpose.

1. HO88 – Educational Leadership & Policy Studies

2. HO89 – Learning, Instructional Design & Technology

3. HO90 – Curriculum, Literacy & Culture Studies

4. HO95 – Human Development & Family Studies

- Achieved **3.0** GPA or above in their undergraduate degree and **3.5** or above GPA in their graduate degree.
- Completed the Graduate Records Examination (GRE) **or** Millers Analogy Test (MAT) withing the last five years. Please contact the department for minimum score requirements
- Completed the TOEFL (international students). TOEFL scores must be at least 80 (internet version), 213 (computer-based), or 550 (paper-based) 79-80 iBT **or** IELTS 6.5.

Incomplete applications will not be reviewed.

A face-to-face, phone, or Internet interview may be required before students are formally admitted.
An Admissions Committee composed of faculty members will screen all applications.

Program Policies and Matriculation Benchmarks— Teaching Certification Programs

All students enrolled in Master and Certification (MAC) programs in the Department of Curriculum and Instruction/Literacy Studies must adhere to the following policies. Please consult with your adviser to discuss your program plan.

CRITERIA FOR ADMISSION TO THE M.A. PROGRAMS IN ELEMENTARY/SECONDARY EDUCATION:

- Bachelor's degree
- GPA 2.75
- One page goal statement, describing the reason you wish to complete this program.
- Testing requirements: Passing scores on the combined Praxis Core Academic Skills for Educators: #5751 **OR** GRE. The tests may be waived if the student has completed another masters degree or had 26 on the ACT or 1170 on the SAT.
- TOEFL, required of International students, with the following scores: TOEFL 550 paper or 213 computer. (79-80 iBT)

MATRICULATION CRITERIA:

- Contact the Center for Student Advising and Records http://advising.cehs.wvu.edu, for a transcript analysis for content area requirements.
- A 3.0 GPA in graduate coursework, with a "C" or above in all graduate level courses are required for graduation
- C&I 602 and EDP 600 are prerequisite courses for content methods coursework.
- C&I 602 must be taken in the first or second semester after admission into the program, and completed with a "B" or better
- Provide the results of an "Online Criminal Background and Fingerprinting Check to school placement personnel. Please see the Center for Student Advising and Records http://advising.cehs.wvu.edu for more information.
- Application for transient credit for graduate courses taken at other institutions must be approved by the adviser and the associate dean for academic affairs, or designee
- Elective courses must be approved by the adviser prior to enrollment.
- All students must complete 125 hours of approved fieldwork (embedded in the program)
- All students must successfully complete a professional portfolio that demonstrates mastery of WV Professional Teaching standards and specialization content. Students submit the portfolio in C&I 680.

CRITERIA FOR ENTERING STUDENT TEACHING PLACEMENT:

- Completion of all professional education and subject content coursework is required before a student may enter a student teaching placement
- Completion and submission of Student Teaching Application 1 year before your Student teaching semester
- Hold a State Student teaching Permit
- Successful completion of the PRAXIS II in the content area in which you are student teaching. Test scores must be submitted to the Center for Student Advising and Records one full semester before the student teaching semester.
- Approval by the Certification Officer that all requirements have been met.

CERTIFICATION

Students seeking licenses to teach in the State of West Virginia must be recommended by the Certification Officer, Michael Sekula. Recommendations are provided after all the following criteria have been completed:

1. Program completion and Registrar's verification of graduation

2. All students must submit passing scores for the appropriate Praxis PLT to the Center for Student Advising and Records prior to recommendation for certification.

3. Submission of all appropriate forms to the Certification Officer. As state certification requirements change, additional coursework may be required.

Note: State requirements for certification may change. Students are responsible for complying with all state requirements for certification at the time of their request for certification.

Master of Arts Elementary Education with Initial Teaching Certification

This program is available to those students who hold a bachelor's degree in non-education fields or other education fields and choose to pursue a degree and certification in teacher education. This program is also designed for career changers, individuals who choose to change careers after several years on the job.

This program requires 36 hours of education core classes, 12 hours of clinical experience, and 45 hours of content areas courses. Students must consult the Center for Advising and Records for a transcript analysis to determine the exact content requirements required.

Master of Arts in Early Childhood Education (Pre K-4)

This program is designed for those individuals who choose to become experts in early childhood education. Students gain practical experience by working with young children throughout their educational experience. This program is currently not admitting new students due to program review.

Secondary Education Master's Degree Programs with Teaching Certification

The purpose of the secondary education program is to provide rigorous experiences that prepare individuals to be highly qualified and effective teachers.   Students pursuing a **master of arts in secondary education with initial certification** may choose one of **eight content specialization** areas (English, German, French, Spanish, math, science, or social studies). Teacher certification requirements are based on the West Virginia Department of Education's Policy 5100, Approval of Educational Personnel Preparation Programs and Policy 5202, Licensure of Professional/ Paraprofessional Personnel. This program requires 36 hours of education core classes, 12 hours of clinical experience, and 37- 56 hours, (depending on the area) in content areas courses. Students must consult the Center for Advising and Records for a transcript analysis to determine the exact content requirements required.

MASTERS-ONLY PROGRAMS

MASTERS IN EDUCATIONAL/LEADERSHIP/PUBLIC SCHOOL ADMINISTRATION

This program is not accepting new students at this time.

The Educational Leadership – Public Education Administration Program at West Virginia University prepares individuals for leadership positions in elementary, secondary, and post-secondary educational institutions. Although most of our students pursue administrative careers at the secondary-education level, some prepare for college or university research, teaching, and/or staff positions.

Online Masters (M.A.) in Higher Education Administration

The master's program is designed to enhance leadership skills and prepare students for administration positions within college and university settings.

FEATURES

- Online graduate program with options for face-to-face courses
- Part-time or full-time enrollment options
- Courses can be taken from any geographic location
- Flexible program of study (two to eight years to complete the program)
- Advanced learning platform technologies (synchronous and asynchronous)
- Courses taught by full-time faculty and administrators

CAREER PLACEMENT

- Alumni have been placed in executive, administrative (business administration, academic affairs, and student affairs), and faculty support positions.
- Higher education administrators held about 161,800 jobs in 2012 and employment in this area is projected to grow 15% from 2012 to 2022, faster than the average for all occupations.
- Higher education administrators work at colleges, universities, community colleges, and technical schools.

MASTER OF ARTS IN HIGHER EDUCATION CURRICULUM AND TEACHING PROGRAM

Designed for individuals who wish a master of arts degree in education focusing on teaching in higher education. This program provides flexibility, knowledge, and skills in education especially useful for international students and other students who do not wish to teach in an American public school setting.

Online Advanced Master of Arts in Elementary Education Program

Designed for individuals who hold a teaching license in elementary education. This program provides increased knowledge, skills, and competence for teachers working with students in elementary school settings. The program consists of 36 credit hours and is offered online through the Electronic Campus of the Southern Regional Education Board (SREC). All students pay in-state tuition rates for courses offered through the Electronic Campus regardless of residency.

Online Advanced Masters of Arts in Secondary Education with SCIENCE emphasis

Designed for individuals who hold a teaching license in secondary education with a science specialization. This program provides increased knowledge, skills, and competence for teachers working with students in secondary science. The program consists of 36 credit hours and is offered online through the Electronic Campus of the Southern Regional Education Board (SREC). All students pay in-state tuition rates for courses offered through the Electronic Campus regardless of residency.

Online Advanced Masters of Arts in Secondary Education with SOCIAL STUDIES emphasis

Designed for individuals who hold a teaching license in secondary education with a specialization in social studies. This program provides increased knowledge, skills, and competence for teachers working with children in secondary social studies. The program consists of 36 credit hours and is offered online through the Electronic Campus of the Southern Regional Education Board (SREC). All students pay in-state tuition rates for courses offered through the Electronic Campus regardless of residency

DOCTORAL PROGRAMS

THE DOCTOR OF EDUCATION WITH A MAJOR IN CURRICULUM & INSTRUCTION

The Curriculum and Instruction Doctorate in Education Program provides a personal approach to graduate studies. This program creates individually-planned programs of study to meet the unique experiences and professional goals of each student. Designed to meet the needs of working professionals, the program's courses are offered in the evenings.   The program provides flexibility to support career goals regarding educational research, curriculum design and evaluation, instructional support, and/or leadership in K-12 schools, universities, and other educational organizations. The program addresses three broad areas:

- A major emphasis in one of the following areas: curriculum studies, social theory, teaching and learning, diversity, and technology.
- A specialization or minor in one of the following areas: content (e.g. English education, STEM education, etc.) or integrated area (i.e., diversity, technology, evaluation, research, foundations, etc.)
- Research and educational foundations core: emphasizes the centrality of research commitment and competence—the ability and eagerness to conduct research as well as the ability to read, interpret and engage in professional discourse about research.

THE DOCTOR OF PHILOSOPHY WITH A MAJOR IN EDUCATION

The Doctor of Philosophy degree program provides a rigorous course of study along with mentored research and teaching experiences to enable students to achieve core educational objectives as scholars in four specialization areas: Educational Leadership and Policy; Learning, Instructional Design and Technology; Curriculum, Literacy and Cultural Studies; Human Development and Family Studies. Several thematic contexts, critical to our state and region, provide the platform for the study of education and achieving the competencies in each specialization area. These unique themes include: the rural nature of our state context, the poverty many children and families live in throughout the region, and the cultural context of Appalachia, all as they impact education. The research interests of faculty members participating in the program address aspects of these themes. Research and scholarly experiences prepare graduates who plan to pursue a research agenda in higher education or in educational research/policy centers.

DOCTOR OF HIGHER EDUCATION ADMINISTRATION

FEATURES:

1. Hybrid graduate program with options for online and face-to-face courses
2. Part-time or full-time enrollment options
3. Flexible program of study
4. Synchronous online courses
5. Courses taught by full-time faculty and professors

CAREER PLACEMENT:

- Executive, administrative (business administration, academic affairs, and student affairs) and faculty support placements.
- Higher education administrators held about 161,800 jobs in 2012 and employment in this area is projected to grow 15% from 2012 to 2022, faster than the average for all occupations.
- Faculty Positions
- Policy Positions
- Higher education administrators work at colleges, universities, community colleges, and technical schools.

Curriculum and Instruction

Degree Offered

- Doctor of Education with a major in Curriculum & Instruction

The Curriculum and Instruction Doctorate in Education Program provides a personal approach to graduate studies. This program creates individually-planned programs of study to meet the unique experiences and professional goals of each student. Designed to meet the needs of working professionals, the program's courses are offered in the evenings.   The program provides flexibility to support career goals regarding educational

research, curriculum design and evaluation, instructional support, and/or leadership in K-12 schools, universities, and other educational organizations. The program addresses three broad areas:

- A major emphasis in one of the following areas: curriculum studies, social theory, teaching and learning, diversity, and technology.
- A specialization or minor in one of the following areas: content (e.g. English education, STEM education, etc.) or integrated area (i.e., diversity, technology, evaluation, research, foundations, etc.)
- Research and educational foundations core: emphasizes the centrality of research commitment and competence—the ability and eagerness to conduct research as well as the ability to read, interpret and engage in professional discourse about research.

Program Objectives:

The Ed.D. in Curriculum and Instruction prepares students to teach in higher education or to work with school districts or other agencies and organizations where teaching and learning is emphasized. The program provides flexibility to support career goals regarding curriculum design and evaluation, instructional support, and/or leadership in K-12 schools, universities, and other learning organizations.

Program Outline:

When admitted to the doctoral program each student is assigned an adviser. The role of the adviser is to help the student develop a program of study and put together the initial doctoral committee. Within the first 18 hours of formal doctoral coursework the student must submit a **Doctoral Committee Form** with signatures of at least 3 members, and a **Program of Study Form** signed by all Doctoral Committee members. Upon completion of the Program of Study form, the Doctoral committee must be composed of a minimum of five members, of which three must be regular members of the graduate faculty of the College of Education and Human Services. The student's major adviser (chairperson) must be from the major program area and must be a regular member of the graduate faculty. At least two and no more than three members of the doctoral committee must be from the major program area of study. At least one member of the doctoral committee must be from the minor program area of study. At least one member of the doctoral committee, who has professional relevance to the program of study, may be from outside of the program area. * No more than one person may be a non-member of the graduate faculty.

Once the student has selected a committee, it is formalized by the **Doctoral Committee Approval form**, which is signed by each committee member, the major chairperson, the department chairperson, and the student. It is then submitted to Char Allen in the Center for Student Advising and Records where the signature of the Dean or Dean's designee will be obtained.
The student, with the approval of the student's major adviser, may initiate a change in committee membership, by completing a **Change of Committee form** with signatures of the member being replaced (if still available to serve), the student, the major adviser, and the new committee member. It is then submitted to Char Allen in the Center for Student Advising and Records where the signature of the Dean or Dean's designee will be obtained on the form. Char Allen compiles all student forms, tracks students' progress, and checks compliance with university and college procedures.

Doctoral Admission, Ed.D.

All applicants must comply with the requirements of West Virginia University, the College of Education and Human Services, and curriculum and instruction program area. Prospective candidates to the Curriculum & Instruction Ed.D must:

- Submit WVU Graduate application for admission, found at http://grad.wvu.edu. (Be sure to upload all required information)
- Submit proof of 3.0 or higher undergraduate GPA
- Submit proof of 3.25 or higher graduate GPA
- Submit scores for Graduate Records Examination (GRE) **or** Millers Analogy Test (MAT), no older than five years. Please contact department for minimum score requirements.
- Submit scores for TOEFL (international students). TOEFL scores must be at least 79 (internet version), 213 (computer-based), or 550 (paper-based)79-80 iBT or IELTS 6.5.

Required Supplemental Materials to be uploaded to the WVU application:

- Scholarly writing samples that provide clear evidence of the student's academic writing ability.   .
- Three letters of recommendation that explicitly address the student's potential as a C&I doctorate student.
- Personal Vita
- A goal statement that provides a clear statement of professional goals, well written and clearly indicates how the applicant's goals fit with the program.

A face-to-face, phone, or Internet interview may be required before students are formally admitted.

An Admissions Committee composed of faculty members will screen all applications and materials. **Incomplete applications will not be reviewed.**

Doctor of Education
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.25 is required in all graduate coursework

Research Core		15
EDP 710	Seminar	
EDP 613	Statistical Methods 1	
SCFD 615	Qualitative Research Methods	
SCFD 715	Advanced Qualitative Research	
Additional 600-level or higher research course		
Major Requirements		**28**
C&I 701	Curriculum Development	
C&I 707	Theories, Models and Research of Teaching	
C&I 708	Contemporary Determinants of Curriculum	
C&I 786	Curriculum Evaluation	
C&I 788	Higher Education Curriculum	
C&I 789	Teaching in Higher Education	
C&I 799	Graduate Colloquium	
C&I 794	Seminar	
Electives		
Social and psychological foundations Core		**6**
SCFD 620	Philosophy of Education	
SCFD 640	History of American Education	
SCFD 793	Special Topics	
EDP 703	The Adult Learner	
Minor area		**24**
Dissertation		**12**
C&I 798	Thesis or Dissertation	
Total Hours		**85**

RESIDENCY

This program requires two consecutive semesters of residency.

COMPREHENSIVE EXAMINATIONS

Comprehensive examinations (major, minor and core) are sometimes called "comprehensives," "competencies," "prelims," or "qualifying exams." These examinations occur when coursework has been completed or substantially completed and are intended to provide a rigorous comprehensive assessment of the
student's achievement and professional potential. The nature of the examinations must be specified in the program of study and must include written products covering the major, minor, and college core areas. The written components may be followed by an oral examination.

ADMISSION TO CANDIDACY

A student is officially admitted to candidacy for the Ed.D. by satisfactorily passing the comprehensive examinations in the major and minor areas of study and
submitting the completed Admission To Candidacy form to the Center for Student Advising and Records. **Doctoral candidates are allowed a period of no more than five years beyond the date of Admission to Candidacy to complete the remaining degree requirements**. In the event a student fails to complete the doctorate within five years after the date of Admission to Candidacy, s(he) must apply for an extension of time. This may require repeating comprehensive examinations and/or meeting any other requirements specified by the student's committee and University.

After Admission to Candidacy, students are required to register for at least one credit hour each term (excluding summer) as a condition of their continued candidacy. Students who fail to maintain continuity of enrollment can be dropped from candidacy.

Prospectus

When a student passes his or her comprehensive exam, s(he) then forms his or her dissertation committee by adding two additional committee members for a total of five members. These new committee members should be selected based upon the degree to which they support the research focus and the line of inquiry of the student's dissertation. The prospectus should address the first three chapters of the dissertation (or their equivalent):

- Statement of the problem and rationale
- Review of relevant literature
- Research methods and study design

Prior to completing the prospectus, the student and his or her adviser should have a clear understanding of the role each committee member will play in terms of feedback for the prospectus. Some members may need to be more involved to provide guidance and feedback as the prospectus is developed while others may be able to wait until the document is complete before providing guidance or feedback. These roles and relationships should be negotiated and clearly communicated within the committee as the student begins his or her work on the prospectus. Each committee member must receive a copy of the prospectus at least **two weeks** before the prospectus defense. The student should confirm whether each committee member wants a hard copy or an electronic copy of the document at that time.

The prospectus defense should be advertised no later than one week before it takes place. The announcement should include the following: Title, abstract, author, defense time and location. It should take place on campus and in a location where the public can attend. While the prospectus defense is public up to the point of committee deliberation, the adviser may exercise discretion regarding attendees if he or she feels that the necessary conditions for a supportive and productive meeting are compromised. Guests to any defense are expected to limit their explicit participation in the defense to the specified question and answer period.

Dissertation

A student's dissertation should demonstrate coherent line of inquiry that represents a reasonable outcome given the nature and content of his or her program. Members of the dissertation committee should have adequate expertise to judge the quality of the methods, content, and results of the dissertation. If the committee lacks any element of expertise needed to judge the quality of any part of the dissertation, then the student and adviser should strive to seek out external support to support those needed elements in order to ensure the overall quality of the dissertation.

When the dissertation committee feels that the final document has met reasonable expectations in terms of quality, the student, in consultation with his or her adviser, should set up the defense meeting with his or her full committee.

Committee members are to receive copies of the dissertation at least **three weeks** prior to the defense. The Graduate Advising Office must also receive the Shuttle Sheet Request form signed by the committee members three weeks prior to the defense. This sheet indicates that all committee members have received the dissertation and can attend the defense (See Shuttle Sheet Request form). The defense date, including the title, abstract, author, time and location of defense, is advertised at this time

During the dissertation defense, the student presents an overview of his or her study, focusing on the results and analysis. Members of the committee will ask questions of the student related to the study. The dissertation chair will facilitate the question and answer portion of the defense and will determine whether time and conditions permit additional questions from guests. Deliberations regarding the dissertation defense are conducted immediately following the presentation and question and answer period. The committee members conduct these deliberations exclusively while the student and guests are not in the room. Following the deliberations, the committee shares its decision regarding the student's performance:

- Passing the dissertation and oral defense with minor corrections
- Deferral of judgment until substantive changes are made and approved by the dissertation chair
- Failure of oral defense and/or dissertation. The student cannot pass the dissertation and oral defense if more than one member of the committee judges that either is unacceptable.

After the student has passed the oral defense and the five-member committee has approved the document, the student completes the document according to the WVU Electronic Thesis Document format (See www.libraries.wvu.edu/theses/index.htm). The Dissertation Defense form must be submitted to Char Allen inn Center for Advising and Records within 24 hours of the defense.

Each student is required to complete his or her prospectus meeting and **dissertation defense within five years of being admitted to candidacy**. If the student fails to meet this requirement, he or she will be removed from the doctoral program.

Early Childhood Education

We are not currently accepting applicants into this program. Please contact Jane.cardi@mail.wvu.edu or dale.niederhauser@mail.wvu.edu for information.

Masters Degree Program in Early Childhood Education

The Department of Curriculum & Instruction/Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies offers opportunities for graduate study and research leading to a Master's degree in Early Childhood Education. This program is designed to prepare individuals to be well informed about Early Childhood Education. The primary purposes of the graduate program in this department is to provide increased knowledge, skills,

and professional competencies related to Early Childhood Education. Students in the program will work with faculty who contribute as educational scholars to the profession at university, state, and national levels. Additionally, the program offers opportunities to explore global initiatives, culturally responsive teaching, and current educational research in Early Childhood Education.

For more information, please visit our website at http://cils.wvu.edu/.

Curriculum and Instruction/Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies

Department Chair,
Dale S. Niederhauser

This program is not currently accepting applications. Please contact dale.niederhauser@mail.wvu.edu for information.

ADMISSION REQUIREMENTS

All applicants for the Early Childhood Education program must:

- Submit WVU Graduate application for admission
- Hold a Bachelor's degree with a 2.75 GPA or above
- Submit a one-page goal statement. The Statement should be of professional experiences, career ambitions and will be considered a writing sample.

REQUIREMENTS FOR GRADUATION:

- Completion of all coursework, with C or better in all departmental coursework
- On-line application to graduate (Contact Advising Center for additional information)
- 3.0 GPA.

Master of Arts

MAJOR REQUIREMENTS

C&I 612	Early Childhood Curriculum	3
C&I 614	Early Childhood Instruction	3
C&I 616	Early Childhood Program Development and Evaluation	3
C&I 617	Language Arts in Early Childhood	3
C&I 618	Storytelling in Early Childhood	3
Child Development Electives		6
Special Education Electives		3
Curriculum & Instruction Electives		6
Total Hours		**30**

Education

Degree Offered

- Doctor of Philosophy with a major in Education

Nature of the Program

The Doctor of Philosophy degree program provides a rigorous course of study along with mentored research and teaching experiences to enable students to achieve core educational objectives as scholars in four specialization areas: Educational Leadership and Policy; Learning, Instructional Design and Technology; Curriculum, Literacy and Cultural Studies; Human Development and Family Studies. Several thematic contexts, critical to our state and region, provide the platform for the study of education and achieving the competencies in each specialization area. These unique themes include: the rural nature of our state context, the poverty many children and families live in throughout the region, and the cultural context of Appalachia, all as they impact education. The research interests of faculty members participating in the program address aspects of these themes. Research and scholarly experiences prepare graduates who plan to pursue a research agenda in higher education or in educational research/policy centers.

The primary objective is to prepare students who have both breadth and depth of knowledge in education and who will (a) conduct original research and (b) contribute to the production and development of knowledge in the discipline. Candidates who achieve these objectives will be well prepared to serve as members of academic communities at peer institutions of higher education, and researchers and leaders in educational research and policy centers.

The educational objectives of the program are clearly connected to the mission of West Virginia University; specifically, conducting focused research and providing professional service to the state and nation based on that research.

1. Students will become conversant with the Theoretical Foundations of Education in the areas of Educational Leadership, Policy, Learning, Instructional Design, Technology, Curriculum, Literacy, Cultural Studies and Human Development and Family Studies, plus the Nature of Inquiry.
2. Students will demonstrate research competencies sufficient to design, conduct, analyze, and report qualitative, quantitative, and mixed-methods research on topics of relevance to their area of emphasis.
3. Students will demonstrate teaching competencies sufficient to design, deliver, monitor, and revise instruction at the undergraduate and/or graduate level on content relevant to their area of emphasis.
4. Students will demonstrate intellectual competencies sufficient to deliver instruction, conduct research, and provide service at the level of a university faculty member in specializations of relevance to their area of emphasis.
5. Students will propose, conduct, analyze, and write a dissertation composed of original research that makes a contribution to the literature in their area of emphasis.

ADMISSION REQUIREMENTS

Applicants for the **Interdisciplinary Ph.D. in Education must:**

- Submit WVU Graduate application for admission, found at http://grad.wvu.edu. **Applications must be dated, completed and received in the department by 12-2-2015.**   (Be sure to upload all required information, see below)
- Have earned at least a **3.0** undergraduate GPA and at least a **3.5** graduate GPA.
- Submit scores for the Graduate Record Examination (GRE), 320 new score (before 2011) or 1,100 (combined score of verbal and quantitative sections) **or** Miller Analogies test (MAT) of at least 410-416.
- International applicants must provide **TOEFL** scores of at least 80 (internet version), 213 (computer-based), or 550 (paper-based) 79-80 iBT **or** IELTS 6.5.

    Note:**Test scores may be no older than five years**.

Required Supplemental Materials to be uploaded to the WVU application:

Applicants are required to upload the following information to their on-line graduate application. **Incomplete applications will not be reviewed.**

- Scholarly writing samples that demonstrate the student's academic writing skills.
- Three letters of recommendation that clearly attest to the students ability to be a successful doctoral student. (Addressed to Interdisciplinary Ph.D. in Education Review Committee).
- A Statement of Purpose, discussing research goals and how they can be met through the Interdisciplinary Ph.D. program. We expect students to indicate scholarly connections with CEHS faculty and how specific faculty might help them achieve their research goals. Applicants must identify the Area of Emphasis for their PhD program. The connection between the applicants interests and the area of emphasis should be clearly related to the statement of purpose.

1. HO88 – Educational Leadership & Policy Studies
2. HO89 – Learning, Instructional Design & Technology
3. HO90 – Curriculum, Literacy & Culture Studies
4. HO95 – Human Development & Family Studies

- A face-to-face, phone, or Internet-based video interview may be required as part of the application process before students are formally admitted.

Doctor of Philosophy

MAJOR REQUIREMENTS

Theoretical Foundations Core		12
SCFD 781	Nature of Inquiry 1	1
SCFD 782	Nature of Inquiry 2	1
SCFD 783	Nature of Inquiry 3	1
Select one of the following Educational Leadership and Policy Area of Emphasis courses:		
EDLS 603	Principles of Educational Leadership	
HIED 650	Higher Education Administration	
HIED 652	Assessment in Higher Education	
Select one of the following Learning, Instructional Design and Technology Area of Emphasis courses:		
EDP 700	Psychological Foundations of Learning	

EDP 640	Instructional Design	
EDP 740	Principles of Instruction	
Select one of the following Curriculum, Literacy, and Cultural Studies Area of Emphasis courses:		
SCFD 600	Sociology of Education	
SCFD 620	Philosophy of Education	
SCFD 640	History of American Education	
C&I 701	Curriculum Development	
C&I 707	Theories, Models and Research of Teaching	
C&I 709	Curriculum Theories	
Select one of the following Human Development and Family Studies Area of Emphasis courses:		
HDFS 793	Families and Human Development in Educational Contexts	
HDFS 793	Family Issues/Problems	
HDFS 793	Human Development within Families	
HDFS 793	Families/Human Development in Rural and Appalachian Contexts	
Research Core		15
EDP 612	Introduction to Research	
EDP 613	Statistical Methods 1	
SCFD 615	Qualitative Research Methods	
EDP 614	Statistical Methods 2	
Survey Research Elective [*]		
Mentored Research/Teaching Practica		12
Research (6 credit hours)		
Teaching (6 credit hours)		
Area of Emphasis coursework		30
Total Hours		**72**

[*]   Elective should be related to research methodology employed for dissertation. This may require that the specific course not be specified on program of study, but rather identified during prospectus development.

Admission to Candidacy and Dissertation Requirements

Program Features

The Doctor of Philosophy degree program provides a rigorous course of study along with mentored research and teaching experiences to enable students to achieve core educational objectives as scholars in four specialization areas, as described below. Several thematic contexts, critical to our state and region, provide the platform for the study of education and achieving the competencies in each area. These unique themes include: the rural nature of our state context, the poverty many children and families live in throughout the region, and the cultural context of Appalachia, all as they impact education. The research interests of faculty members participating in the program address aspects of these themes.

Mentored Research/Teaching Practica. All students will complete a two-semester mentored research practicum [6 hours] that involves guidance from a faculty mentor who represents the student's area of emphasis. This will result in a research document submitted for presentation and/or publication. This mentored research practicum is separate from and prior to the dissertation research project.

All students will complete a two-semester mentored teaching practicum [6 hours] that involves guidance from a faculty mentor who represents the student's area of emphasis. This will result in an implemented and evaluated course design.

All students will attend periodic seminars designed to support their efforts and allow for discussion of those efforts with other doctoral students and faculty members mentoring those efforts throughout the Mentored Research and Mentored Teaching practica.

Candidacy and Dissertation Requirements. All students will be asked to show mastery of their area of interest by successful completion of the Candidacy Examination (preliminary comprehensive) designed by the student's doctoral committee using guidelines developed by each area of emphasis faculty.

After students pass their comprehensive exams, they will complete a dissertation proposal/prospectus that will provide an in-depth overview of their research ideas for their dissertation. Upon approval of the dissertation proposal by (a) their doctoral committee and (b) the institutional review board, students will conduct their dissertation research. The faculty will assess the dissertation and its oral defense and will recommend approval based upon the quality of work. **You have five years to complete your dissertation** upon being admitted as a doctoral candidate.

EDUCATIONAL LEADERSHIP AND POLICY AREA OF EMPHASIS

Area of Emphasis courses	6
Additional courses selected by the student and the doctoral committee	24
Total Hours	**30**

LEARNING, INSTRUCTIONAL DESIGN AND TECHNOLOGY AREA OF EMPHASIS

Area of Emphasis courses	6
Additional courses selected by the student and the doctoral committee	24
Total Hours	**30**

CURRICULUM, LITERACY AND CULTURAL STUDIES AREA OF EMPHASIS

Area of Emphasis courses	6
Additional courses selected by the student and the doctoral committee	24
Total Hours	**30**

HUMAN DEVELOPMENT AND FAMILY STUDIES AREA OF EMPHASIS

Area of Emphasis courses	6
Additional courses selected by the student and the doctoral committee	24
Total Hours	**30**

Educational Leadership/Public School Administration

CURRENTLY NOT ACCEPTING NEW STUDENTS INTO THIS PROGRAM.

The Educational Leadership – Public Education Administration Program at West Virginia University prepares individuals for leadership positions in elementary, secondary, and post-secondary educational institutions. Although most of our students pursue administrative careers at the secondary-education level, some prepare for college or university research, teaching, and/or staff positions.

Degrees Offered

- Master of Arts (M.A.) in education leadership/public school administration
  - Doctor of Education (Ed.D.) in educational leadership/public school administration

Certifications Offered

- Certification for elementary and secondary school principals
- Certification for instructional supervisors
- Certification for superintendents

FACULTY

CHAIR

- Dale S. Niederhauser - Ph.D. (University of Utah)
  Foundations of Education, Educational Technology, Elementary Education: Early Childhood

PROFESSOR

- Helen Hazi - Ph.D. (University of Pittsburgh)
  Public Education Administration

We are not currently accepting applicants into this program.

We are not currently accepting applicants into this program.

NOTE: Our program is currently not accepting new applications due to oversubscription. You may join the waiting list by visiting: http://edls.wvu.edu/public_ed/doc-program

Elementary Education

Degree Offered

- Master of Arts with a major in Elementary Education

Masters Degree Program in Elementary Education

The Department of Curriculum & Instruction/Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies offers opportunities for graduate study, teacher certification, and research leading to a Master's degree with initial certification. This program is designed to prepare individuals to become educators in the classroom. The primary purposes of the graduate programs in this department are to provide increased knowledge, skills, and professional competencies for licenses related to each specialty area in the department (listed below). Each program has met national accreditation standards. Students in the programs will work with faculty who contribute as educational scholars to the profession at university, state, and national levels. Additionally, the programs offer opportunities to explore technology, global initiatives, and culturally responsive teaching, and current educational research in your selected program.

For more information, please visit our website at http://cils.wvu.edu/.

Curriculum and Instruction/Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies

Program Coordinator,
Matt Anderson
matthew.anderson@mail.wvu.edu
Allen Hall, 606B

Department Chair,
Dale S. Niederhauser

Admission Requirements

All applicants for the Elementary Education must:

- Submit WVU Graduate application for admission
- Hold a Bachelor's degree with a 2.75 GPA or above
- Submit a **one-page goal statemen**t. The Statement should be of professional experiences, career ambitions and will be considered a writing sample
- **Test requirements**: Praxis Core Academic Skills for Educators. Student can take the combined test # 5751 this will include the 3 section (reading #5712, writing # 5722 & math #5732) **or** Graduate Records Examination. Testing may be waived with a score of 26 on ACT, 1125 on SAT or MA degree.
- TOEFL (international students) - TOEFL score must be at least 550 (paper) or 213 (computer) 79-80 iBT or IELTS 6.5.

Note: Students should contact the Center for Student Advising and Records for a transcript analysis.

PROGRAM REQUIREMENTS

- Transcript analysis required (Center for Student Advising and Records)
- C&I 602 must be taken in the first or second semester after admission into the program. "B" or better is required in C&I 602.
- State back ground check and a current TB test are required before entering a public school classroom (student teaching permit)
- 3.0 GPA in graduate coursework with "C" or better in all graduate courses
- No more than twelve hours at a 400-level plus student teaching may count toward a thirty-six hour master's degree.
- Application for transient credit for graduate courses taken at other institutions must be approved by the adviser and the Assistant Dean for Student Services.
- Student teaching application must be completed **1 year** in advance. Student teaching application are available in the Center for Student Advising and Records. (room 710) or www.advising/cehs/wvu.edu
- Elective courses must be approved by the adviser prior to enrollment.
- Portfolio demonstrating teaching standards, to be completed in C&I 680
- Passing scores on the Praxis II in content area, due one full semester before student teaching
- Principles of Teaching and Learning (PLT) test, due at the end of the program.
- Completion of 125 hours of field experiences (embedded in the program)

REQUIREMENTS FOR GRADUATION:

- Completion of all coursework, with **C** or better in all graduate coursework
- On-line application to graduate (Contact Advising Center for additional information)

- 3.0 GPA.

Master of Arts in Elementary Education
MAJOR REQUIREMENTS

C&I 602	Curriculum and Teaching Principles	3
C&I 631	Mathematics in the Elementary School	3
C&I 640	Science in the Elementary School	3
C&I 650	Social Studies in the Elementary School	3
C&I 689	Cultural Diversity in the Classroom	3
EDP 600	Educational Psychology	3
RDNG 603	Literature in Elementary School	3
RDNG 621	Reading and Writing Instruction in Elementary Schools	3
RDNG 640	Instructing Students Who Have Reading Difficulties	3
RDNG 641	Problems in Reading	3
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 601	Academic Interventions for Special Needs	3
Total Hours		**36**

Suggested Plan of Study

First Semester	Hours
C&I 602	3
EDP 600	3
RDNG 621	3
	9
Second Semester	**Hours**
SPED 500	3
RDNG 640	3
C&I 689	3
	9
Third Semester	**Hours**
SPED 601	3
RDNG 603	3
RDNG 641	3
	9
Fourth Semester	**Hours**
C&I 631	3
C&I 640	3
C&I 650	3
	9

Total credit hours: 36

NOTE: In addition to the 36 degree requirements, testing requirements (Praxis 2 & PLT), subject area content courses (45 hours), and one semester of student teaching with a capstone course (2 hours) are required for Program Completion and WV Certification.

Elementary Education/Advanced

Degree Offered

- Master of Arts with a major in Elementary Education/Advanced

MASTER OF ARTS - ELEMENTARY EDUCATION/ADVANCED PROGRAM

The Department of Curriculum & Instruction/Literacy Studies, Social and Cultural Foundations, and Educational Leadership Studies offers a **Masters of Arts** designed for individuals who hold a **teaching license** in elementary education and in need of a Master degree. This program provides increased knowledge, skill, and competence for teachers working with children in elementary school settings. The program consists of 36 credit hours and

is offered **online** through the Electronic Campus of the Southern Regional Education Board (SREC). **All students pay in-state tuition rates** for courses offered through the Electronic Campus regardless of residency. **This degree leads to a Master of Arts only and will NOT lead to teaching certification.**

Students will complete thirty-six hours of **online** coursework that is designed to broaden their professional knowledge and teaching skills. All student in the "Elementary Education/Advanced Program", must purchase a subscription for LiveText. Courses in this program require students to submit class assignments and final portfolio into LiveText.

ADMISSION REQUIREMENTS

All applicants for the Elementary Education/Advance online program must:

- Submit WVU Graduate application for admission
- Hold a Bachelor's degree with a 2.75 GPA or above
- **Attach a copy of your Teaching Certification**.
- Submit a one-page goal statement. The Statement should be of professional experiences, career ambitions and will be considered a writing sample.

PROGRAM REQUIREMENTS:

All students in the Elementary Education/Advanced Program, must purchase a subscription for LiveText. Students submit class assignments and their final portfolio to LiveText. Please contact your adviser for information.

REQUIREMENTS FOR GRADUATION:

- Completion of all coursework, with C or better in all graduate coursework
- On-line application to graduate (Contact Advising Center for additional information)
- 3.0 GPA.

Master of Arts

MAJOR REQUIREMENTS

Minimum GPA of 3.0 required

Minimum grade of C or higher is required in all graduate coursework		
C&I 605	Twenty-First Century Teaching and Learning	3
(first class in program)		
C&I 604	School Curriculum	3
C&I 630	Problem Solving in Math	3
C&I 631	Mathematics in the Elementary School	3
(offered only in the Fall semester)		
C&I 639	Science Research and Technology Ethics	3
C&I 648	Science/Technology: Society Perspectives	3
C&I 757	Social Studies Curriculum Development, K-12	3
SCFD 640	History of American Education	3
RDNG 621	Reading and Writing Instruction in Elementary Schools	3
C&I 680	Technology Integration Through Capstone Experience	3
(C&I 680 last course in program and only offered in the Spring semester)		
Electives		6
Total Hours		**36**

Recommend Electives - Consult with your adviser:

C&I 615	Issues in Holocaust Education	3
C&I 645	Global Climate Change	3
C&I 646	Science: Native American Views	3
C&I 647	Science and Mathematics Applications for Nutrition and Energy Content	3
C&I 649	History/Philosophy of Science	3
C&I 687	Advanced Teaching Strategies	3
C&I 688	Classroom Organization and Management	3

C&I 689	Cultural Diversity in the Classroom	3
RDNG 622	Content Area Literacy Instruction	3
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 601	Academic Interventions for Special Needs	3

Note: All students in the Elementary Education/Advanced Program must purchase a subscription for LiveText. Courses in this program require students to submit class assignment and final portfolio into LiveText. Please contact department for additional information.

Suggested Plan of Study

First Semester	Hours
C&I 604	3
C&I 605	3
RDNG 621	3
	9
Second Semester	**Hours**
SCFD 640	3
C&I 648	3
C&I 630	3
	9
Third Semester	**Hours**
C&I 630	3
C&I 639	3
C&I 757	3
	9
Fourth Semester	**Hours**
Electives	6
C&I 680	3
	9

Total credit hours: 36

Elementary Education/MDS

Degree Offered

- Master of Arts with a major in Elementary Education/MDS

Five-Year Teacher Education Program Purposes and Goals

The goals of the WVU Five-Year Teacher Education Program describe the qualifications that represent the end result of teacher preparation. Graduates of the program should have these qualifications:

- Possess a commitment to, and the skills for, life-long learning
- Be effective communicators
- Recognize that teaching is a professional, moral, and ethical enterprise with well-developed ethical frameworks which facilitate effective teaching
- Be a facilitator of learning for all students
- Possess in-depth knowledge of both pedagogy and content, as well as an integrated understanding of these two important knowledge areas
- Be reflective practitioners who can thoughtfully apply knowledge and experience to practice and critically examine choices
- Be aware of, and have respect for, human diversity
- Be liberally educated: value and integrate knowledge from a wide variety of fields, be creative and open to new ideas, and be able to act constructively in a world characterized by technological, cultural, and societal diversity and change.

The teacher education program is a five-year program culminating in two degrees which are awarded simultaneously: a baccalaureate degree in the content area and a master's degree in education. The program meets standards for teacher licensure in West Virginia.

Program requirements are subject to change based upon State Department and accreditation agency policies.

Five-Year Teacher Education Program for Elementary Education

All students in the Five-Year Teacher Education program in Elementary Education prepare to teach multi-subjects in grades K–6. They must also select at least one of the following specialization options for additional licensure endorsements;

Specializations for Grades 5–9

- French
- General Science
- English
- Mathematics
- Social Studies
- Spanish

or

Specializations in:

- Special education, multi-categorical
- Pre-Kindergarten and Kindergarten

Year 5 Interns:

Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Note: Interns are restricted from <u>ALL</u> graduate and or resident assistantships during the semester in which they complete their practical experience (semester 9 /student teaching). No work responsibilities may interfere with the Interns' commitment to meeting the program requirements.

Admission into the graduate year (year 5 of the Five-year program)

Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Criteria for successful admission into the graduate year are documented in the year 4 portfolio, including :

- demonstrated competency in clinical placement(s)
- earned a minimum GPA of 2.75 with "C" or better in all professional education courses
- passed all Praxis II content specialization test(s)
- completed a minimum of 128 undergraduate hours
- completed all five-year undergraduate program course work

Note: In the event that a pre-service teacher does not complete the aforementioned requirements by the established deadline of May 15 of year 4, s(he) must submit a "program interruption form" to request a one-year program interruption to address the deficiencies that prompted the interruption. In the event that the deficiencies are fulfilled by July 31 of that same year, the student may submit a written appeal to be reinstated. (Refer to Program Student Handbook for details, "Milestone Two")

Master of Arts
MAJOR REQUIREMENTS

A minimum GPA of 3.0 is required in all Graduate Level Requirements

A grade of C or higher is required in all Graduate Level Requirements		
EDUC 600	Teacher as Researcher	3
EDUC 601	Context of Education	3
EDUC 602	Professional Identity: Teacher as Leader	3
EDUC 612	Professional Internship/Technology Applications	12
EDUC 687	Instructional Practicum/Technology Application	3
Graduate Electives (500, 600 or 700 level)		6
Total Hours		**30**

Suggested Plan of Study

Fifth Year

Fall	Hours Spring	Hours
EDUC 600	3 EDUC 601	3
EDUC 612	12 EDUC 602	3
	EDUC 687	3
	Electives	6
	15	**15**

Total credit hours: 30

Higher Education Administration

Degrees Offered

The Higher Education Administration program is designed to enhance leadership skills and prepare students for executive, administrative (business administration, academic affairs, and student affairs), academic support, and faculty positions.

- Master of Arts (M.A.) in higher education administration
- Doctor of Education (Ed.D.) in higher education administration

Online Masters (M.A.) - Higher Education Administration

The master's program is designed to enhance leadership skills and prepare students for administration positions within college and university settings.

FEATURES

- Online graduate program with options for face-to-face courses
- Part-time or full-time enrollment options
- Courses can be taken from any geographic location
- Flexible program of study (two to eight years to complete the program)
- Advanced learning platform technologies (synchronous and asynchronous)
- Courses taught by full-time faculty and administrators

CAREER PLACEMENT

- Alumni have been placed in executive, administrative (business administration, academic affairs, and student affairs), and faculty support positions.
- Higher education administrators held about 161,800 jobs in 2012 and employment in this area is projected to grow 15% from 2012 to 2022, faster than the average for all occupations.
- Higher education administrators work at colleges, universities, community colleges, and technical schools.

DOCTOR OF EDUCATION (Ed.D.) - HIGHER EDUCATION ADMINISTRATION

FEATURES:

1. Hybrid graduate program with options for online and face-to-face courses
2. Part-time or full-time enrollment options
3. Flexible program of study
4. Synchronous online courses
5. Courses taught by full-time faculty and professors

CAREER PLACEMENT:

- Executive, administrative (business administration, academic affairs, and student affairs) and faculty support placements.
- Higher education administrators held about 161,800 jobs in 2012 and employment in this area is projected to grow 15% from 2012 to 2022, faster than the average for all occupations.
- Faculty Positions
- Policy Positions
- Higher education administrators work at colleges, universities, community colleges, and technical schools.

FACULTY

CHAIR

- Dale S. Niederhauser - Ph.D. (University of Utah)
  Foundations of Education, Educational Technology

PROFESSOR EMERITUS

- Ernest Goeres - Ph.D. (University of Iowa)

ASSISTANT PROFESSOR

- Nathan Sorber - Ph.D. (Pennsylvania State University)
  Higher Education Administration

TEACHING ASSISTANT PROFESSOR

- Erin McHenry Sorber - Ph.D. (Pennsylvania State University)
  Educational Policy Studies, Administration, Planning, and Social Policy

ADJUNCT ASSISTANT PROFESSORS

- John (Jay) Cole - Ph.D. (University of Michigan)
- Steve Robinson - Ph.D. (University of Alabama)

ADJUNCT

- Gabriel St. Leger - Ed.D. (West Virginia University)

Acceptance Policy

Applicants for a master of arts degree in higher education administration (HIED) and/or Ed.D. must comply with the WVU requirements for admission to graduate studies, the requirements of the College of Education and Human Services, and those that the HIED program has specified. Admission to all programs is contingent on an assessment of complete official transcripts, including all higher education work attempted, and other evidence the faculty may deem necessary in order to judge students' prospective success within the graduate program.

If applicants meet the minimum requirements, they may be invited to an on-campus interview. Students will receive official notification of acceptance or rejection within one month of the interview. All students accepted into the program will receive information about their assigned adviser and guidance on the development of a personalized program of study.

ADMISSION PROCEDURES - MASTER OF ARTS

Applicants are required to submit an online application, found at http://grad.wvu.edu. The Higher Education Administration Program admits students to the Master of Arts Program on a continuous basis The following must accompany the online application:

1. **Graduate Records Examination (GRE) or Miller Analogies Test (MAT) Scores.** Request that GRE or MAT scores be sent to WVU, code 5904. Test dates must be within five years of the date of application. Applicants must score at or above the 50th percentile on the GRE or MAT examinations. In addition, all applicants whose native language is not English must have a minimum score of 93 on the internet-based test (IBT) TOEFL examination.

2. **Personal statement, describing past work experience and goals for graduate study in higher education administration**. Please upload under personal statement section to the supplemental materials page of the application.

3. **Resume.** Please upload your resume/vitae to the supplemental materials page of the application.

4. **Complete contact information and description of professional relationship for three references**. Please upload these under "other" section of the supplemental materials page. **Do not** submit references contacts under the "recommendations" section of the online application..

5. **Two scholarly writing samples**. Please upload under "other" section of the supplemental materials page.

ADMISSIONS PROCEDURE - DOCTOR OF EDUCATION (Ed.D.)

A committee of HIED faculty reviews applications to the program. Admissions materials include:

1. **GRE/TOEFL:** Applicants for the HIED Ed.D. need to earn 300 or better (new scoring) or 1000 or better (old scoring) on the Graduate Record Exam (GRE). In addition, students must score at the 50th percentile on the analytical writing section. International students must score a minimum of 550 on the paper version of the TOEFL or a minimum of 213 on the computer version of the TOEFL. Test scores submitted for consideration must be no more than five years old.

2. **Personal resume/vita:** Applicants must provide a chronological history of their education and experience in a vita. The vita should offer evidence that the applicant has appropriate professional experience that would support the goals and expectations of the program.

3. Goals statement: Each applicant must provide a clear statement of professional goals. This statement should be well written, and it should clearly indicate how the applicant's goals fit with the program. Particular consideration will be given to goal statements that clearly demonstrate that the student has researched the program and faculty and knows how program offerings and faculty expertise meet his or her specific interests and needs.

4. Writing sample: All Ed.D. applicants must provide a writing sample with their application. The writing sample should provide clear evidence of the applicant's writing ability as well as his or her ability to engage in research and/or scholarships.

5. Three current letters of reference: All Ed.D. applicants must provide three letters of reference that explicitly address the applicant's potential as a doctoral student. References should know of the applicant's academic performance and potential.

INTERVIEW: The HIED Ed.D. admissions committee may also request an interview to seek additional information in order to judge potential for success in the program**.**

RESIDENCY: The purpose of residency is to provide doctoral students with intellectual experiences and scholarly engagement with faculty and peers in the HIED program and the Curriculum and Instruction/Literacy Studies Department. In order to achieve residency, students must engage in meaningful work with faculty within the Department beyond their coursework. This work may include collaborative research, grant writing, team teaching, or assisting in university service. Residency plans must be negotiated with and approved by the student's adviser in consultation with the student's program committee. The adviser and committee must receive evidence of plan completion.

Curriculum Requirements

A minimum GPA of 3.25 is required in all major courses.

A grade of C or higher is required in all major courses.		
HIED 649	Contemporary Issues in Higher Education	3
Required Common Core (12 credit hours)		
HIED 650	Higher Education Administration	3
HIED 648	History of American Higher Education	3
HIED 651	College Student Development	3
Required Research Core Courses* (6 credit hours)		
EDP 612	Introduction to Research	3
EDP 617	Program Evaluation (Required Research Core Courses* (6 credit hours))	3
Sample of HIED/EDLS ELECTIVES (6 credit hours)		
HIED 651	College Student Development	3
HIED 760	Curriculum Development and Reform in Higher Education	3
Sample of Support Area Courses (9 credit hours)		
EDP 600	Educational Psychology	3
EDP 640	Instructional Design	3
C&I 789	Teaching in Higher Education	3
Required Capstone Experience (3 credit hours)		
HIED 693C	Special Topics	3
Total Hours		**36**

*or other advisor-approved research methods courses

Doctor of Education
MAJOR REQUIREMENTS

HIED Courses		15
HIED 693	Leadership and Organizations	
HIED 693	Diversity Issues in Higher Education	
HIED 648	History of American Higher Education	
HIED 650	Higher Education Administration	
HIED 651	College Student Development	
HIED Specialization Strands		12
(Select 12 credits from one of the following strands)		
Curriculum & Assessment and Academic Affairs		
HIED 760	Curriculum Development and Reform in Higher Education	
HIED 751	Academic Affairs Roles	

HIED 753	Adult and Continuing Education	
HIED 652	Assessment in Higher Education	
HIED 759	Assessment Research in Higher Education	
College Access, Transition, and Success		
HIED 653	College Students and Courts	
HIED 654	College Student Affairs	
HIED 762	College Student Research in Higher Education	
HIED 753	Adult and Continuing Education	
HIED 652	Assessment in Higher Education	
HIED 759	Assessment Research in Higher Education	
Administration, Organizations, and Policy		
HIED 656	Higher Education Budget and Planning	
HIED 655	Institutional Advancement	
HIED 657	Community College Leadership	
HIED 752	Governance of Higher Education	
HIED 755	Higher Education Law	
HIED 756	Higher Education Finance	
Individualized Studies in Higher Education Administration		
This individualized plan of study will be developed in consultation with the student's advisor/program committee		
Additional HIED Electives		12
Research		15
Students are required to take 15 credits of research coursework, including 6 credits each of graduate-level qualitative and quantitative methods and 3 credits of additional advanced research. Courses may be taken outside CEHS as necessitated by the student in consultation with the student's advisor. Note: With permission of advisor, students pursuing advanced quantitative methodologies may replace the second qualitative course with a fourth advanced quantitative course.		
Cognate Minor		12
These 12 credits pertaining to the individual student's interests and goals must come from graduate-level courses outside the HIED program in consultation with the student's advisor.		
Internships		6
Students are required to take 6 credits of a supervised practicum in higher education administration by enrolling in HIED 785. This internship experience should be conducted after the Qualifying Examination (DQE), and allow the student to apply theoretical concepts to practical situations. The internship experience is designed by the student in consultation with the advisor and proposed supervisor.		
Dissertation		15
12 credits of dissertation work		
Total Hours		**87**

Higher Education Curriculum and Teaching

Degree Offered:

• Master of Arts with a major in Higher Education Curriculum and Teaching

Students earn a Master of Arts Degree in Education with a major in Higher Education Curriculum and Teaching. This program provides knowledge and skills in curriculum development, teaching strategies, education psychology, and a general background in higher education. Electives allow students to continue to improve their knowledge of their particular content area of interest at the graduate level. The flexibility of the program lends itself to certified teachers, instructors in higher education, international students, students interested in pursuing a doctoral program, and others who are interested in teaching in higher education. .

Admission Requirements

All applicants for the Higher Education Curriculum and Teaching must:

• Submit WVU Graduate application for admission

• Hold a Bachelor's degree with a 2.75 GPA or above

• Submit a one-page goal statement, describing professional experiences and career ambitions. it will be considered a writing sample

• Test requirements: Praxis Core Academic Skills for Educators # 5712 (reading, writing & math) or Graduate Records Examination (GRE). Testing may be waived with a score of 26 on ACT, 1170 on SAT or MA degree

- TOEFL scores (required of international students) must be at least 550 (paper) or 213 (computer) 79-80 iBT or IELTS 6.5.

Master of Arts

MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

A grade of C or higher is required in all graduate coursework		
C&I 701	Curriculum Development	3
C&I 687	Advanced Teaching Strategies	3
C&I 789	Teaching in Higher Education	3
EDP 600	Educational Psychology	3
or EDP 700	Psychological Foundations of Learning	
SCFD 620	Philosophy of Education	3
or SCFD 640	History of American Education	
CEHS Electives		9
Additional Electives		12
Total Hours		**36**

Suggested Plan of Study

First Semester	Hours
C&I 701	3
C&I 687	3
EDP 600 or 700	3
	9
Second Semester	**Hours**
C&I 789	3
SCFD 640	3
RDNG 624 (Elective)	3
	9
Third Semester	**Hours**
C&I 648	3
RDNG 627	3
HEID 651 (Elective)	3
	9
Fourth Semester	**Hours**
RDNG 726 (Elective)	3
C&I 707 (Elective)	3
C&I 708 (Elective)	3
	9

Total credit hours: 36

Literacy Education

Degree Offered

- Master of Arts

The Department of Curriculum and Instruction/Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies offers opportunities for graduate study, teacher certification, and research, leading to a degree in Masters of Art in Reading. Our program is designed for educators and other professionals with educational leadership responsibilities. The primary purposes of the Reading program are to provide increased knowledge, skills, research, and professional competencies for licensure. Our program faculty work with national accreditation standards for each of their programs. Our faculty contribute to the profession at university, state, and national levels of professional involvement. The experiences available through the reading program involve effective technology, diversity, global initiatives, culturally responsive teaching, and effective faculty who are leaders in research, teaching and service in their scholarly work.

For more information, please visit our website at http://cils.wvu.edu/.

Curriculum and Instruction/Literacy Studies, Social & Cultural Foundations, Educational Leadership Studies

Dale S. Niederhauser, Chair

602 Allen Hall

The primary purpose of the Master's program in Literacy Education is to provide increased knowledge, skill, and competence for teachers or those who work in the field. The program contains a number of related options for emphasis within its framework, making it flexible enough to meet a wide variety of needs. Advanced teacher certification requirements are based on the West Virginia Department of Education's Policy 5100 Approval of Educational Personnel Preparation Programs and Policy 5202 Licensure of Professional/Paraprofessional Personnel.

Program Objectives:

Our program aligns with the International Literacy Association's *Standards for Reading Professionals* (2010) and prepares candidates for careers in preK to adult learning contexts.

- Graduates will understand the theoretical and evidence-based foundations of reading and writing processes and instruction and apply this knowledge.
- Graduates will use instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support student learning in reading and writing.
- Graduates will use a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction.
- Graduates will create and engage their students in literacy practices that develop awareness, understanding, respect, and valuing differences in our society.
- Graduates will create a literate environment that fosters reading and writing by integrating foundational knowledge instruction practices approaches and methods curriculum materials and the appropriate use of assessments.
- Graduates will recognize the importance of, demonstrate, and facilitate professional learning and leadership as a career long effort and responsibility.
- Graduates will be prepared to serve as Reading Specialists, Reading Interventionist, and Literacy Coaches/Supervisors in underserved area of our state.
- Graduates will demonstrate professionalism by serving as leaders and advocates within professional organizations and local communities state holders.

International Reading Association. (2010). *Standards for reading professionals.* Newark, DE: Author.

FACULTY
CHAIR
- Dale S. Niederhauser - Ph.D. (University of Utah)
PROGRAM DIRECTOR
- Allison Swan Dagen - Ph.D
ASSOCIATE PROFESSORS
- Aimee L. Morewood - Ph.D. (University of Pittsburgh)
- Steven Rinehart - Ph.D
- Charline Barnes Rowland - Ed.D. (Virginia Polytechnic Institute and State University)

REQUIREMENTS

Professionals with successful teaching experience at the elementary, secondary, or college level may elect to enroll in these courses to increase their competencies as reading teachers, and/or literacy coaches to keep themselves informed of the latest trends and developments in reading education, or to prepare for positions of greater responsibility. Students who plan to enter the teaching field may also wish to enroll in these courses to increase their overall skills and knowledge.

Admission requirements for the Master in Literacy Studies include:

- Bachelor's degree.
- Minimum grade point average of 2.75 on all previous completed coursework.
- Applicants may also be asked to provide a writing sample and/or references
- Applicants must also meet general university graduate program requirements. Additional review is then completed by the specific program faculty who recommend for or against admission. (Neither GRE nor MAT scores are required for specific program admission.)

Master of Arts
DEGREE REQUIREMENTS

Degree Requirements

A minimum GPA of 3.0 is required in all courses.	
A C or higher is required in all graduate coursework	
Major Requirements	36
Total Hours	**36**

MAJOR REQUIREMENTS

Required Courses

RDNG 621	Reading and Writing Instruction in Elementary Schools	3
RDNG 622	Content Area Literacy Instruction	3
RDNG 624	Foundations of Literacy	3
RDNG 627	Developing Reading Interests	3
RDNG 640	Instructing Students Who Have Reading Difficulties	3
RDNG 641	Problems in Reading	3
RDNG 682	Assessment of Reading Ability	3
RDNG 685	Practicum	6
RDNG 726	Literacy Leadership	3
Electives		6
Total Hours		**36**

Suggested Plan of Study

First Semester	Hours
RDNG 621	3
RDNG 624	3
RDNG 640	3
	9
Second Semester	**Hours**
RDNG 682	3
RDNG 622	3
RDNG 627	3
	9
Third Semester	**Hours**
RDNG 641	3
RDNG 685	6
	9
Fourth Semester	**Hours**
RDNG 726	3
Electives	6
	9

Total credit hours: 36

- Students must complete six or more hours in reading within two years after admission (probationary or regular), or admission will be invalidated and the student will be required to reapply.
- The course requirements in the program lead to reading specialist certification for qualified candidates, assuming candidates meet other state certification requirements.
- Passing scores on the Praxis II in reading content area

Secondary Education

Degree Offered:

- Master of Arts with a major in Secondary Education

The Department of Curriculum and Instruction/Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies offers opportunities for graduate study, teacher certification, and research leading to a Master of Arts degree and coursework and certification in a specialty area. These programs are specially designed to prepare individuals to become educators in the classroom. The primary purposes of the graduate programs in this department are to provide increased knowledge, skills, and professional competencies for licenses related to each specialty area in the department (listed below). Each program has met national accreditation standards. Students in the programs will work with faculty who contribute as educational scholars to the profession at university, state, and national levels. Additionally, the programs offer opportunities to explore technology, global initiatives, and culturally responsive teaching, and current educational research in your selected program.

For more information, please visit our website at http://cils.wvu.edu/.

Curriculum and Instruction/Literacy Studies, Social and Cultural Foundations, Educational Leadership Studies

Program Coordinator,
Matt Anderson
matthew.anderson@mail.wvu.edu
Allen Hall, 606B

Department Chair,
Dale S. Niederhauser

Admission Requirements

All applicants for the Elementary Education must:

- Submit WVU Graduate application for admission
- Hold a Bachelor's degree with a 2.75 GPA or above
- Submit a one-page goal statement. The Statement describes professional experiences and career ambitions and will be considered a writing sample
- Test requirements: Praxis Core Academic Skills for Educators. Student can take the combined test # 5751 which includes 3 sections (reading #5712, writing # 5722 & math #5732) **or** the Graduate Records Examination. Testing may be waived with a score of 26 on ACT, 1170 on SAT or MA degree.
- TOEFL scores required for international students must be at least 550 (paper) or 213 (computer) 79-80 iBT or IELTS 6.5.

Note: Students should contact the Center for Student Advising and Records for a transcript analysis.

Master of Arts with Areas of Emphasis/Certification Areas in:

- Biology Education (p. 310)
- Chemistry Education (p. 310)
- English Education (p. 311)
- General Science Education (p. 311)
- Math Education (p. 311)
- Physics Education (p. 311)
- Social Studies Education (p. 311)
- World Language Education (p. 311)

MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

A grade of C or higher is required in all graduate coursework		
C&I 602	Curriculum and Teaching Principles (minimum grade of B)	3
C&I 688	Classroom Organization and Management	3
C&I 689	Cultural Diversity in the Classroom	3
EDP 600	Educational Psychology	3
RDNG 622	Content Area Literacy Instruction	3
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 601	Academic Interventions for Special Needs	3

Area of Emphasis coursework	15
Total Hours	**36**

SUGGESTED PLAN OF STUDY

First Semester	**Hours**
C&I 602	3
EDP 600	3
	6
Second Semester	**Hours**
SPED 500	3
undefined	
RDNG 622	3
	6
Third Semester	**Hours**
SPED 601	3
Complete Praxis 2	
AoE course	3
	6
Fourth Semester	**Hours**
C&I 688	3
C&I 689	3
AoE course	3
	9
Fifth Semester	**Hours**
AoE courses	9
Complete PLT	
	9

Total credit hours: 36

OTHER REQUIREMENTS

- State back ground check and a current TB test are required before entering a public school classroom (student teaching permit)
- Student teaching application must be completed **1 year** in advance. Student teaching application are available in the Center for Student Advising and Records. (room 710)
- Portfolio demonstrating teaching standards,completed in C&I 680
- Passing scores on the Praxis II in content area, due **one full semester** before student teaching
- Principles of Teaching and Learning (PLT) test, due at the end of the program.
- Completion of 125 hours of field experiences (embedded in the program).

BIOLOGY EDUCATION AREA OF EMPHASIS

C&I 644	Science in the Secondary School	3
C&I 648	Science/Technology: Society Perspectives	3
C&I 649	History/Philosophy of Science	3
Electives	400 or higher from content area, 600 or higher level from C&I pedagogical content area courses including C&I 639, C&I 645, C&I 646, C&I 647, Concept Mapping and Cognition, Seminar in STEM Education	6
Total Hours		**15**

CHEMISTRY EDUCATION AREA OF EMPHASIS

C&I 644	Science in the Secondary School	3
C&I 648	Science/Technology: Society Perspectives	3
C&I 649	History/Philosophy of Science	3

Electives	400 or higher from content area, 600 or higher level from C&I pedagogical content area courses including C&I 639, C&I 645, C&I 646, C&I 647, Concept Mapping and Cognition, Seminar in STEM Education	6
Total Hours		**15**

ENGLISH EDUCATION AREA OF EMPHASIS

SCFD 640	History of American Education	3
or SCFD 620	Philosophy of Education	
C&I 424	Approaches to Teaching Language	3
C&I 425	Approaches to Teaching Literature	3
C&I 624	Advanced Methods in English Education	3
Elective	Courses in C&I or English or other departments, depending upon student/advisor agreement	3
Total Hours		**15**

GENERAL SCIENCE EDUCATION AREA OF EMPHASIS

C&I 644	Science in the Secondary School	3
C&I 648	Science/Technology: Society Perspectives	3
C&I 649	History/Philosophy of Science	3
Electives	400 or higher from content area, 600 or higher level from C&I pedagogical content area courses including C&I 639, C&I 645, C&I 646, C&I 647, Concept Mapping and Cognition, Seminar in STEM Education	6
Total Hours		**15**

MATH EDUCATION AREA OF EMPHASIS

SCFD 620	Philosophy of Education	3
or SCFD 640	History of American Education	
C&I 634/434	Mathematics in the Secondary School	3
C&I 632/432	Research in Math Curriculum and Technology	3
Electives	400 and 500 level from content area or related education courses counted as electives with advisor approval	6
Total Hours		**15**

PHYSICS EDUCATION AREA OF EMPHASIS

C&I 644	Science in the Secondary School	3
C&I 648	Science/Technology: Society Perspectives	3
C&I 649	History/Philosophy of Science	3
Electives	400 or higher from content area, 600 or higher level from C&I pedagogical content area courses including C&I 639, C&I 645, C&I 646, C&I 647, Concept Mapping and Cognition, Seminar in STEM Education	6
Total Hours		**15**

SOCIAL STUDIES EDUCATION AREA OF EMPHASIS

SCFD 640	History of American Education	3
or SCFD 620	Philosophy of Education	
C&I 654	Social Studies in the Secondary School	3
C&I 757	Social Studies Curriculum Development, K-12	3
Electives	400 and 500 level from content area or related education courses counted as electives with advisor approval	6
Total Hours		**15**

WORLD LANGUAGE EDUCATION AREA OF EMPHASIS

SCFD 620	Philosophy of Education	3
or SCFD 640	History of American Education	

LANG 421	The Teaching of Foreign Languages	3
Electives	Taken at the graduate level in foreign language, C&I, and /or related field with advisor approval	9
Total Hours		**15**

Secondary Education/Advanced

The Department of Curriculum & Instruction/Literacy Studies, Social and Cultural Foundations, and Educational Leadership Studies offers the following **Masters of Arts in Secondary Education/Advanced ONLINE programs.** These programs are designed for individuals who hold a teaching license in secondary education. **This program will NOT lead to a certification.**

- **Secondary Education/Advanced Specialization (AOE: HO75)**
- **Secondary Education/Advanced with SCIENCE emphasis (AOE: HO76)**
- **Secondary Education/Advanced with SOCIAL STUDIES emphasis (AOE: HO77)**

These programs are designed for individuals who hold **a teaching license** in secondary education. This program provides increased knowledge, skill, and competence for teachers working with children in secondary education and the specialization areas. The program consists of 36 credit hours and is offered **online** through the Electronic Campus of the Southern Regional Education Board (SREC). **All students pay in-state tuition rates** for courses offered through the Electronic Campus regardless of residency. Students will complete thirty-six hours of online coursework that is designed to broaden their professional knowledge and teaching skills.

ADMISSION REQUIREMENTS

All applicants for the Secondary Education/Advanced online program must:

- Submit WVU Graduate application for admission
- Hold a Bachelor's degree with a 2.75 GPA or above
- Attach a copy of your Teaching Certification.
- Submit a one-page goal statement describing professional experiences and career ambitions. It will be considered a writing sample.

Master of Arts
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required.

A grade of C or higher is required in all graduate coursework.		
C&I 605	Twenty-First Century Teaching and Learning	3
C&I 604	School Curriculum	3
SCFD 640	History of American Education	3
C&I 680	Technology Integration Through Capstone Experience	3
Area of Emphasis coursework		24
Total Hours		**36**

Note: All students must purchase a subscription for LiveText. Courses in this program require students to submit class assignments and the final portfolio using LiveText. Please contact the department for additional information.

SECONDARY EDUCATION/ADVANCED/SCIENCE AREA OF EMPHASIS

C&I 639	Science Research and Technology Ethics	3
C&I 645	Global Climate Change	3
C&I 648	Science/Technology: Society Perspectives	3
C&I 649	History/Philosophy of Science	3
Electives		12
Total Hours		**24**

Recommend Electives - Consult with your advisor:

C&I 615	Issues in Holocaust Education	3
C&I 630	Problem Solving in Math	3
C&I 645	Global Climate Change	3

C&I 639	Science Research and Technology Ethics	3
C&I 647	Science and Mathematics Applications for Nutrition and Energy Content	3
C&I 646	Science: Native American Views	3
C&I 648	Science/Technology: Society Perspectives	3
C&I 649	History/Philosophy of Science	3
C&I 687	Advanced Teaching Strategies	3
C&I 688	Classroom Organization and Management	3
C&I 689	Cultural Diversity in the Classroom	3
RDNG 622	Content Area Literacy Instruction	3
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 601	Academic Interventions for Special Needs	3

SECONDARY EDUCATION/ADVANCED/SOCIAL STUDIES AREA OF EMPHASIS

C&I 757	Social Studies Curriculum Development, K-12	3
C&I 656	Challenges in Teaching History	3
C&I 615	Issues in Holocaust Education	3
C&I 656	Challenges in Teaching History	3
Total Hours		**12**

Secondary Education/English

Degree Offered:

- Master of Arts with a major in Secondary Education/English

Five-Year Teacher Education Program Purposes and Goals

The goals of the WVU Five-Year Teacher Education Program describe the qualifications that represent the end result of teacher preparation. Graduates of the program should have these qualifications:

- Possess a commitment to, and the skills for, life-long learning
- Be effective communicators
- Recognize that teaching is a professional, moral, and ethical enterprise with well-developed ethical frameworks which facilitate effective teaching
- Be a facilitator of learning for all students
- Possess in-depth knowledge of both pedagogy and content, as well as an integrated understanding of these two important knowledge areas
- Be reflective practitioners who can thoughtfully apply knowledge and experience to practice and critically examine choices
- Be aware of, and have respect for, human diversity
- Be liberally educated: value and integrate knowledge from a wide variety of fields, be creative and open to new ideas, and be able to act constructively in a world characterized by technological, cultural, and societal diversity and change.

The teacher education program is a five-year program culminating in two degrees which are awarded simultaneously: a baccalaureate degree in the content area and a master's degree in education. The program meets standards for teacher licensure in West Virginia.

Program requirements are subject to change based upon State Department and accreditation agency policies.

Year 5 Interns:
Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Note: Interns are restricted from ALL graduate and or resident assistantships during the semester in which they complete their practical experience (semester 9 /student teaching). No work responsibilities may interfere with the Interns' commitment to meeting the program requirements.

Admission into the graduate year (year 5 of the Five-year program)

Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Criteria for successful admission into the graduate year are documented in the year 4 portfolio, including :

- demonstrated competency in clinical placement(s)
- earned a minimum GPA of 2.75 with "C" or better in all professional education courses
- passed all Praxis II content specialization test(s)
- completed a minimum of 128 undergraduate hours
- completed all five-year undergraduate program course work

Note: In the event that a pre-service teacher does not complete the aforementioned requirements by the established deadline of May 15 of year 4, s(he) must submit a "program interruption form" to request a one-year program interruption to address the deficiencies that prompted the interruption. In the event that the deficiencies are fulfilled by July 31 of that same year, the student may submit a written appeal to be reinstated. (Refer to Program Student Handbook for details, "Milestone Two")

Master of Arts
MAJOR REQUIREMENTS

A minimum GPA of 3.0 is required in all Graduate Level Requirements

A grade of C or higher is required in all Graduate Level Requirements		
EDUC 600	Teacher as Researcher	3
EDUC 601	Context of Education	3
EDUC 602	Professional Identity: Teacher as Leader	3
EDUC 612	Professional Internship/Technology Applications	12
EDUC 687	Instructional Practicum/Technology Application	3
Graduate Electives (500, 600 or 700 level)		6
Total Hours		**30**

Suggested Plan of Study

Fifth Year

Fall	Hours	Spring	Hours
EDUC 600	3	EDUC 601	3
EDUC 612	12	EDUC 602	3
		EDUC 687	3
		Electives	6
	15		**15**

Total credit hours: 30

Secondary Education/Mathematics

Degree Offered:

- Master of Arts with a major in Secondary Education/Mathematics

Five-Year Teacher Education Program Purposes and Goals

The goals of the WVU Five-Year Teacher Education Program describe the qualifications that represent the end result of teacher preparation. Graduates of the program should have these qualifications:

- Possess a commitment to, and the skills for, life-long learning
- Be effective communicators
- Recognize that teaching is a professional, moral, and ethical enterprise with well-developed ethical frameworks which facilitate effective teaching
- Be a facilitator of learning for all students
- Possess in-depth knowledge of both pedagogy and content, as well as an integrated understanding of these two important knowledge areas
- Be reflective practitioners who can thoughtfully apply knowledge and experience to practice and critically examine choices
- Be aware of, and have respect for, human diversity
- Be liberally educated: value and integrate knowledge from a wide variety of fields, be creative and open to new ideas, and be able to act constructively in a world characterized by technological, cultural, and societal diversity and change.

The teacher education program is a five-year program culminating in two degrees which are awarded simultaneously: a baccalaureate degree in the content area and a master's degree in education. The program meets standards for teacher licensure in West Virginia.

Program requirements are subject to change based upon State Department and accreditation agency policies.

Year 5 Interns:
Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Note: Interns are restricted from <u>ALL</u> graduate and or resident assistantships during the semester in which they complete their practical experience (semester 9 /student teaching). No work responsibilities may interfere with the Interns' commitment to meeting the program requirements.

Admission into the graduate year, year 5 of the Five-year program

Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Criteria for successful admission into the graduate year are documented in the year 4 portfolio, including :

- demonstrated competency in clinical placement(s)
- earned a minimum GPA of 2.75 with "C" or better in all professional education courses
- passed all Praxis II content specialization test(s)
- completed a minimum of 128 undergraduate hours
- completed all five-year undergraduate program course work

Note: In the event that a pre-service teacher does not complete the aforementioned requirements by the established deadline of May 15 of year 4, s(he) must submit a "program interruption form" to request a one-year program interruption to address the deficiencies that prompted the interruption. In the event that the deficiencies are fulfilled by July 31 of that same year, the student may submit a written appeal to be reinstated. (Refer to Program Student Handbook for details, "Milestone Two")

Master of Arts
MAJOR REQUIREMENTS

A minimum GPA of 3.0 is required in all Graduate Level Requirements

A grade of C or higher is required in all Graduate Level Requirements		
EDUC 600	Teacher as Researcher	3
EDUC 601	Context of Education	3
EDUC 602	Professional Identity: Teacher as Leader	3
EDUC 612	Professional Internship/Technology Applications	12
EDUC 687	Instructional Practicum/Technology Application	3
Graduate Electives (500, 600 or 700 level)		6
Total Hours		**30**

Suggested Plan of Study

Fifth Year

Fall	Hours	Spring	Hours
EDUC 600	3	EDUC 601	3
EDUC 612	12	EDUC 602	3
		EDUC 687	3
		Electives	6
	15		**15**

Total credit hours: 30

Secondary Education/MDS

Degree Offered:

- Master of Arts with a major in Secondary Education/MDS

Five-Year Teacher Education Program Purposes and Goals

The goals of the WVU Five-Year Teacher Education Program describe the qualifications that represent the end result of teacher preparation. Graduates of the program should have these qualifications:

- Possess a commitment to, and the skills for, life-long learning
- Be effective communicators
- Recognize that teaching is a professional, moral, and ethical enterprise with well-developed ethical frameworks which facilitate effective teaching
- Be a facilitator of learning for all students
- Possess in-depth knowledge of both pedagogy and content, as well as an integrated understanding of these two important knowledge areas
- Be reflective practitioners who can thoughtfully apply knowledge and experience to practice and critically examine choices
- Be aware of, and have respect for, human diversity
- Be liberally educated: value and integrate knowledge from a wide variety of fields, be creative and open to new ideas, and be able to act constructively in a world characterized by technological, cultural, and societal diversity and change.

The teacher education program is a five-year program culminating in two degrees which are awarded simultaneously: a baccalaureate degree in the content area and a master's degree in education. The program meets standards for teacher licensure in West Virginia.

Program requirements are subject to change based upon State Department and accreditation agency policies.

Five-Year Teacher Education Program for Secondary Education

All students in the Five-Year Teacher Education program in Secondary Education choose from the following specialization options for licensure;

Specializations for the secondary MDS are

- Biology/General Science
- Chemistry/General Science
- Physics/General Science

Year 5 Interns:
Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as **Interns**. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Note: Interns are restricted from <u>ALL</u> graduate and or resident assistantships during the semester in which they complete their practical experience (semester 9 /student teaching). No work responsibilities may interfere with the Interns' commitment to meeting the program requirements.

Admission into the graduate year (year 5 of the Five-year program)

Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as **Interns**. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Criteria for successful admission into the graduate year are documented in the year 4 portfolio, including :

- demonstrated competency in clinical placement(s)
- earned a minimum GPA of 2.75 with "C" or better in all professional education courses
- passed all Praxis II content specialization test(s)
- completed a minimum of 128 undergraduate hours
- completed all five-year undergraduate program course work

Note: In the event that a pre-service teacher does not complete the aforementioned requirements by the established deadline of May 15 of year 4, s(he) must submit a "program interruption form" to request a one-year program interruption to address the deficiencies that prompted the interruption. In the event that the deficiencies are fulfilled by July 31 of that same year, the student may submit a written appeal to be reinstated. (Refer to Program Student Handbook for details, "Milestone Two")

Master of Arts
MAJOR REQUIREMENTS

A minimum GPA of 3.0 is required in all Graduate Level Requirements

A grade of C or higher is required in all Graduate Level Requirements

EDUC 600	Teacher as Researcher	3

EDUC 601	Context of Education	3
EDUC 602	Professional Identity: Teacher as Leader	3
EDUC 612	Professional Internship/Technology Applications	12
EDUC 687	Instructional Practicum/Technology Application	3
Graduate Electives (500, 600 or 700 level)		6
Total Hours		**30**

Suggested Plan of Study

Fifth Year

Fall	Hours	Spring	Hours
EDUC 600	3	EDUC 601	3
EDUC 612	12	EDUC 602	3
		EDUC 687	3
		Electives	6
	15		**15**

Total credit hours: 30

Secondary Education/Social Studies

Degree Offered:

- Master of Arts with a major in Secondary Education/Social Studies

Five-Year Teacher Education Program Purposes and Goals

The goals of the WVU Five-Year Teacher Education Program describe the qualifications that represent the end result of teacher preparation. Graduates of the program should have these qualifications:

- Possess a commitment to, and the skills for, life-long learning
- Be effective communicators
- Recognize that teaching is a professional, moral, and ethical enterprise with well-developed ethical frameworks which facilitate effective teaching
- Be a facilitator of learning for all students
- Possess in-depth knowledge of both pedagogy and content, as well as an integrated understanding of these two important knowledge areas
- Be reflective practitioners who can thoughtfully apply knowledge and experience to practice and critically examine choices
- Be aware of, and have respect for, human diversity
- Be liberally educated: value and integrate knowledge from a wide variety of fields, be creative and open to new ideas, and be able to act constructively in a world characterized by technological, cultural, and societal diversity and change.

The teacher education program is a five-year program culminating in two degrees which are awarded simultaneously: a baccalaureate degree in the content area and a master's degree in education. The program meets standards for teacher licensure in West Virginia.

Program requirements are subject to change based upon State Department and accreditation agency policies.

Five-Year Teacher Education Program for Secondary Education

All students in the Five-Year Teacher Education program in Secondary Education choose from the following specialization options for licensure;

Year 5 Interns:
Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Note: Interns are restricted from ALL graduate and or resident assistantships during the semester in which they complete their practical experience (semester 9 /student teaching). No work responsibilities may interfere with the Interns' commitment to meeting the program requirements.

Admission into the graduate year (year 5 of the Five-year program)

Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Criteria for successful admission into the graduate year are documented in the year 4 portfolio, including:

- demonstrated competency in clinical placement(s)
- earned a minimum GPA of 2.75 with "C" or better in all professional education courses
- passed all Praxis II content specialization test(s)
- completed a minimum of 128 undergraduate hours
- completed all five-year undergraduate program course work

Note: In the event that a pre-service teacher does not complete the aforementioned requirements by the established deadline of May 15 of year 4, s(he) must submit a "program interruption form" to request a one-year program interruption to address the deficiencies that prompted the interruption. In the event that the deficiencies are fulfilled by July 31 of that same year, the student may submit a written appeal to be reinstated. (Refer to Program Student Handbook for details, "Milestone Two")

Master of Arts
MAJOR REQUIREMENTS

A minimum GPA of 3.0 is required in all Graduate Level Requirements

A grade of C or higher is required in all Graduate Level Requirements

EDUC 600	Teacher as Researcher	3
EDUC 601	Context of Education	3
EDUC 602	Professional Identity: Teacher as Leader	3
EDUC 612	Professional Internship/Technology Applications	12
EDUC 687	Instructional Practicum/Technology Application	3
Graduate Electives (500, 600 or 700 level)		6
Total Hours		**30**

Suggested Plan of Study

Fifth Year

Fall	Hours	Spring	Hours
EDUC 600	3	EDUC 601	3
EDUC 612	12	EDUC 602	3
		EDUC 687	3
		Electives	6
	15		**15**

Total credit hours: 30

Secondary Education/World Languages

Degree Offered:

- Master of Arts with a major in Secondary Education/World Languages

Five-Year Teacher Education Program Purposes and Goals

The goals of the WVU Five-Year Teacher Education Program describe the qualifications that represent the end result of teacher preparation. Graduates of the program should have these qualifications:

- Possess a commitment to, and the skills for, life-long learning
- Be effective communicators
- Recognize that teaching is a professional, moral, and ethical enterprise with well-developed ethical frameworks which facilitate effective teaching
- Be a facilitator of learning for all students
- Possess in-depth knowledge of both pedagogy and content, as well as an integrated understanding of these two important knowledge areas
- Be reflective practitioners who can thoughtfully apply knowledge and experience to practice and critically examine choices
- Be aware of, and have respect for, human diversity
- Be liberally educated: value and integrate knowledge from a wide variety of fields, be creative and open to new ideas, and be able to act constructively in a world characterized by technological, cultural, and societal diversity and change.

The teacher education program is a five-year program culminating in two degrees which are awarded simultaneously: a baccalaureate degree in the content area and a master's degree in education. The program meets standards for teacher licensure in West Virginia.

Program requirements are subject to change based upon State Department and accreditation agency policies.

Five-Year Teacher Education Program for Secondary Education

All students in the Five-Year Teacher Education program in Secondary Education choose from the following specialization options for licensure;

Specializations for Grades 5-Adult in world languages are:

- French
- German (9-Adult)
- Spanish

Year 5 Interns:
Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Note: Interns are restricted from <u>ALL</u> graduate and or resident assistantships during the semester in which they complete their practical experience (semester 9 /student teaching). No work responsibilities may interfere with the Interns' commitment to meeting the program requirements.

Admission into the graduate year (year 5 of the Five-year program)

Having successfully completed semester 8, students are then recommended to be officially accepted into the graduate year prior to being enrolled in semesters 9 and 10 of the Five-Year Teacher Education Program. Upon entrance to semester 9 as a graduate student, students are referred to as *Interns*. Students will receive notification of acceptance in a letter from the Five-Year Teacher Program Office.

Criteria for successful admission into the graduate year are documented in the year 4 portfolio, including :

- demonstrated competency in clinical placement(s)
- earned a minimum GPA of 2.75 with "C" or better in all professional education courses
- passed all Praxis II content specialization test(s)
- completed a minimum of 128 undergraduate hours
- completed all five-year undergraduate program course work

Note: In the event that a pre-service teacher does not complete the aforementioned requirements by the established deadline of May 15 of year 4, s(he) must submit a "program interruption form" to request a one-year program interruption to address the deficiencies that prompted the interruption. In the event that the deficiencies are fulfilled by July 31 of that same year, the student may submit a written appeal to be reinstated. (Refer to Program Student Handbook for details, "Milestone Two")

Master of Arts
MAJOR REQUIREMENTS

A minimum GPA of 3.0 is required in all Graduate Level Requirements

A grade of C or higher is required in all Graduate Level Requirements		
EDUC 600	Teacher as Researcher	3
EDUC 601	Context of Education	3
EDUC 602	Professional Identity: Teacher as Leader	3
EDUC 612	Professional Internship/Technology Applications	12
EDUC 687	Instructional Practicum/Technology Application	3
Graduate Electives (500, 600 or 700 level)		6
Total Hours		**30**

Suggested Plan of Study

Fifth Year

Fall	Hours	Spring	Hours
EDUC 600	3	EDUC 601	3
EDUC 612	12	EDUC 602	3

	EDUC 687	3
	Electives	6
15		**15**

Total credit hours: 30

Department of Special Education

Degrees Offered

- Master of Arts
- Doctor of Education

The graduate program leading to the M.A. in special education is designed to prepare master teachers of infants, toddlers, children, and adults with exceptionalities and to provide initial training for the preparation of future supervisors and administrators of public-school special education programs. The College of Education and Human Services awards the doctor of education, which may include an emphasis in special education. The Ed.D. with emphasis in special education has two program options: the program option in personnel preparation in special education is designed to prepare graduates for roles as faculty members and researchers, while the program option in school leadership for special education is designed to prepare graduates for roles as administrators or supervisors in public schools or community agencies. The program also prepares professionals for emerging roles associated with interdisciplinary services to persons requiring special education or disability services.

Certification and/or Master's Degree Program Options

- Autism Spectrum Disorders (autism grades K–6 and/or 5–adult)
- Early Childhood Special Education (preschool special needs grades pre-K–K)
- Gifted Education (gifted grades 1–12)
- Low Vision/Blindness (visual impairments grades Pre-K–adult)
- Multicategorical Special Education (intellectual disabilities, ;earning disabilities, behavior disorders grades K–6 and/or 5–adult)
- Severe/Multiple Disabilities (severe disabilities grades K–adult)
- Special Education (includes area of emphasis in Applied Behavior Analysis* with other areas of emphasis coming soon)

THE CERTIFICATION AND MASTER'S DEGREE PROGRAMS ARE OFFERED ENTIRELY ONLINE ACROSS THE U.S. AND IN APPROVED INTERNATIONAL LOCATIONS.

Applicants interested in one of the program areas should review the detailed information provided at http://specialed.wvu.edu/ or contact sped@mail.wvu.edu for a brochure and application or an update on availability of specific courses.

NOTE: The titles of teaching certification categories may differ in other states, so prospective students should contact the state education agency to determine whether a program will qualify them for certification in that state.

Doctoral Program Option

- Personnel Preparation in Special Education
- School Leadership in Special Education (on moratorium and not admitting new students

THE DOCTORAL DEGREE PROGRAM IN SPECIAL EDUCATION IS OFFERED ENTIRELY ONLINE ACROSS THE U.S.; IT IS NOT CURRENTLY AVAILABLE IN INTERNATIONAL LOCATIONS.

Applicants interested in the doctoral program should review the detailed information provided at http://specialed.wvu.edu/ or contact sped@mail.wvu.edu for a brochure and application or an update on availability of specific courses.

FACULTY
CHAIR

- Barbara L. Ludlow - Ed.D. (West Virginia University)

PROFESSORS

- Elizabeth A. Dooley - Ed.D. (West Virginia University)
  Mental Retardation, Learning Disabilities, Multicultural/Education
- Barbara L. Ludlow - Ed.D. (West Virginia University)
  Severe/Multiple Disabilities, Early Intervention/Early Childhood Special Education, Personnel Preparation

ASSOCIATE PROFESSOR

- Ann M. Richards - Ph.D. (University of Arizona)
  Multicategorical Special Education, Transition, Law and Policy Issues

ASSISTANT PROFESSOR

- Sara A. Aronin - Ph.D. (University of Central Florida)
  Instructional Technology, Inclusive Education in Math and Science
- Kimberly K. Floyd - Ph.D. (Old Dominion University)
  Preschool Special Needs, Inclusive Preschools, Assistive Technology
- Sung Hee Lee - Ph.D. (University of Washington)
  Reading Interventions, Inclusive Education, Bilingual Special Education
- Michael R. Mayton - Ph.D. (Tennessee Technological University)
  Positive Behavior Support, Applied Behavior Analysis, Autism Spectrum Disorders
- Naomi L. Rahn - Ph.D. (University of Minnesota)
  Early Intervention/Early Childhood Special Education, Early Language and Literacy Interventions, Response to Intervention

TEACHING ASSISTANT PROFESSOR

- Christan Grygas-Coogle - Ph.D. (Florida State University)
  Early Intervention, Early Childhood Special Education, Assessment
- Melissa B. Hartley - Ph.D. (San Diego State University)
  High Incidence Disabilities, Personnel Preparation, Program Evaluation

CLINICAL ASSISTANT PROFESSOR

- Bernard C. Jones - Ed.D. (West Virginia University)
  Inclusive Education, Cultural Competency, Emotional/Behavioral Disorders

CLINICAL INSTRUCTOR

- Michael O'Neal - M. Ed. (Texas A&M University – Commerce)
  Instructional Technology, Inclusive Education in Math and Science, Emotional/Behavioral Disorders

PROFESSORS EMERITI

- Thomas P. Lombardi - Ph.D.
- Diane T. Woodrum - Ed.D.

ASSISTANT PROFESSOR EMERITUS

- Luise B. Savage - Ed.D.

Application

All applications must comply with University, College, Department, and Program requirements. Teacher certification requirements are based on the West Virginia Department of Education's Policy 5100 and Approval of Educational Personnel Preparation Programs and Policy 5202 Licensure of Professional/Paraprofessional Personnel.

Admission to the Master of Arts (M.A.) in Special Education Program

All individuals seeking certification and/or a degree must be admitted into the special education program. Admission is granted on a competitive basis. Applications that are incomplete or fail to provide supporting documentation are NOT considered. Applicants who meet all regular admission criteria are NOT automatically admitted to the program since applications are ranked and accepted in order until all available program openings have been filled. Applicants who meet criteria for provisional are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY requirement be waived. Students are admitted as regular, provisional, or non-degree students as follows:

REGULAR STATUS

The individual who meets all admission requirements is granted regular status as a certification and/or degree-seeking student.

- An earned baccalaureate degree from a regionally accredited college or university with a minimum grade point average of 3.0 (regular admission)
- Passing scores on a nationally standardized test of academic ability within a 10–year period (150 on GRE or 400 on MAT or 156/162/150 on PRAXIS Core)
- Recommendation for graduate study completed by a course instructor
- Permission for field and clinical experiences form signed by a public school system
- Other requirements specific to each program option

OTHER REQUIREMENTS IN CERTIFICATION PROGRAMS

The individual must also meet these additional requirements:

- PRAXIS Core Academic Skills for Educators (Core) passing scores: 156 on 5712, 162 on 5722, 150 on 5732 within 10–year period or certification through the National Board for Professional Teaching Standards (NBPTS) or prior certification in some area of education or a master's degree from an accredited institution or a composite score of 25 (26 if enhanced) on the American College Test (ACT) or a score of 1035 (1125 if re-entered) on the Scholastic Achievement Test)
- Prior certification in education (only in some programs): autism spectrum disorders: early childhood education (K–4) or elementary education (K–6 or K–8) (for K–6 option only); gifted education: early childhood education or elementary education; or secondary education with emphasis in biology, chemistry, English, general science, mathematics, physics, reading education or specialist, and/or social studies; multi-categorical special education: early childhood education (K–4) or elementary education (K–6 or K–8) (for K–6 option only).

PROVISIONAL STATUS

In some circumstances, individuals may be granted provisional status in the program if they meet ALL other admission requirements and fit into one of these categories:

- An earned baccalaureate degree from a regionally accredited college or university with a minimum grade point average of 2.75 (provisional admission);
- An earned baccalaureate degree from a regionally accredited college or university with a minimum grade point average of 2.50 IF prior successful completion of a Master's degree in education or a closely related area with GPA of 3.25 (provisional admission);
- An earned baccalaureate degree from a regionally accredited college or university with a minimum grade point average of 2.5 IF prior successful completion of a graduate TEACHER certification program of 12 credits minimum with GPA of 3.25 (provisional admission).
- An earned baccalaureate degree from a regionally accredited college or university with a minimum grade point average of 2.5 IF prior successful completion of an undergraduate program with earned GPA of 3.00 in the final 30 credits (provisional admission).

Provisional status allows the student an opportunity to remediate deficiencies in grade point average or other requirements in order to achieve regular status. Deficiencies must be made up by the deadline set in the admission letter.

NON-DEGREE STATUS

The individual who has earned a baccalaureate degree from a regionally accredited college or university but who does not seek certification or a master's degree may be admitted as a non-degree student. This status allows the student to take courses for additional endorsement to the professional teaching certificate and/or for professional development and/or personal growth.

ADDITIONAL REQUIREMENTS FOR INTERNATIONAL STUDENTS

The individual who is not a native speaker of English must also meet these requirements:

- Test of English as a Foreign Language (TOEFL) score of 550 or higher (paper) or 215 or higher (computer) or 80 or higher (Internet)
- Personal interview and writing sample to document fluency needed for success in field experiences associated with many courses.

NOTE: The certification and Master's degree programs are online programs, and international students cannot obtain a visa for study in the U.S. but may participate while residing in their own home countries.

APPLICATION SUBMISSION PROCESS

Applications for admission beginning **FALL** semester: **DUE AUGUST 1**

Applications for admission beginning **SPRING** semester: **DUE JANUARY 1**

Applications for admission beginning **SUMMER** semester: **DUE MAY 1**

Decisions for admission are send as soon as all applications materials are received and processed.

Admission to the Doctoral Program (Ed.D.) in Special Education

All individuals seeking the doctoral degree emphasis in special education must be admitted into the special education program.

REGULAR STATUS

The individual who meets all of the following admission requirements is granted regular status as a degree-seeking student.

- An earned baccalaureate degree from a regionally accredited college or university with a minimum grade point average of 3.0
- An earned master's degree from a regionally accredited college or university in special education or disability services with a minimum grade point average of 3.25

- Prior teaching certification in some area of special education (for personnel preparation option) or in special education or disability services (for school leadership option)
- Submission of Graduate Record Examination or Miller Analogies Test scores in support of potential for success in doctoral-level study: MAT score of 400 (sixty-third percentile) or GRE score of 1,000 total (verbal plus quantitative) with minimum score of 450 verbal (prior scale) or 300 total (verbal + quantitative) with minimum score of 155 (current scale) and within a five-year period
- Two years of documented experience providing direct service to children or adults with exceptionalities in special education and/or disability services either in instruction or intervention (for personnel preparation option) or in instruction or intervention, therapeutic interventions, assessment or behavior management, administration or supervision, or other activities (for school leadership option)
- Three letters of reference addressing the candidate's past academic performance and qualities which would make the person suitable for doctoral-level study (contact program for specifications for reference letters)
- A personal goal statement illustrating a lifelong commitment to excellence in special education and/or disability studies and articulating career goals focused on a leadership position in personnel preparation in special education or school leadership for special education
- An academic writing sample documenting knowledge of special education and/or disability services and skill in organizing and expressing ideas and citing current sources in the professional literature

Additional requirements for international students are as follows:

- TOEFL score of 550 or higher (paper) or 215 or higher (computer) or 80 or higher (internet)

Applicants who meet the criteria specified above will also be required to undergo:

- A personal interview demonstrating communication and interpersonal skills
- A proctored writing sample to verify ability to express ideas with logic, clarity, and correct grammar

PROVISIONAL STATUS

Admission to the program with PROVISIONAL student status may be considered if openings are available:

--applicants who do not have a Master's degree in Special Education but meet all other criteria may be admitted but may need to complete additional graduate courses in special education to address deficiencies
--applicants who have only private school teaching experience but meet all other criteria may be admitted but may need to complete a practicum experience in a public school setting during the program

Admissions criteria are based on qualifications associated with academic success in doctoral study as well as qualifications that candidates applying for leadership positions are expected to have when seeking employment as faculty at colleges and universities (personnel preparation option) or administrators and supervisors of special education or disability services programs (school leadership option). In recognition of the fact that no single criterion is an adequate predictor of satisfactory completion of a program of study or subsequent success in a professional career, faculty endorses multiple criteria for admission to this doctoral program. Requirements for admission are weighed using a +, 0, - system in judging each applicant and are considered necessary but not sufficient eligibility criteria for admission.

Applicants who meet all criteria are NOT automatically granted admission to the program. Admission is contingent upon number of applicants, number of current students, and availability of graduate faculty.

Application Submission and Review Process

Each applicant will submit all application materials and supporting documentation by the following dates:

Requests for **PRIORITY* admissio**n beginning FALL semester: **DUE JANUARY 15**
Requests for **LATE* admission** beginning FALL semester: **DUE APRIL 15**

Soon after the deadline, the Doctoral Admission Committee will review application files and meet to discuss applicants. Decisions will be based on applicant qualifications, program openings, and available faculty.

ALL applicants will be notified of the committee's decision in writing by the following dates:

Decisions for PRIORITY* admissions for FALL semester: **SENT MARCH 1**
Decisions for LATE* admissions for FALL semester: **SENT JUNE 1**

Disability Studies

http://cedwvu.org/students/certificate.php

E-mail: mzeppuhar@hsc.wvu.edu

The WVU Center for Excellence in Disabilities, in collaboration with the Department of Special Education, offers a graduate certificate program in disability studies. The certificate in disability studies prepares students, as citizens, to cope with the complex economic and social issues related to

disabilities by learning directly from persons with disabilities and their families. Students will be trained to enter the workforce with the knowledge, skills, and experience needed to provide state-of-the-art services to persons with disabilities and their families and to interact with co-workers who have disabilities.

Through the certificate program, students collaborate with and learn from experts in the disability arena, including pediatric neurologists, geneticists, speech-language pathologists, audiologists, special education leaders, social workers, physical and occupational therapists, and others. These professionals, who are experienced clinicians, researchers, and educators, provide didactic instruction, clinical instruction, and mentorship to students.

Students will also have the opportunity to gain leadership and management skills that prepare them to enter the workforce with increased professional independence. The certificate program exposes students to social justice issues, Appalachian concerns, principles of practice, and cultural diversity while developing their expertise in rural practice environments. As part of the program, students have the opportunity to observe programs that serve those with disabilities and their families.

- Students must take two three-credit hour mandatory interdisciplinary courses: one of which is DISB 580.
- Six hours may be elective courses that cover subject matter related to persons with disabilities or courses within the student's own academic discipline for which they have received prior approval from the certificate program director and the course instructor. Students will be required to complete a project that applies coursework to issues relating to persons with disabilities.
- Two credit hours are earned through thirty volunteer hours in which the student has direct interaction with persons who have disabilities.
- One credit hour is the capstone experience (DISB 686) which includes samples of the student's accumulated work in disabilities, a final essay, and an oral presentation.
- Students must earn a B- or better in all courses to be awarded the certificate upon completion of all requirements.

Autism Spectrum Disorders

Degree Offered

- Master of Arts with a major in Autism Spectrum Disorders

The graduate program in Autism Spectrum Disorders at WVU is designed to prepare professional educators to work with children and adults with autism spectrum disorders and pervasive developmental disabilities. This graduate level program prepares special education teachers and other disability services professionals to engage in current research-based practices to provide high quality educational programs and services in elementary and secondary schools or in community service agencies. WVU is fully accredited by the Higher Learning Commission (HLC), while the program is accredited approved as a teacher education program leading to teaching certification by the West Virginia Department of Education, accredited by the Council for Accreditation of Educator Preparation (CAEP) and nationally recognized by the Council for Exceptional Children.

The program offers three (3) options:

1. certification only in Autism Grades K-6 or 5-Adult (or the equivalent in other states);

2. Master's degree in Special Education plus certification in Autism Grades K-6 or 5-Adult (or the equivalent in other states);

3. Master's degree only in Special Education with emphasis in Autism Spectrum Disorders.

PROGRAM OBJECTIVES

The Department of Special Education believes that children, adolescents, and adults with an autism spectrum disorder have a right to appropriate and adequate services to meet their needs in the home, inclusive preschool, inclusive school, and community settings; they and their families should be empowered to make decisions about services and supports without undue interference from service providers; and they deserve programs that develop skills enabling them to participate fully in family, preschool, school, and community life and enjoy civil rights and personal freedoms as responsible citizens in a free society. This program has been designed so that program graduates can accomplish the following learning goals:

1. promote academic achievement and self-determination by individuals with autism through design of individualized interventions and provision of appropriate supports;

2. demonstrate knowledge and application of current evidence-practices as exemplified by reputable research and professional standards to deliver instruction in inclusive environments in public schools and other community agencies;

3. collaborate with other professionals and agencies in delivery of services and engage in individual and systems advocacy for individuals and their families, and empower individuals and families to participate in program planning and decision making; and

4. reflect in and on practice and respond responsibly to the legal, ethical, social, and cultural issues encountered when working with young children, children, adolescents and adults with an autism spectrum disorder in today's world.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States and in approved international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.0 with a grade of A or B in ALL required courses. A grade of Incomplete will only be approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT earn a grade of A or B in a required course will be required to RE-TAKE THE COURSE to be eligible for the culminating practicum or culminating project.

Students who do NOT maintain a GPA of 3.0 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0.

Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.0 after the probationary period will be subject to DISMISSAL from the program.

Students who engage in academic dishonesty will be assigned 0 points for the assignment or exam for the first offense, an F for the course for the second offense, and dismissed from the program for the third offense. Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

GRADUATION AND COMPLETION REQUIREMENTS

The MINIMUM time to complete most certification or degree programs in special education is:

-TWO (2) calendar years at the rate of SIX (6) credits per semester (part-time study – recommended for students who are working full time and/or have extensive family responsibilities)

-ONE AND ONE HALF (1.5) calendar years at the rate of NINE (9) credits per semester (full-time study- recommended for students who are not employed and/or have minimal family responsibilities.

The MAXIMUM time to complete required certification courses prior to practicum is TEN (10) years.

The MAXIMUM time to complete a graduate degree program at WVU (including all transferred courses) is EIGHT (8) years.

REGULAR admission is granted ONLY WHEN ALL these criteria are met:

Requirements for ALL graduate programs:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 3.00 out of 4.0;
--passing scores on a nationally standardized test of academic ability within a 10 year period: 850 (old) OR 280 (new) on the Graduate Record Exam (GRE) OR 400 on the Miller Analogies Test (MAT) OR passing scores on the Praxis CASE (see below) OR passing scores on Praxis PPST (ONLY if already certified) OR Master's degree in education or a closely related area from a regionally accredited institution with minimum GPA of 3.25 OR professional certificate or license plus documented two (2) years consecutive teaching or clinical experience within the past 10 years verified by copy of certificate or license plus employer letter;
--Recommendation for Graduate Study (see Program Application Form) completed by a previous course instructor;
   --Permission for Field/Clinical Experiences (see Program Application Form) completed by a school administrator.

NOTE: SCHOOL SYSTEMS MAY REQUIRE CRIMINAL BACKGROUND CHECKS AND FORMAL BOARD APPROVAL PRIOR TO PLACEMENT.

ADDITIONAL special requirements for ALL certification or certification plus degree programs only:
--passing scores on the Praxis Core Academic Skills for Educators (CASE) test within a 10 year period -- 156 on 5712, 162 on 5722, 150 on 5732; if GRE or MAT scores are provided as national test scores (see above); Core may be WAIVED ONLY IF evidence is provided of prior certification in some area of education OR a Master's degree from an accredited institution OR a composite score of 25 (26 if enhanced) on the American College Test (ACT) OR a score of 1035 (1125 if re-centered) on the Scholastic Achievement Test (SAT)) OR SAT combined Critical Reading and Math score of 1170 OR passing scores on equivalent tests of reading, mathematics and writing approved in another state.

NOTE: OTHER TESTS MAY BE SUBSTITUTED IF DOCUMENTATION PROVIDED SHOWS CONTENT SUBSTANTIALLY EQUIVALENT TO CASE.

ADDITIONAL special requirements ALSO NEEDED for certification or certification plus degree programs for grades K-6 only:

--prior certification in early childhood education (K-4) or elementary education (K-6 or K-8) (required for K-6 option only);
--prior certification in early childhood education (K-4) or elementary education (K-6) or secondary education (5-9,7-15, 5-Adult) in biology, chemistry, English, general science, mathematics, physics, reading education/specialist, social studies (required for Gifted Education K-12 only).
OTHER special requirements for INTERNATIONAL STUDENTS only:
--TOEFL score: 550 or higher (paper); 215 or higher (computer); 80 or higher (Internet) (non-native English speakers ONLY) OR IELTS score: 6.5 or higher; the English language testing requirement will NOT be waived even for individuals enrolled in the WVU Intensive English Program;
--personal interview (by phone or in person) to verify proficiency in English (non-native English speakers ONLY).

NOTE: U.S. VISA CAN NOT BE ISSUED FOR ONLINE PROGRAMS BUT STUDENTS CAN ENROLL AS RESDIENTS IN THEIR HOME COUNTRIES. INDIVIDUALS WHO ARE LEGAL RESIDENT ALIENS MAY PARTICIPATE IN ONLINE PROGRAMS IF THEY VERIFY THEIR RESIDENT STATUS.

PROVISIONAL ADMISSION

PROVISIONAL admission** MAY be considered under SOME circumstances IF ALL other criteria are met:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.75+ out of 4.0
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.50+ out of 4.0 ONLY IF:
    a. undergraduate degree transcript documents minimum GPA of 3.0 in final 30 credits; OR
    b. graduate transcript documents at least 18 credits leading to teaching certification with minimum GPA 3.25; OR
    c. prior Master's degree in education or closely related area with minimum GPA 3.25

NOTE: UNDERGRADUATE COURSES ONLY ARE COUNTED IN CALCULATING THE GPA. APPLICANTS WITH LOW GPA'S MAY BE ABLE TO RAISE THEIR UNDERGRADUATE GPA BY TAKING ADDITIONAL UNDERGRADUATE COURSES BEFORE APPLYING.

NOTE: Provisional admission is contingent upon maintaining GPA of 3.0 and grades of A or B (and/or making up any identified deficiencies) within the first 9 credits or within 2 semesters, whichever comes first.

Applications submitted before the due date with all supporting documentation are eligible for EARLY ADMISSION. Applications that are incomplete will be rejected. Applicants who meet all regular admission criteria will be admitted automatically to the program. Applicants who meet criteria for provisional admission are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY admission requirement be waived. Dual enrollment is only permitted in exceptional circumstances.

The WVU Application for Graduate Admission is available at http://www.arc.wvu.edu/admissions/grad.html.
The Department of Special Education Program Application Form can be obtained at sped@mail.wvu.edu.
For assistance in completing applications, please contact sped@mail.wvu.edu or 304-293-6932.

APPLICATION SUBMISSION PROCESS

Applications for admission beginning FALL semester: **DUE AUGUST 1**
Applications for admission beginning SPRING semester: **DUE JANUARY 1**
Applications for admission beginning SUMMER semester: **DUE MAY 1**

Rolling admissions processing policy means that applications for admissions are processed and a decision is made as soon as all application materials are available, and applicants are notified immediately after the application review has been completed.

ADMISSION TO CULMINATING PRACTICUM

Requirements includecompletion of all required courses, submission of passing scores on required Praxis Content Tests, and submission of completed Application for Practicum,

Principles of Learning & Teaching K-6 (5622) with a score of 160 or 5-9 (5623) with score of 160 or 7-12 (5624) with score of 157 if NO prior certification

Core Knowledge and Applications (5354) with score of 151

Master of Arts
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

A grade of B or higher is required in all graduate coursework		
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 603	Classroom/Behavior Management for Special Needs	3
SPED 609	Technology Applications for Special Needs	3
SPED 650	Learning Characteristics:Autism	3
SPED 652	Educational Interventions: Autism	3
SPED 659	Culminating Practicum: Autism Spectrum Disorders	6

or SPED 680	Culminating Project	
SPED 663	Collaborative-Consultative Inclusion Strategies	3
SPED 666	Reading for Special Needs	3
RDNG 622	Content Area Literacy Instruction	3
Select one of the following:		3
SPED 667	Elementary Content Methods	
SPED 668	Secondary Content Methods	
Electives		3
SPED 601	Academic Interventions for Special Needs	
SPED 611	Early Learning Curriculum: Early Intervention	
SPED 612	Responsive Intervention: Early Intervention	
SPED 616	Behavior Guidance/Support: Early Intervention	
SPED 630	Intro Low Vision/Blindness	
SPED 635	Teaching Students With Low Vision/Blindness	
SPED 636	Teaching Students With Vision/Multiple Impairments	
SPED 665	Mathematics for Special Needs [*]	
SPED 670	Introduction to Gifted Education	
SPED 674	Support for Special Populations in Gifted Education	
Total Hours		**36**

[*]   Required for students pursuing certification

NOTE: Students seeking certification for grades 5-Adult must also complete fifteen credit hours of course work in at least one academic content area (biology, English, general science, mathematics, or social studies).

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 670	3	SPED 672	3	SPED 500	3
SPED 674	3	SPED 676	3	SPED 601	3
SPED 603	3	SPED 663	3	SPED 609	3
	9		**9**		**9**

Second Year

Fall	Hours
Select one of the following:	
SPED 679	6
SPED 680	
Elective	3
	9

Total credit hours: 36

Early Intervention/Early Childhood Special Education

Degree Offered

• Master of Arts with a major in Early Intervention/Early Childhood Special Education

The graduate program in Early Childhood Special Education at WVU is designed to prepare professional educators to work with preschoolers and kindergarteners with developmental disabilities, delays and at risk conditions from age 3 through 6. This graduate level program prepares special education teachers, early intervention providers., and other disability services professionals to engage in current research-based practices to provide high quality educational programs and services in birth to three intervention services, in public or private preschools or kindergartens, or in community service agencies. WVU is fully accredited by the Higher Learning Commission (HLC), while the program is accredited approved as a teacher education program leading to teaching certification by the West Virginia Department of Education, accredited by the Council for Accreditation of Educator Preparation (CAEP) and nationally recognized by the Council for Exceptional Children.

The program offers three (3) options:

1. certification only in Preschool Special Needs Grades PreK-K (or the equivalent in other states);

2. Master's degree in Special Education plus certification in Preschool Special Needs Grades PreK-K (or the equivalent in other states);

3. Master's degree only in Special Education with emphasis in Early Childhood Special Education

PROGRAM OBJECTIVES

The Department of Special Education believes that young children with special needs and their families have a right to appropriate services designed to meet their unique needs in home and community-based settings; young children and their families deserve programs that promote optimal child development and early learning, and foster positive child-parent interactions and enhance family functioning to support a meaningful quality of life; and families have the right to participate fully in decision making about needed services and supports without in partnership with service providers and agencies. This program has been designed so that program graduates can accomplish the following learning goals:

1. provide high quality early childhood special education services to young children with special needs and their families in inclusive environments within public schools and other community agencies;

2. demonstrate knowledge and application of current evidence-practices as exemplified by reputable research and professional standards to deliver instruction in inclusive environments in family homes, public schools and other community agencies;

3. collaborate with other professionals and agencies in delivery of services and engage in individual and systems advocacy for individuals and their families, and empower individuals and families to participate in program planning and decision making; and

4. reflect in and on practice and respond responsibly to the legal, ethical, social, and cultural issues encountered when working with young children with special needs and their families in today's world.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States and in approved international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.0 with a grade of A or B in ALL required courses. A grade of Incomplete will only be approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT earn a grade of A or B in a required course will be required to RE-TAKE THE COURSE to be eligible for the culminating practicum or culminating project.

Students who do NOT maintain a GPA of 3.0 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0.

Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.0 after the probationary period will be subject to DISMISSAL from the program.

Students who engage in academic dishonesty will be assigned 0 points for the assignment or exam for the first offense, an F for the course for the second offense, and dismissed from the program for the third offense. Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

GRADUATION AND COMPLETION REQUIREMENTS

The MINIMUM time to complete most certification or degree programs in special education is:

-TWO (2) calendar years at the rate of SIX (6) credits per semester (part-time study – recommended for students who are working full time and/or have extensive family responsibilities)

-ONE AND ONE HALF (1.5) calendar years at the rate of NINE (9) credits per semester (full-time study- recommended for students who are not employed and/or have minimal family responsibilities.

The MAXIMUM time to complete required certification courses prior to practicum is TEN (10) years.

The MAXIMUM time to complete a graduate degree program at WVU (including all transferred courses) is EIGHT (8) years.

REGULAR admission is granted ONLY WHEN ALL these criteria are met:

Requirements for ALL graduate programs:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 3.00 out of 4.0;
--passing scores on a nationally standardized test of academic ability within a 10 year period: 850 (old) OR 280 (new) on the Graduate Record Exam (GRE) OR 400 on the Miller Analogies Test (MAT) OR passing scores on the Praxis CASE (see below) OR passing scores on Praxis PPST (ONLY if already certified) OR Master's degree in education or a closely related area from a regionally accredited institution with minimum GPA of 3.25 OR professional certificate or license plus documented two (2) years consecutive teaching or clinical experience within the past 10 years verified by copy of certificate or license plus employer letter;
--Recommendation for Graduate Study (see Program Application Form) completed by a previous course instructor;
    --Permission for Field/Clinical Experiences (see Program Application Form) completed by a school administrator.

NOTE: SCHOOL SYSTEMS MAY REQUIRE CRIMINAL BACKGROUND CHECKS AND FORMAL BOARD APPROVAL PRIOR TO PLACEMENT.

ADDITIONAL special requirements for ALL certification or certification plus degree programs only:
--passing scores on the Praxis Core Academic Skills for Educators (CASE) test within a 10 year period -- 156 on 5712, 162 on 5722, 150 on 5732; if GRE or MAT scores are provided as national test scores (see above); Core may be WAIVED ONLY IF evidence is provided of prior certification in some area of education OR a Master's degree from an accredited institution OR a composite score of 25 (26 if enhanced) on the American College Test (ACT) OR a score of 1035 (1125 if re-centered) on the Scholastic Achievement Test (SAT)) OR SAT combined Critical Reading and Math score of 1170 OR passing scores on equivalent tests of reading, mathematics and writing approved in another state.

NOTE: OTHER TESTS MAY BE SUBSTITUTED IF DOCUMENTATION PROVIDED SHOWS CONTENT SUBSTANTIALLY EQUIVALENT TO CASE.

ADDITIONAL special requirements ALSO NEEDED for certification or certification plus degree programs for grades K-6 only:
--prior certification in early childhood education (K-4) or elementary education (K-6 or K-8) (required for K-6 option only);
--prior certification in early childhood education (K-4) or elementary education (K-6) or secondary education (5-9,7-15, 5-Adult) in biology, chemistry, English, general science, mathematics, physics, reading education/specialist, social studies (required for Gifted Education K-12 only).
OTHER special requirements for INTERNATIONAL STUDENTS only:
--TOEFL score: 550 or higher (paper); 215 or higher (computer); 80 or higher (Internet) (non-native English speakers ONLY) OR IELTS score: 6.5 or higher; the English language testing requirement will NOT be waived even for individuals enrolled in the WVU Intensive English Program;
--personal interview (by phone or in person) to verify proficiency in English (non-native English speakers ONLY).

NOTE: U.S. VISA CAN NOT BE ISSUED FOR ONLINE PROGRAMS BUT STUDENTS CAN ENROLL AS RESDIENTS IN THEIR HOME COUNTRIES. INDIVIDUALS WHO ARE LEGAL RESIDENT ALIENS MAY PARTICIPATE IN ONLINE PROGRAMS IF THEY VERIFY THEIR RESIDENT STATUS.

PROVISIONAL ADMISSION

PROVISIONAL admission** MAY be considered under SOME circumstances IF ALL other criteria are met:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.75+ out of 4.0
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.50+ out of 4.0 ONLY IF:
    a. undergraduate degree transcript documents minimum GPA of 3.0 in final 30 credits; OR
    b. graduate transcript documents at least 18 credits leading to teaching certification with minimum GPA 3.25; OR
    c. prior Master's degree in education or closely related area with minimum GPA 3.25

NOTE: UNDERGRADUATE COURSES ONLY ARE COUNTED IN CALCULATING THE GPA. APPLICANTS WITH GPAs MAY BE ABLE TO RAISE THEIR UNDERGRADUATE GPA BY TAKING ADDITIONAL UNDERGRADUATE COURSES BEFORE APPLYING.

NOTE: Provisional admission is contingent upon maintaining GPA of 3.0 and grades of A or B (and/or making up any identified deficiencies) within the first 9 credits or within 2 semesters, whichever comes first.

Applications submitted before the due date with all supporting documentation are eligible for EARLY ADMISSION. Applications that are incomplete will be rejected. Applicants who meet all regular admission criteria will be admitted automatically to the program. Applicants who meet criteria for provisional admission are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY admission requirement be waived. Dual enrollment is only permitted in exceptional circumstances.

The WVU Application for Graduate Admission is available at http://www.arc.wvu.edu/admissions/grad.html.
The Department of Special Education Program Application Form can be obtained at sped@mail.wvu.edu.
For assistance in completing applications, please contact sped@mail.wvu.edu or 304-293-6932.

APPLICATION SUBMISSION PROCESS

Applications for admission beginning FALL semester: **DUE AUGUST 1**
Applications for admission beginning SPRING semester: **DUE JANUARY 1**

Applications for admission beginning SUMMER semester: **DUE MAY 1**

Rolling admissions processing policy means that applications for admissions are processed and a decision is made as soon as all application materials are available, and applicants are notified immediately after the application review has been completed.

Master of Arts
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

A grade of B or higher is required in all graduate coursework		
SPED 600	Instructional/Assistive Technology	3
SPED 604	Characteristics/Educational Adaptations: Developmental Disabilities	3
SPED 605	Family/Professional Collaboration: Developmental Disabilities	3
SPED 606	Communication and Literacy Intervention: Developmental Disabilities	3
SPED 607	Formal and Informal Assessment: Developmental Disabilities	3
SPED 610	Typical/Atypical Development: Early Intervention	3
SPED 611	Early Learning Curriculum: Early Intervention	3
SPED 612	Responsive Intervention: Early Intervention	3
SPED 616	Behavior Guidance/Support: Early Intervention	3
Approved Elective		3
SPED 500	Legal/Educational Foundations: Special Education	
SPED 620	Standards-Based Curriculum: Severe Disabilities	
SPED 622	Instructional Programming: Severe Disabilities	
SPED 626	Positive Behavior Support:Severe Disabilities	
SPED 650	Learning Characteristics:Autism	
SPED 630	Intro Low Vision/Blindness	
SPED 635	Teaching Students With Low Vision/Blindness	
SPED 636	Teaching Students With Vision/Multiple Impairments	
SPED 652	Educational Interventions: Autism	
SPED 662	Differentiating Instruction for English Language Learners with Disabilities	
SPED 667	Elementary Content Methods	
SPED 680	Culminating Project	6
or SPED 619	Culminating Practicum: Early Childhood Special Education	
Total Hours		**36**

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 605	3	SPED 606	3	SPED 600	3
SPED 611	3	SPED 607	3	SPED 610	3
SPED 616	3	SPED 612	3	SPED 604	3
	9		**9**		**9**

Second Year

Fall	Hours
Select one of the following:	
SPED 619	6
SPED 680	
Elective	3
	9

Total credit hours: 36

Gifted Education

Degree Offered

- Master of Arts with a major in Gifted Education

The graduate program in Gifted Education at WVU is designed to prepare professional educators to work with children and adolescents with gifts and talents as well as other high ability learners. This graduate level program prepares special education teachers and other professionals to engage in current research-based practices to provide high quality educational programs and services for acceleration and enrichment in elementary or secondary schools or post-secondary programs. WVU is fully accredited by the Higher Learning Commission (HLC), while the program is accredited approved as a teacher education program leading to teaching certification by the West Virginia Department of Education, accredited by the Council for Accreditation of Educator Preparation (CAEP) and nationally recognized by the Council for Exceptional Children.

The program offers three (3) options:

1. certification only in Gifted Grades K-12 (or the equivalent in other states);

2. Master's degree in Special Education plus certification in Gifted Grades K-12(or the equivalent in other states);

3. Master's degree only in Special Education with emphasis in Gifted Education

PROGRAM OBJECTIVES

The Department of Special Education believes that students with gifts and talents are entitled to high quality, individualized educational programs because: a) a democratic society that recognizes the intrinsic worth of every citizen, schools has a duty to assist all students to achieve their highest potential, including that minority of youth at the upper end of the ability continuum who display gifts and talents in academic achievement as well as other performance dimensions; and b) various human gifts and talents can be suppressed or even wasted if the abilities and talents of such individuals are not developed and nurtured, resulting in the loss of potentially invaluable contributions to human welfare and social advancement.This program has been designed so that program graduates can accomplish the following learning goals:

1. provide high quality educational services to children, adolescents, and young adults with gifts and talents and other high ability learners in elementary and secondary schools as well as post-secondary education settings;

2. demonstrate knowledge and application of current evidence-practices as exemplified by reputable research and professional standards to deliver instruction in to provide accelerated and enriched learning experiences;

3. collaborate with other professionals and agencies in delivery of services and engage in individual and systems advocacy for individuals and their families, and empower individuals and families to participate in program planning and decision making; and

4. reflect in and on practice and respond responsibly to the legal, ethical, social, and cultural issues encountered when working with individuals with gifts and talents and their families in today's world.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States and in approved international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.0 with a grade of A or B in ALL required courses. A grade of Incomplete will only be approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT earn a grade of A or B in a required course will be required to RE-TAKE THE COURSE to be eligible for the culminating practicum or culminating project.

Students who do NOT maintain a GPA of 3.0 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0.

Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.0 after the probationary period will be subject to DISMISSAL from the program.

Students who engage in academic dishonesty will be assigned 0 points for the assignment or exam for the first offense, an F for the course for the second offense, and dismissed from the program for the third offense. Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

GRADUATION AND COMPLETION REQUIREMENTS

The MINIMUM time to complete most certification or degree programs in special education is:

-TWO (2) calendar years at the rate of SIX (6) credits per semester (part-time study – recommended for students who are working full time and/or have extensive family responsibilities)

-ONE AND ONE HALF (1.5) calendar years at the rate of NINE (9) credits per semester (full-time study- recommended for students who are not employed and/or have minimal family responsibilities.

The MAXIMUM time to complete required certification courses prior to practicum is TEN (10) years.

REQUIREMENTS FOR ADMISSION TO CULMINATING PRACTICUM: completion of all required courses, submission of passing scores on required Praxis Content Tests, and submission of completed Application for Practicum,

--Principles of Learning & Teaching K-6 (5622) with a score of 160 or 5-9 (5623) with score of 160 or 7-12 (5624) with score of 157 if NO prior certification

--Special Education: Gifted Education (5358) with score of 155 (required ONLY for practicum admission)

REGULAR ADMISSION

Requirements for ALL graduate programs:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 3.00 out of 4.0;
--passing scores on a nationally standardized test of academic ability within a 10 year period: 850 (old) OR 280 (new) on the Graduate Record Exam (GRE) OR 400 on the Miller Analogies Test (MAT) OR passing scores on the Praxis CASE (see below) OR passing scores on Praxis PPST (ONLY if already certified) OR Master's degree in education or a closely related area from a regionally accredited institution with minimum GPA of 3.25 OR professional certificate or license plus documented two (2) years consecutive teaching or clinical experience within the past 10 years verified by copy of certificate or license plus employer letter;
--Recommendation for Graduate Study (see Program Application Form) completed by a previous course instructor;
    --Permission for Field/Clinical Experiences (see Program Application Form) completed by a school administrator.

NOTE: SCHOOL SYSTEMS MAY REQUIRE CRIMINAL BACKGROUND CHECKS AND FORMAL BOARD APPROVAL PRIOR TO PLACEMENT.

ADDITIONAL special requirements for ALL certification or certification plus degree programs only:
--passing scores on the Praxis Core Academic Skills for Educators (CASE) test within a 10 year period -- 156 on 5712, 162 on 5722, 150 on 5732; if GRE or MAT scores are provided as national test scores (see above); Core may be WAIVED ONLY IF evidence is provided of prior certification in some area of education OR a Master's degree from an accredited institution OR a composite score of 25 (26 if enhanced) on the American College Test (ACT) OR a score of 1035 (1125 if re-centered) on the Scholastic Achievement Test (SAT)) OR SAT combined Critical Reading and Math score of 1170 OR passing scores on equivalent tests of reading, mathematics and writing approved in another state.

NOTE: OTHER TESTS MAY BE SUBSTITUTED IF DOCUMENTATION PROVIDED SHOWS CONTENT SUBSTANTIALLY EQUIVALENT TO CASE.

ADDITIONAL special requirements ALSO NEEDED for certification or certification plus degree programs for grades K-6 only:
--prior certification in early childhood education (K-4) or elementary education (K-6 or K-8) (required for K-6 option only);
--prior certification in early childhood education (K-4) or elementary education (K-6) or secondary education (5-9,7-15, 5-Adult) in biology, chemistry, English, general science, mathematics, physics, reading education/specialist, social studies (required for Gifted Education K-12 only).
OTHER special requirements for INTERNATIONAL STUDENTS only:
--TOEFL score: 550 or higher (paper); 215 or higher (computer); 80 or higher (Internet) (non-native English speakers ONLY) OR IELTS score: 6.5 or higher; the English language testing requirement will NOT be waived even for individuals enrolled in the WVU Intensive English Program;
--personal interview (by phone or in person) to verify proficiency in English (non-native English speakers ONLY).

NOTE: U.S. VISA CAN NOT BE ISSUED FOR ONLINE PROGRAMS BUT STUDENTS CAN ENROLL AS RESDIENTS IN THEIR HOME COUNTRIES. INDIVIDUALS WHO ARE LEGAL RESIDENT ALIENS MAY PARTICIPATE IN ONLINE PROGRAMS IF THEY VERIFY THEIR RESIDENT STATUS.

PROVISIONAL ADMISSION

PROVISIONAL admission** MAY be considered under SOME circumstances IF ALL other criteria are met:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.75+ out of 4.0
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.50+ out of 4.0 ONLY IF:
    a. undergraduate degree transcript documents minimum GPA of 3.0 in final 30 credits; OR
    b. graduate transcript documents at least 18 credits leading to teaching certification with minimum GPA 3.25; OR

c. prior Master's degree in education or closely related area with minimum GPA 3.25

NOTE: UNDERGRADUATE COURSES ONLY ARE COUNTED IN CALCULATING THE GPA. APPLICANTS WITH GPAs MAY BE ABLE TO RAISE THEIR UNDERGRADUATE GPA BY TAKING ADDITIONAL UNDERGRADUATE COURSES BEFORE APPLYING.

NOTE: Provisional admission is contingent upon maintaining GPA of 3.0 and grades of A or B (and/or making up any identified deficiencies) within the first 9 credits or within 2 semesters, whichever comes first.

Applications submitted before the due date with all supporting documentation are eligible for EARLY ADMISSION. Applications that are incomplete will be rejected. Applicants who meet all regular admission criteria will be admitted automatically to the program. Applicants who meet criteria for provisional admission are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY admission requirement be waived. Dual enrollment is only permitted in exceptional circumstances.

The WVU Application for Graduate Admission is available at http://www.arc.wvu.edu/admissions/grad.html.
The Department of Special Education Program Application Form can be obtained at sped@mail.wvu.edu.
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Applications for admission beginning SUMMER semester:	**DUE MAY 1**

Rolling admissions processing policy means that applications for admissions are processed and a decision is made as soon as all application materials are available, and applicants are notified immediately after the application review has been completed.

Master of Arts

MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

A grade of C or higher is required in all graduate coursework		
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 601	Academic Interventions for Special Needs	3
SPED 603	Classroom/Behavior Management for Special Needs	3
SPED 609	Technology Applications for Special Needs	3
SPED 663	Collaborative-Consultative Inclusion Strategies	3
SPED 670	Introduction to Gifted Education	3
SPED 672	Teaching Strategies: Gifted Education	3
SPED 674	Support for Special Populations in Gifted Education	3
SPED 676	Critical Thinking/Creativity in Gifted Education	3
Approved Electives		3
SPED 604	Characteristics/Educational Adaptations: Developmental Disabilities	
SPED 611	Early Learning Curriculum: Early Intervention	
SPED 630	Intro Low Vision/Blindness	
SPED 650	Learning Characteristics:Autism	
SPED 652	Educational Interventions: Autism	
SPED 662	Differentiating Instruction for English Language Learners with Disabilities	
SPED 665	Mathematics for Special Needs	
SPED 666	Reading for Special Needs	
SPED 667	Elementary Content Methods	
SPED 671	Gifted and High Ability Learners in Inclusive Classrooms	
SPED 675	Research to Practice	
SPED 679	Culminating Practicum: Gifted Education	6
or SPED 680	Culminating Project	
Total Hours		**36**

Suggested Plan of Study (Full-time Study)

This plan is designed for full-time students who have no other major responsibilities or other students who wish to complete the program more quickly and believe they can manage the workload.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 670	3	SPED 672	3	SPED 500	3
SPED 674	3	SPED 676	3	SPED 601	3
SPED 603	3	SPED 663	3	SPED 609	3
	9		**9**		**9**

Second Year

Fall	Hours
Select one of the following:	
SPED 679	6
SPED 680	
Elective	3
	9

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Suggested Plan of Study (Part-time Study)

This plan is designed for part-time students who are working full time and have other family responsibilities.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 670	3	SPED 672	3	SPED 500	3
SPED 674	3	SPED 676	3	SPED 601	3
	6		**6**		**6**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 603	3	Elective	3	SPED 609	3
SPED 663	3				
	6		**3**		**3**

Third Year

Fall	Hours
Select one of the following:	
SPED 679	6
SPED 680	
	6

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Low Vision/Blindness

Degree Offered

- Master of Arts with a major in Low Vision/Blindness

The graduate program in Low Vision/Blindness at WVU is designed to prepare professional educators to work with children and adolescents with low vision, visual impairments and blindness. This graduate level program prepares special education teachers and other professionals to engage in

current research-based practices to provide high quality educational programs and services for preschoolers, children and adolescents in elementary or secondary school programs and post-school programs. WVU is fully accredited by the Higher Learning Commission (HLC), while the program is accredited approved as a teacher education program leading to teaching certification by the West Virginia Department of Education, accredited by the Council for Accreditation of Educator Preparation (CAEP) and nationally recognized by the Council for Exceptional Children.

The program offers three (3) options:

1. Certification only in Visual Impairments Grades PreK-Adult (or the equivalent in other states);

2. Master's degree in Special Education plus certification in Visual Impairments Grades PreK-Adult (or the equivalent in other states);

3. Master's degree only in Special Education with emphasis in Low Vision/Blindness

PROGRAM OBJECTIVES

The Department of Special Education believes that individuals with low vision, visual impairments and blindness are entitled to high quality, individualized educational programs individually designed to meet their unique needs in inclusive school and community program as well as residential centers; and these individuals and families should be empowered to make decisions about services and supports required to succeed academically and socially. This program has been designed so that program graduates can accomplish the following learning goals:

1. provide high quality educational services to children, adolescents, and adults with low vision. visual impairments and blindness in elementary and secondary schools as well as post-secondary education settings;

2. demonstrate knowledge and application of current evidence-practices as exemplified by reputable research and professional standards to deliver instruction in to develop academic, social and functional skills;

3. collaborate with other professionals and agencies in delivery of services and engage in individual and systems advocacy for individuals and their families, and empower individuals and families to participate in program planning and decision making; and

4. reflect in and on practice and respond responsibly to the legal, ethical, social, and cultural issues encountered when working with individuals with low vision/blindness and their families in today's world.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States and in approved international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.0 with a grade of A or B in ALL required courses. A grade of Incomplete will only be approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT earn a grade of A or B in a required course will be required to RE-TAKE THE COURSE to be eligible for the culminating practicum or culminating project.

Students who do NOT maintain a GPA of 3.0 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0.

Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.0 after the probationary period will be subject to DISMISSAL from the program.

Students who engage in academic dishonesty will be assigned 0 points for the assignment or exam for the first offense, an F for the course for the second offense, and dismissed from the program for the third offense. Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

GRADUATION AND COMPLETION REQUIREMENTS

The MINIMUM time to complete most certification or degree programs in special education is:

-TWO (2) calendar years at the rate of SIX (6) credits per semester (part-time study – recommended for students who are working full time and/or have extensive family responsibilities

-ONE AND ONE HALF (1.5) calendar years at the rate of NINE (9) credits per semester (full-time study- recommended for students who are not employed and/or have minimal family responsibilities.

The MAXIMUM time to complete required certification courses prior to practicum is TEN (10) years.

REQUIREMENTS FOR ADMISSION TO CULMINATING PRACTICUM: completion of all required courses, submission of passing scores on required Praxis Content Tests, and submission of completed Application for Practicum,

--Principles of Learning & Teaching K-6 (5622) with a score of 160 or 5-9 (5623) with score of 160 or 7-12 (5624) with score of 157 if NO prior certification

--Teaching Students with Visual Impairments (5282) with score of 163

REGULAR ADMISSION

REGULAR admission is granted ONLY WHEN ALL these criteria are met:

Requirements for ALL graduate programs:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 3.00 out of 4.0;
--passing scores on a nationally standardized test of academic ability within a 10 year period: 850 (old) OR 280 (new) on the Graduate Record Exam (GRE) OR 400 on the Miller Analogies Test (MAT) OR passing scores on the Praxis CASE (see below) OR passing scores on Praxis PPST (ONLY if already certified) OR Master's degree in education or a closely related area from a regionally accredited institution with minimum GPA of 3.25 OR professional certificate or license plus documented two (2) years consecutive teaching or clinical experience within the past 10 years verified by copy of certificate or license plus employer letter;
--Recommendation for Graduate Study (see Program Application Form) completed by a previous course instructor;
   --Permission for Field/Clinical Experiences (see Program Application Form) completed by a school administrator.

NOTE: SCHOOL SYSTEMS MAY REQUIRE CRIMINAL BACKGROUND CHECKS AND FORMAL BOARD APPROVAL PRIOR TO PLACEMENT.

ADDITIONAL special requirements for ALL certification or certification plus degree programs only:
--passing scores on the Praxis Core Academic Skills for Educators (CASE) test within a 10 year period -- 156 on 5712, 162 on 5722, 150 on 5732; if GRE or MAT scores are provided as national test scores (see above); Core may be WAIVED ONLY IF evidence is provided of prior certification in some area of education OR a Master's degree from an accredited institution OR a composite score of 25 (26 if enhanced) on the American College Test (ACT) OR a score of 1035 (1125 if re-centered) on the Scholastic Achievement Test (SAT)) OR SAT combined Critical Reading and Math score of 1170 OR passing scores on equivalent tests of reading, mathematics and writing approved in another state.

NOTE: OTHER TESTS MAY BE SUBSTITUTED IF DOCUMENTATION PROVIDED SHOWS CONTENT SUBSTANTIALLY EQUIVALENT TO CASE.

ADDITIONAL special requirements ALSO NEEDED for certification or certification plus degree programs for grades K-6 only:
--prior certification in early childhood education (K-4) or elementary education (K-6 or K-8) (required for K-6 option only);
--prior certification in early childhood education (K-4) or elementary education (K-6) or secondary education (5-9,7-15, 5-Adult) in biology, chemistry, English, general science, mathematics, physics, reading education/specialist, social studies (required for Gifted Education K-12 only).
OTHER special requirements for INTERNATIONAL STUDENTS only:
--TOEFL score: 550 or higher (paper); 215 or higher (computer); 80 or higher (Internet) (non-native English speakers ONLY) OR IELTS score: 6.5 or higher; the English language testing requirement will NOT be waived even for individuals enrolled in the WVU Intensive English Program;
--personal interview (by phone or in person) to verify proficiency in English (non-native English speakers ONLY).

NOTE: U.S. VISA CAN NOT BE ISSUED FOR ONLINE PROGRAMS BUT STUDENTS CAN ENROLL AS RESDIENTS IN THEIR HOME COUNTRIES. INDIVIDUALS WHO ARE LEGAL RESIDENT ALIENS MAY PARTICIPATE IN ONLINE PROGRAMS IF THEY VERIFY THEIR RESIDENT STATUS.

PROVISIONAL ADMISSION

PROVISIONAL admission** MAY be considered under SOME circumstances IF ALL other criteria are met:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.75+ out of 4.0
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.50+ out of 4.0 ONLY IF:
   a. undergraduate degree transcript documents minimum GPA of 3.0 in final 30 credits; OR
   b. graduate transcript documents at least 18 credits leading to teaching certification with minimum GPA 3.25; OR
   c. prior Master's degree in education or closely related area with minimum GPA 3.25

NOTE: UNDERGRADUATE COURSES ONLY ARE COUNTED IN CALCULATING THE GPA. APPLICANTS WITH GPAs MAY BE ABLE TO RAISE THEIR UNDERGRADUATE GPA BY TAKING ADDITIONAL UNDERGRADUATE COURSES BEFORE APPLYING.

NOTE: Provisional admission is contingent upon maintaining GPA of 3.0 and grades of A or B (and/or making up any identified deficiencies) within the first 9 credits or within 2 semesters, whichever comes first.

Applications submitted before the due date with all supporting documentation are eligible for EARLY ADMISSION. Applications that are incomplete will be rejected. Applicants who meet all regular admission criteria will be admitted automatically to the program. Applicants who meet criteria for provisional admission are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY admission requirement be waived. Dual enrollment is only permitted in exceptional circumstances.

The WVU Application for Graduate Admission is available at http://www.arc.wvu.edu/admissions/grad.html.
The Department of Special Education Program Application Form can be obtained at sped@mail.wvu.edu.
For assistance in completing applications, please contact sped@mail.wvu.edu or 304-293-6932.

APPLICATION SUBMISSION PROCESS

Applications for admission beginning FALL semester: **DUE AUGUST 1**
Applications for admission beginning SPRING semester: **DUE JANUARY 1**
Applications for admission beginning SUMMER semester: **DUE MAY 1**

Rolling admissions processing policy means that applications for admissions are processed and a decision is made as soon as all application materials are available, and applicants are notified immediately after the application review has been completed.

Master of Arts
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

A grade of C or higher is required in all graduate coursework		
SPED 600	Instructional/Assistive Technology	3
SPED 603	Classroom/Behavior Management for Special Needs	3
SPED 663	Collaborative-Consultative Inclusion Strategies	3
SPED 630	Intro Low Vision/Blindness	3
SPED 631	Introduction to Braille	3
SPED 632	Braille Reading and Literacy Development	3
SPED 633	Nemeth Code and Mathematics Development	3
SPED 635	Teaching Students With Low Vision/Blindness	3
SPED 636	Teaching Students With Vision/Multiple Impairments	3
SPED 637	Basic Orientation and Mobility Skills	3
SPED 639	Culminating Practicum: Low Vision/Blindness	6
or SPED 680	Culminating Project	
Total Hours		**36**

Suggested Plan of Study (Full-time Study)

This plan is designed for full-time students who have no other major responsibilities or other students who wish to complete the program more quickly and believe they can manage the workload.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 630	3	SPED 632	3	SPED 600	3
SPED 631	3	SPED 635	3	SPED 633	3
SPED 603	3	SPED 663	3	SPED 636	3
				SPED 637	3
	9		**9**		**12**

Second Year

Fall	Hours
Select one of the following:	
SPED 639	6
SPED 680	
	6

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Plan of Study (Part-time Study)

This plan is designed for part-time students who are working full time and have other family responsibilities.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 630		3 SPED 632		3 SPED 600	3
SPED 631	3			SPED 633	3
	6		**3**		**6**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 663		3 SPED 635		3 SPED 636	3
		SPED 603		3 SPED 637	3
	3		**6**		**6**

Third Year

Fall	Hours
Select one of the following:	
SPED 680	
SPED 639	6
	6

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Multicategorical Special Education

Degree Offered

- Master of Arts with a major in multicategorical special education

The graduate program in Multicategorical Special Education at WVU is designed to prepare professional educators to work with children and adolescents with mild/moderate disabilities including learning disabilities, emotional/behavior disorders, and intellectual disabilities. This graduate level program prepares special education teachers and other professionals to engage in current research-based practices to provide high quality educational programs and services to promote academic achievement and post-school outcomes in inclusive elementary or secondary schools. WVU is fully accredited by the Higher Learning Commission (HLC), while the program is accredited approved as a teacher education program leading to teaching certification by the West Virginia Department of Education, accredited by the Council for Accreditation of Educator Preparation (CAEP) and nationally recognized by the Council for Exceptional Children.

The program offers three (3) options:

1. Certification only in Multicategorical Special Education Grades K-6 or 5-Adult (or the equivalent in other states);

2. Master's degree in Special Education plus certification in Multicategorical Special Education Grades K-6 or 5-Adult (or the equivalent in other states);

3. Master's degree only in Special Education with emphasis in Multicategorical Special Education

PROGRAM OBJECTIVES

The Department of Special Education believes that students with with mild/moderate disabilities have a right to equitable, appropriate, and high quality education programs and services designed to meet their unique needs in inclusive schools and community settings; special educators play a critical role in the education of children with mild/moderate disabilities as co-instructors in inclusive general education classrooms, primary instructors in resource rooms or special classes, or as consultants to the classroom teacher; and these individuals and families should be empowered to make decisions about services and supports required to succeed academically, socially, and as a part of the citizenry. This program has been designed so that program graduates can accomplish the following learning goals:

1. provide high quality educational services to children and adolescents with mild/moderate disabilities in inclusive classrooms and resource rooms in elementary and secondary schools;

2. demonstrate knowledge and application of current evidence-practices as exemplified by reputable research and professional standards to deliver individualized instruction to develop academic and social skills

3. collaborate with other professionals and agencies in delivery of services and engage in individual and systems advocacy for individuals and their families, and empower individuals and families to participate in program planning and decision making; and

4. reflect in and on practice and respond responsibly to the legal, ethical, social, and cultural issues encountered when working with individuals with gifts and talents and their families in today's world.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States and in approved international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.0 with a grade of A or B in ALL required courses. A grade of Incomplete will only be approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT earn a grade of A or B in a required course will be required to RE-TAKE THE COURSE to be eligible for the culminating practicum or culminating project.

Students who do NOT maintain a GPA of 3.0 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0.

Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.0 after the probationary period will be subject to DISMISSAL from the program.

Students who engage in academic dishonesty will be assigned 0 points for the assignment or exam for the first offense, an F for the course for the second offense, and dismissed from the program for the third offense. Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

GRADUATION AND COMPLETION REQUIREMENTS

The MINIMUM time to complete most certification or degree programs in special education is:

-TWO (2) calendar years at the rate of SIX (6) credits per semester (part-time study – recommended for students who are working full time and/or have extensive family responsibilities.

-ONE AND ONE HALF (1.5) calendar years at the rate of NINE (9) credits per semester (full-time study- recommended for students who are not employed and/or have minimal family responsibilities.

The MAXIMUM time to complete required certification courses prior to practicum is TEN (10) years.

REQUIREMENTS FOR ADMISSION TO CULMINATING PRACTICUM: completion of all required courses, submission of passing scores on required Praxis Content Tests, and submission of completed Application for Practicum,

--Principles of Learning & Teaching K-6 (5622) with a score of 160 or 5-9 (5623) with score of 160 or 7-12 (5624) with score of 157 if NO prior certification

--Special Education: Core Content and Mild/Moderate Applications (5543) with score of 153

REGULAR ADMISSION

REGULAR admission is granted ONLY WHEN ALL these criteria are met:

Requirements for ALL graduate programs:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 3.00 out of 4.0;

--passing scores on a nationally standardized test of academic ability within a 10 year period: 850 (old) OR 280 (new) on the Graduate Record Exam (GRE) OR 400 on the Miller Analogies Test (MAT) OR passing scores on the Praxis CASE (see below) OR passing scores on Praxis PPST (ONLY if already certified) OR Master's degree in education or a closely related area from a regionally accredited institution with minimum GPA of 3.25 OR professional certificate or license plus documented two (2) years consecutive teaching or clinical experience within the past 10 years verified by copy of certificate or license plus employer letter;
--Recommendation for Graduate Study (see Program Application Form) completed by a previous course instructor;
    --Permission for Field/Clinical Experiences (see Program Application Form) completed by a school administrator.

NOTE: SCHOOL SYSTEMS MAY REQUIRE CRIMINAL BACKGROUND CHECKS AND FORMAL BOARD APPROVAL PRIOR TO PLACEMENT.

ADDITIONAL special requirements for ALL certification or certification plus degree programs only:
--passing scores on the Praxis Core Academic Skills for Educators (CASE) test within a 10 year period -- 156 on 5712, 162 on 5722, 150 on 5732; if GRE or MAT scores are provided as national test scores (see above); Core may be WAIVED ONLY IF evidence is provided of prior certification in some area of education OR a Master's degree from an accredited institution OR a composite score of 25 (26 if enhanced) on the American College Test (ACT) OR a score of 1035 (1125 if re-centered) on the Scholastic Achievement Test (SAT)) OR SAT combined Critical Reading and Math score of 1170 OR passing scores on equivalent tests of reading, mathematics and writing approved in another state.

NOTE: OTHER TESTS MAY BE SUBSTITUTED IF DOCUMENTATION PROVIDED SHOWS CONTENT SUBSTANTIALLY EQUIVALENT TO CASE.

ADDITIONAL special requirements ALSO NEEDED for certification or certification plus degree programs for grades K-6 only:
--prior certification in early childhood education (K-4) or elementary education (K-6 or K-8) (required for K-6 option only);
--prior certification in early childhood education (K-4) or elementary education (K-6) or secondary education (5-9,7-15, 5-Adult) in biology, chemistry, English, general science, mathematics, physics, reading education/specialist, social studies (required for Gifted Education K-12 only).
OTHER special requirements for INTERNATIONAL STUDENTS only:
--TOEFL score: 550 or higher (paper); 215 or higher (computer); 80 or higher (Internet) (non-native English speakers ONLY) OR IELTS score: 6.5 or higher; the English language testing requirement will NOT be waived even for individuals enrolled in the WVU Intensive English Program;
--personal interview (by phone or in person) to verify proficiency in English (non-native English speakers ONLY).

NOTE: U.S. VISA CAN NOT BE ISSUED FOR ONLINE PROGRAMS BUT STUDENTS CAN ENROLL AS RESDIENTS IN THEIR HOME COUNTRIES. INDIVIDUALS WHO ARE LEGAL RESIDENT ALIENS MAY PARTICIPATE IN ONLINE PROGRAMS IF THEY VERIFY THEIR RESIDENT STATUS.

PROVISIONAL ADMISSION

PROVISIONAL admission** MAY be considered under SOME circumstances IF ALL other criteria are met:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.75+ out of 4.0
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.50+ out of 4.0 ONLY IF:
    a. undergraduate degree transcript documents minimum GPA of 3.0 in final 30 credits; OR
    b. graduate transcript documents at least 18 credits leading to teaching certification with minimum GPA 3.25; OR
    c. prior Master's degree in education or closely related area with minimum GPA 3.25

NOTE: UNDERGRADUATE COURSES ONLY ARE COUNTED IN CALCULATING THE GPA. APPLICANTS WITH GPAs MAY BE ABLE TO RAISE THEIR UNDERGRADUATE GPA BY TAKING ADDITIONAL UNDERGRADUATE COURSES BEFORE APPLYING.

NOTE: Provisional admission is contingent upon maintaining GPA of 3.0 and grades of A or B (and/or making up any identified deficiencies) within the first 9 credits or within 2 semesters, whichever comes first.

Applications submitted before the due date with all supporting documentation are eligible for EARLY ADMISSION. Applications that are incomplete will be rejected. Applicants who meet all regular admission criteria will be admitted automatically to the program. Applicants who meet criteria for provisional admission are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY admission requirement be waived. Dual enrollment is only permitted in exceptional circumstances.

The WVU Application for Graduate Admission is available at http://www.arc.wvu.edu/admissions/grad.html.
The Department of Special Education Program Application Form can be obtained at sped@mail.wvu.edu.
For assistance in completing applications, please contact sped@mail.wvu.edu or 304-293-6932.

APPLICATION SUBMISSION PROCESS

Applications for admission beginning FALL semester: **DUE AUGUST 1**
Applications for admission beginning SPRING semester: **DUE JANUARY 1**
Applications for admission beginning SUMMER semester: **DUE MAY 1**

Rolling admissions processing policy means that applications for admissions are processed and a decision is made as soon as all application materials are available, and applicants are notified immediately after the application review has been completed.

Master of Arts
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required		
A grade of C or higher is required in all graduate coursework		
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 601	Academic Interventions for Special Needs	3
SPED 603	Classroom/Behavior Management for Special Needs	3
SPED 609	Technology Applications for Special Needs	3
SPED 663	Collaborative-Consultative Inclusion Strategies	3
SPED 665	Mathematics for Special Needs	3
SPED 666	Reading for Special Needs	3
Select one of the following:		3
SPED 667	Elementary Content Methods	
SPED 668	Secondary Content Methods	
RDNG 622	Content Area Literacy Instruction	3
SPED 669	Culminating Practicum: Multicategorical Special Education	6
or SPED 680	Culminating Project	
Approved Electives		3
SPED 604	Characteristics/Educational Adaptations: Developmental Disabilities	
SPED 611	Early Learning Curriculum: Early Intervention	
SPED 630	Intro Low Vision/Blindness	
SPED 650	Learning Characteristics:Autism	
SPED 652	Educational Interventions: Autism	
SPED 661	Transition Planning and Programs for Students with Disabilities	
SPED 662	Differentiating Instruction for English Language Learners with Disabilities	
SPED 665	Mathematics for Special Needs	
SPED 666	Reading for Special Needs	
SPED 668	Secondary Content Methods	
SPED 675	Research to Practice	
Total Hours		**36**

NOTE: Students seeking certification for grades 5-Adult must also complete fifteen credits of coursework in at least one academic content area (biology, English, general Science, mathematics, or social studies).

Suggested Plan of Study (Full-time Study)

This plan is designed for full-time students who have no other major responsibilities or other students who wish to complete the program more quickly and believe they can manage the workload.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 601	3	SPED 663	3	SPED 500	3
SPED 603	3	SPED 665	3	SPED 609	3
SPED 666	3	Select one of the following:		RDNG 622	3
		SPED 667	3		
		SPED 668			
	9		**9**		**9**

Second Year

Fall	Hours
Select one of the following:	
SPED 669	6
SPED 680	

Elective	3
	9

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Suggested Plan of Study (Part-time Study)

This plan is designed for part-time students who are working full time and have other family responsibilities.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 601	3	SPED 603	3	SPED 500	3
SPED 666	3	Select one of the following			
		SPED 667	3		
		SPED 668			
	6		**6**		**3**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 663	3	RDNG 622	3	SPED 609	3
SPED 665	3	Elective	3		
	6		**6**		**3**

Third Year

Fall	Hours
Select one of the following:	
SPED 669	6
SPED 680	
	6

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Severe/Multiple Disabilities

Degree Offered

- Master of Arts with a major in Severe/Multiple Disabilities

The graduate program in Severe/Multiple Disabilities at WVU is designed to prepare professional educators to work with children, adolescents, and adults with moderate. severe or profound intellectual disabilities or such disabilities in combination with other impairments. This graduate level program prepares special education teachers and other professionals to engage in current research-based practices to provide high quality educational programs and services for students with significant disabilities on alternate assessment in elementary or secondary schools, or qualifying for developmental disability services in community-based programs for children or adults. WVU is fully accredited by the Higher Learning Commission (HLC), while the program is accredited approved as a teacher education program leading to teaching certification by the West Virginia Department of Education, accredited by the Council for Accreditation of Educator Preparation (CAEP) and nationally recognized by the Council for Exceptional Children.

The program offers three (3) options:

1. Certification only in Severe Disabilities Grades K-Adult (or the equivalent in other states);

2. Master's degree in Special Education plus certification in Severe Disabilities Grades K-Adult (or the equivalent in other states);

3. Master's degree only in Special Education with emphasis in Severe/Multiple Disabilities

PROGRAM OBJECTIVES

The Department of Special Education believes that children, adolescents, and adults with severe/multiple disabilities have a right to appropriate services designed to meet their unique needs in inclusive school and community settings; persons with disabilities must develop skills enabling them to participate as fully as possible in family and community life and to enjoy civil rights and personal freedoms as responsible citizens in a free society; and individuals and families should be empowered to make decisions about services and supports with sufficient support from service providers.

This program has been designed so that program graduates can accomplish the following learning goals:

1. provide high quality educational services to children, adolescents, and adults in inclusive environments in elementary, secondary and post-secondary schools and/or community disability services programs;

2. demonstrate knowledge and application of current evidence-practices as exemplified by reputable research and professional standards to deliver individualized instruction and other supports to promote academic learning, social skill development and functional skill acquisition to lead to outcomes of independent or supported living, productive employment and community participation;

3. collaborate with other professionals and agencies in delivery of services and engage in individual and systems advocacy for individuals and their families, and empower individuals and families to participate in program planning and decision making; and

4. reflect in and on practice and respond responsibly to the legal, ethical, social, and cultural issues encountered when working with individuals with gifts and talents and their families in today's world.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States and in approved international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.0 with a grade of A or B in ALL required courses. A grade of Incomplete will only be approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT earn a grade of A or B in a required course will be required to RE-TAKE THE COURSE to be eligible for the culminating practicum or culminating project.

Students who do NOT maintain a GPA of 3.0 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0.

Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.0 after the probationary period will be subject to DISMISSAL from the program.

Students who engage in academic dishonesty will be assigned 0 points for the assignment or exam for the first offense, an F for the course for the second offense, and dismissed from the program for the third offense.

Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

GRADUATION AND COMPLETION REQUIREMENTS

The MINIMUM time to complete most certification or degree programs in special education is:

-TWO (2) calendar years at the rate of SIX (6) credits per semester (part-time study – recommended for students who are working full time and/or have extensive family responsibilities)

-ONE AND ONE HALF (1.5) calendar years at the rate of NINE (9) credits per semester (full-time study- recommended for students who are not employed and/or have minimal family responsibilities.

The MAXIMUM time to complete required certification courses prior to practicum is TEN (10) years.

REQUIREMENTS FOR ADMISSION TO CULMINATING PRACTICUM: completion of all required courses, submission of passing scores on required Praxis Content Tests, and submission of completed Application for Practicum,

--Principles of Learning & Teaching K-6 (5622) with a score of 160 or 5-9 (5623) with score of 160 or 7-12 (5624) with score of 157 if NO prior certification

--Special Education: Core Knowledge and Severe/Profound Applications (5545) with score of 158

REGULAR ADMISSION

REGULAR admission is granted ONLY WHEN ALL these criteria are met:

Requirements for ALL graduate programs:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 3.00 out of 4.0;
--passing scores on a nationally standardized test of academic ability within a 10 year period: 850 (old) OR 280 (new) on the Graduate Record Exam (GRE) OR 400 on the Miller Analogies   Test (MAT) OR passing scores on the Praxis CASE (see below) OR passing scores on Praxis PPST (ONLY if already certified) OR Master's degree in education or a closely related area from a regionally accredited institution with minimum GPA of 3.25 OR professional certificate or license plus documented two (2) years consecutive teaching or clinical experience within the past 10 years verified by copy of certificate or license plus employer letter;
--Recommendation for Graduate Study (see Program Application Form) completed by a previous course instructor;

--Permission for Field/Clinical Experiences (see Program Application Form) completed by a school administrator.

NOTE: SCHOOL SYSTEMS MAY REQUIRE CRIMINAL BACKGROUND CHECKS AND FORMAL BOARD APPROVAL PRIOR TO PLACEMENT.

ADDITIONAL special requirements for ALL certification or certification plus degree programs only:
--passing scores on the Praxis Core Academic Skills for Educators (CASE) test within a 10 year period -- 156 on 5712, 162 on 5722, 150 on 5732; if GRE or MAT scores are provided as national test scores (see above); Core may be WAIVED ONLY IF evidence is provided of prior certification in some area of education OR a Master's degree from an accredited institution OR a composite score of 25 (26 if enhanced) on the American College Test (ACT) OR a score of 1035 (1125 if re-centered) on the Scholastic Achievement Test (SAT)) OR SAT combined Critical Reading and Math score of 1170 OR passing scores on equivalent tests of reading, mathematics and writing approved in another state.

NOTE: OTHER TESTS MAY BE SUBSTITUTED IF DOCUMENTATION PROVIDED SHOWS CONTENT SUBSTANTIALLY EQUIVALENT TO CASE.

ADDITIONAL special requirements ALSO NEEDED for certification or certification plus degree programs for grades K-6 only:
--prior certification in early childhood education (K-4) or elementary education (K-6 or K-8) (required for K-6 option only);
--prior certification in early childhood education (K-4) or elementary education (K-6) or secondary education (5-9,7-15, 5-Adult) in biology, chemistry, English, general science, mathematics, physics, reading education/specialist, social studies (required for Gifted Education K-12 only).
OTHER special requirements for INTERNATIONAL STUDENTS only:
--TOEFL score: 550 or higher (paper); 215 or higher (computer); 80 or higher (Internet) (non-native English speakers ONLY) OR IELTS score: 6.5 or higher; the English language testing requirement will NOT be waived even for individuals enrolled in the WVU Intensive English Program;
--personal interview (by phone or in person) to verify proficiency in English (non-native English speakers ONLY).

NOTE: U.S. VISA CAN NOT BE ISSUED FOR ONLINE PROGRAMS BUT STUDENTS CAN ENROLL AS RESDIENTS IN THEIR HOME COUNTRIES. INDIVIDUALS WHO ARE LEGAL RESIDENT ALIENS MAY PARTICIPATE IN ONLINE PROGRAMS IF THEY VERIFY THEIR RESIDENT STATUS.

PROVISIONAL ADMISSION

PROVISIONAL admission** MAY be considered under SOME circumstances IF ALL other criteria are met:
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.75+ out of 4.0
--Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.50+ out of 4.0 ONLY IF:
    a. undergraduate degree transcript documents minimum GPA of 3.0 in final 30 credits; OR
    b. graduate transcript documents at least 18 credits leading to teaching certification with minimum GPA 3.25; OR
    c. prior Master's degree in education or closely related area with minimum GPA 3.25

NOTE: UNDERGRADUATE COURSES ONLY ARE COUNTED IN CALCULATING THE GPA. APPLICANTS WITH GPAs MAY BE ABLE TO RAISE THEIR UNDERGRADUATE GPA BY TAKING ADDITIONAL UNDERGRADUATE COURSES BEFORE APPLYING.

NOTE: Provisional admission is contingent upon maintaining GPA of 3.0 and grades of A or B (and/or making up any identified deficiencies) within the first 9 credits or within 2 semesters, whichever comes first.

Applications submitted before the due date with all supporting documentation are eligible for EARLY ADMISSION. Applications that are incomplete will be rejected. Applicants who meet all regular admission criteria will be admitted automatically to the program. Applicants who meet criteria for provisional admission are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY admission requirement be waived. Dual enrollment is only permitted in exceptional circumstances.

The WVU Application for Graduate Admission is available at http://www.arc.wvu.edu/admissions/grad.html.
The Department of Special Education Program Application Form can be obtained at sped@mail.wvu.edu.

For assistance in completing applications, please contact sped@mail.wvu.edu or 304-293-6932.

APPLICATION SUBMISSION PROCESS

Applications for admission beginning FALL semester: **DUE AUGUST 1**
Applications for admission beginning SPRING semester: **DUE JANUARY 1**
Applications for admission beginning SUMMER semester: **DUE MAY 1**

Rolling admissions processing policy means that applications for admissions are processed and a decision is made as soon as all application materials are available, and applicants are notified immediately after the application review has been completed.

Master of Arts

MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required		
A grade of C or higher is required in all graduate coursework		
SPED 600	Instructional/Assistive Technology	3
SPED 604	Characteristics/Educational Adaptations: Developmental Disabilities	3
SPED 605	Family/Professional Collaboration: Developmental Disabilities	3
SPED 606	Communication and Literacy Intervention: Developmental Disabilities	3
SPED 607	Formal and Informal Assessment: Developmental Disabilities	3
SPED 620	Standards-Based Curriculum: Severe Disabilities	3
SPED 622	Instructional Programming: Severe Disabilities	3
SPED 625	Secondary/Adult Programs: Severe Disabilities	3
SPED 626	Positive Behavior Support:Severe Disabilities	3
SPED 629	Culminating Practicum: Severe/Multiple Disabilities	6
or SPED 680	Culminating Project	
Approved Electives		3
SPED 500	Legal/Educational Foundations: Special Education	
SPED 611	Early Learning Curriculum: Early Intervention	
SPED 612	Responsive Intervention: Early Intervention	
SPED 616	Behavior Guidance/Support: Early Intervention	
SPED 630	Intro Low Vision/Blindness	
SPED 635	Teaching Students With Low Vision/Blindness	
SPED 636	Teaching Students With Vision/Multiple Impairments	
SPED 650	Learning Characteristics:Autism	
SPED 652	Educational Interventions: Autism	
SPED 662	Differentiating Instruction for English Language Learners with Disabilities	
SPED 667	Elementary Content Methods	
SPED 668	Secondary Content Methods	
SPED 675	Research to Practice	
Total Hours		**36**

Suggested Plan of Study (Full-time Study)

This plan is designed for full-time students who have no other major responsibilities or other students who wish to complete the program more quickly and believe they can manage the workload.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 605	3	SPED 606	3	SPED 600	3
SPED 620	3	SPED 607	3	SPED 604	3
SPED 626	3	SPED 622	3	SPED 625	3
	9		**9**		**9**

Second Year

Fall	Hours
Select one of the following:	
SPED 629	6
SPED 680	
Elective	3
	9

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Suggested Plan of Study (Part-time Study)

This plan is designed for part-time students who are working full time and have other family responsibilities.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 605	3	SPED 606	3	SPED 600	3
SPED 620	3	SPED 622	3	SPED 625	3
	6		**6**		**6**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 626	3	SPED 607	3	SPED 604	3
				Elective	3
	3		**3**		**6**

Third Year

Fall	Hours
Select one of the following:	
SPED 629	6
SPED 680	
	6

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Special Education

Degrees Offered

- Master of Arts in Special Education
- Doctor of Education with a major in Special Education

MASTER OF ARTS IN SPECIAL EDUCATION

OVERVIEW

The graduate program in Special Education at WVU is designed to develop knowledge and skills related to working with children, adolescents and adults with exceptionalities in special education or disability services in schools or community agencies.

PROGRAM OBJECTIVES

The Department of Special Education believes that children, adolescents, and adults with exceptionalities deserve high quality programs and serves provided by master professionals who are well trained in legal, ethical, social and practical aspects of program development and delivery. This program has been designed so that program graduates can accomplish the following learning goals:

1. to recognize applications of federal and state laws and policies that govern services to individuals with exceptionalities in school and community programs;

2. acquire knowledge and skills to provide effective educational programs and other support services to children, adolescents and adults with exceptionalities at the preschool, elementary, secondary, and post-secondary level in or community settings;

3. to design, implement and evaluate accommodations, adaptations, and interventions that are grounded in current evidence-based practices documented to be successful in the professional literature; and

4. reflect in and on practice and respond responsibly to the legal, ethical, social, and cultural issues encountered when working with young children, children, adolescents and adults with an autism spectrum disorder in today's world.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States and in approved international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.0 with a grade of A or B in ALL required courses. A grade of Incomplete will only be approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT earn a grade of A or B in a required course will be required to RE-TAKE THE COURSE to be eligible for the culminating practicum or culminating project.

Students who do NOT maintain a GPA of 3.0 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0.

Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.0 after the probationary period will be subject to DISMISSAL from the program.

Students who engage in academic dishonesty will be assigned 0 points for the assignment or exam for the first offense, an F for the course for the second offense, and dismissed from the program for the third offense. Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

GRADUATION AND COMPLETION REQUIREMENTS

The MINIMUM time to complete most certification or degree programs in special education is:

-TWO (2) calendar years at the rate of SIX (6) credits per semester (part-time study – recommended for students who are working full time and/or have extensive family responsibilities)

-ONE AND ONE HALF (1.5) calendar years at the rate of NINE (9) credits per semester (full-time study- recommended for students who are not employed and/or have minimal family responsibilities.

The MAXIMUM time to complete required certification courses prior to practicum is TEN (10) years.

COURSE SEQUENCE FOR BOARD CERTIFIED BEHAVIOR ANALYST®. (BCBA®.) CREDENTIAL

The area of emphasis also serves as an approved course sequence that can be applied to the Board Certified Behavior Analyst**.** (BCBA®**.**) credential. Board certified Behavior Analysts are practitioner who ate credentialed to plan and conduct behavioral assessments, design, conduct and supervise behavior analytic interventions, and interpret outcomes of behavior analytic interventions for individuals with challenging behaviors. They are expected to apply evidence-based practices, consider ethical implications in designing and conducting interventions, and ensure that interventions are implemented with fidelity. National certification by the Behavior Analyst Certification Board (BACB) is now a requirement in most states and can lead to employment opportunities in public schools, developmental disabilities service agencies, private behavior services agencies, and private consulting/private practice. BACB-approved graduate level coursework in ABA is one of several requirements for earning this national certification (along with a qualifying exam and a minimum number of hours of supervised experience). To be eligible for the BCBA®, individuals must already hold a Master's degree or complete the coursework in conjunction with a Master's degree in behavior analysis, education, human services, health sciences, or another field related to behavior analysis. The intensive sequence of coursework is designed to help individuals prepare for the qualifying examination and supervised experience required during the national certification process. For more information about BCBA® credentialing, please review the content available on the organization's web site at http://www.bacb.com under the link for Becoming Certified.

DISCLAIMER: Completing the course sequence does not guarantee that the credential will be awarded; it is one of several requirements that must be met and reviewed by the Behavior Analyst Certification Board (BACB).

Doctor of Education

OVERVIEW

The graduate program in Special Education at WVU is designed to develop knowledge and skills related to working with children, adolescents and adults with exceptionalities in special education or disability services in schools or community agencies.

PROGRAM OBJECTIVES

This program is designed to prepare leadership personnel to assume roles and responsibilities in personnel preparation at colleges and universities or in professional development in public schools or disability service agencies. The program has been designed so that program graduates can accomplish the following learning goals:

1. provide instruction and supervision for preservice and inservice personnel;
2. design, conduct and disseminate experimental and applied research, engage in program development and evaluation, and participate in other scholarly activities;
3. provide professional service to colleges and universities, local schools and agencies, regional and state education agencies, and national organizations;
4. interpret the knowledge base in special education and community services with respect to policies, practices, issues, and trends; and
5. use new technologies to enhance personal productivity and improve preservice and inservice preparation programs for prospective and practicing professionals.

PROGRAM DELIVERY FORMAT

This program is offered entirely ONLINE throughout the United States; it is NOT available in international locations.

RETENTION REQUIREMENTS

To maintain ACTIVE student status, students must enroll in at least one (1) course during the effective term of admission and also at least one (1) course every two (2) years. Students who fail to enroll within a two (2) year period will be converted to inactive status and will be required to reapply to the university and program and meet any additional new requirements in effect at that time. Students are expected to comply with all academic and conduct policies as outlined in the WVU Graduate Catalog, in the WVU Student Handbook, and on the Department of Special Education website.

Retention in the program and/or graduation in ANY program in the College of Education and Human Services is based on SATISFACTORY PROGRESS or maintaining a GPA of 3.25 with a grade of A or B in ALL required courses. A grade of Incomplete is only approved for emergency situations; all requirements must be completed BEFORE the end of the next academic semester. Students who DO NOT clear the grade of Incomplete by the deadline will be assigned a grade of FAIL by the instructor immediately after the due date.

Students who do NOT maintain a GPA of 3.25 (includes courses with grade of Incomplete) in a given semester MAY be placed on PROBATION and permitted one (1) additional semester to increase the GPA to 3.0. Students whose GPA is too low to be raised by a probationary period OR who do NOT obtain a GPA of 3.25 after the probationary period will be subject to DISMISSAL from the program. Students who engage in academic dishonesty will be assigned an F for the course for the first offense and dismissed from the program for the second offense. Students dismissed from a program will NOT be permitted to re-apply to ANY special education program.

RESIDENCY REQUIREMENT

WVU requires ALL students to complete one (1) academic year in residency as part of the requirements for any doctoral degree. In this online program, an alternative residency requirement will be satisfied by completing the professional practice experiences in local public schools and colleges/ universities over a two (2) year period.

Applicants interested in one of the program options should review the detailed information provided at http://specialed.wvu.edu/ or contact sped@mail.wvu.edu for a brochure and application or an update on availability of specific courses.

ADMISSIONS TO THE MASTER'S DEGREE IN SPECIAL EDUCATION

REGULAR ADMISSION

REGULAR admission is granted ONLY WHEN ALL these criteria are met:

Requirements for ALL graduate programs:

- Bachelor's degree from a regionally accredited institution with minimum GPA* of 3.00 out of 4.0;
- Passing scores on a nationally standardized test of academic ability within a 10 year period: 850 (old) OR 280 (new) on the Graduate Record Exam (GRE) OR 400 on the Miller Analogies Test (MAT) OR passing scores on the Praxis CASE (see below) OR passing scores on Praxis PPST (ONLY

if already certified) OR Master's degree in education or a closely related area from a regionally accredited institution with minimum GPA of 3.25 OR professional certificate or license plus documented two (2) years consecutive teaching or clinical experience within the past 10 years verified by copy of certificate or license plus employer letter;

- Recommendation for Graduate Study (see Program Application Form) completed by a previous course instructor;

NOTE: OTHER TESTS MAY BE SUBSTITUTED IF DOCUMENTATION PROVIDED SHOWS CONTENT SUBSTANTIALLY EQUIVALENT TO CASE.

PROVISIONAL ADMISSION

PROVISIONAL admission** MAY be considered under SOME circumstances IF ALL other criteria are met:

- Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.75+ out of 4.0
- Bachelor's degree from a regionally accredited institution with minimum GPA* of 2.50+ out of 4.0 ONLY IF:
  a. undergraduate degree transcript documents minimum GPA of 3.0 in final 30 credits; OR
  b. graduate transcript documents at least 18 credits leading to teaching certification with minimum GPA 3.25; OR
  c. prior Master's degree in education or closely related area with minimum GPA 3.25

NOTE: UNDERGRADUATE COURSES ONLY ARE COUNTED IN CALCULATING THE GPA. APPLICANTS WITH GPAs MAY BE ABLE TO RAISE THEIR UNDERGRADUATE GPA BY TAKING ADDITIONAL UNDERGRADUATE COURSES BEFORE APPLYING.

NOTE: Provisional admission is contingent upon maintaining GPA of 3.0 and grades of A or B (and/or making up any identified deficiencies) within the first 9 credits or within 2 semesters, whichever comes first.

Applications submitted before the due date with all supporting documentation are eligible for EARLY ADMISSION. Applications that are incomplete will be rejected. Applicants who meet all regular admission criteria will be admitted automatically to the program. Applicants who meet criteria for provisional admission are ONLY considered IF additional openings remain at that point. Under NO circumstances will ANY admission requirement be waived. Dual enrollment is only permitted in exceptional circumstances.

The WVU Application for Graduate Admission is available at http://www.arc.wvu.edu/admissions/grad.html.
The Department of Special Education Program Application Form can be obtained at sped@mail.wvu.edu.
For assistance in completing applications, please contact sped@mail.wvu.edu or 304-293-6932.

APPLICATION SUBMISSION AND REVIEW PROCESS

Applications for admission beginning FALL semester: **DUE AUGUST 1**
Applications for admission beginning SPRING semester: **DUE JANUARY 1**
Applications for admission beginning SUMMER semester: **DUE MAY 1**

Rolling admissions processing policy means that applications for admissions are processed and a decision is made as soon as all application materials are available, and applicants are notified immediately after the application review has been completed.

ADMISSIONS TO THE DOCTORAL DEGREE IN SPECIAL EDUCATION

Admissions criteria are based on qualifications associated with academic success in doctoral study as well as qualifications that candidates applying for leadership positions are expected to have when seeking employment as faculty at colleges and universities (personnel preparation option). In recognition of the fact that NO SINGLE CRITERION is an adequate predictor of satisfactory completion of a program of study or subsequent success in a professional career, faculty endorse MULTIPLE CRITERIA for admission to this doctoral program. Requirements for admission are weighed using a +, 0, - system in judging each applicant and are considered necessary but not sufficient eligibility criteria for admission.

REGULAR ADMISSION

Admission to the program with REGULAR student status is based upon consideration of how well each applicant meets ALL the criteria outlined below.

Every applicant will be reviewed to determine the extent to which they meet these criteria:
*Bachelor's degree from a regionally accredited institution with minimum GPA of 3.0 out of 4.0
*Masters degree from a regionally accredited institution in Special Education or Gifted Education with a minimum GPA of 3.25 out of 4.0
*Graduate Record Exam (GRE) TOTAL (verbal plus quantitative) score within a 7 year period of 1000 total (old) or 300 (new) with minimum verbal 450 (old) or 155 (new) and minimum analytical 4.5
*documentation of state teaching certification in some area of special education or gifted education
*MINIMUM of two (2) full years of documented experience providing instruction as a public school teacher of students with exceptionalities in grades PK-12
*personal goal statement illustrating a lifelong commitment to excellence in special education and/or gifted education and articulating specific research interests and clear career goals focused on a leadership position in special education in special education
*academic writing sample documenting knowledge of special education/gifted education, skill in organizing and expressing ideas, and appropriate citations of current sources in the professional literature

*three (3) letters of reference supporting academic ability AND professional commitment from professionals currently working in special education or gifted education; the first letter must be from an individual with a doctoral degree in special education or gifted education with direct knowledge of the applicant's academic achievement during the Master's degree program; the second letter must be from an employment supervisor who can verify job performance during the most recent employment as special educator or gifted educator; the third letter should be from another professional
NOTE: ALL letters should address leadership potential, work habits and ethics, and interpersonal skills

Applicants who meet the criteria specified above will also be required to undergo:
*a personal interview demonstrating knowledge of the field and communication and interpersonal skills
*a proctored writing sample to verify ability to express ideas with logic, clarity and correct grammar

Applicants who meet all criteria are NOT automatically granted admission to the program. Admission is contingent upon number of applicants, number of current students, and availability of graduate faculty.

PROVISIONAL ADMISSION

Admission to the program with PROVISIONAL student status will be considered for individuals who meet most but not all of the criteria outlined above; however, students admitted provisionally may be required to complete additional requirements such as completing additional courses or practicum experiences.

Individuals from international areas can NOT obtain a U.S. visa to enroll in an online program and this online doctoral program is NOT currently available in international areas.

Students who are admitted but fail to enroll in that semester must re-apply for admission.

The WVU application form can be submitted online at http://www.arc.wvu.edu/admissions/grad.html.
The Doctoral Program Application Form can be obtained by contacting sped@mail.wvu.edu.

For assistance in completing applications, please contact sped@mail.wvu.edu or 304-293-6932.

APPLICATION SUBMISSION AND REVIEW PROCESS

Each applicant will submit an application and supporting documentation by the following dates:

Requests for PRIORITY admission beginning FALL semester: DUE JANUARY 15
Requests for FINAL* admission beginning FALL semester: DUE JULY 1

Soon after each deadline, the Doctoral Admission Committee will review application files and meet to discuss applicants. Decisions will be based on applicant qualifications, program openings, and available faculty.

ALL applicants will be notified of the committee's decision in writing by the following dates:
Decisions for PRIORITY admissions for FALL semester: MAILED APRIL 1
Decisions for FINAL* admissions for FALL semester: MAILED AUGUST 1

*FINAL admission dates are NOT applicable if all available program openings have already been filled.

Master of Arts
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

A grade of C or higher is required in all graduate coursework		
SPED 500	Legal/Educational Foundations: Special Education	3
SPED 675	Research to Practice	3
Area of Emphasis courses		18
Approved Electives (SPED and related area courses)		6
SPED 680	Culminating Project	6
Total Hours		**36**

Suggested Plan of Study (Full-time Study)

This plan is designed for full-time students who have no other major responsibilities or other students who wish to complete the program more quickly and believe they can manage the workload.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 653	3	SPED 654	3	SPED 656	3
SPED 500	3	SPED 655	3	SPED 657	3
SPED 713	3	SPED 675	3	Elective	3
	9		**9**		**9**

Second Year

Fall	Hours
SPED 680	6
Elective	3
	9

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

Suggested Plan of Study (Part-time Study)

This plan is designed for part-time students who are working full time and have other family responsibilities.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 653	3	SPED 654	3	SPED 656	3
SPED 713	3	SPED 655	3	SPED 657	3
	6		**6**		**6**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 500	3	SPED 675	3	SPED 680	6
Elective	3	Elective	3		
	6		**6**		**6**

Total credit hours: 36

NOTE: Courses may be completed in any order (except culminating practicum or project, which must be completed after all other required courses are completed) and students may start the program in any semester.

APPLIED BEHAVIOR ANALYSIS AREA OF EMPHASIS

A minimum cumulative GPA of 3.0 is required

A grade of C or higher is required in all graduate coursework		
SPED 653	Professional Ethics for Behavior Analysts	3
SPED 654	Foundations and Philosophies of Applied Behavior Analysis	3
SPED 655	Naturalistic and Functional Analyses of Behavior	3
SPED 656	Methods in Behavioral Intervention and Treatment	3
SPED 657	Systems for Behavior Change/Team Building/Case Management	3
SPED 713	Designing Single Case Research	3
Total Hours		**18**

Doctor of Education
MAJOR REQUIREMENTS

Area of emphasis coursework	73
Dissertation Proposal	
Dissertation	
Dissertation Defense	
Total Hours	**73**

PROGRAM OF STUDY

Programs are designed by the doctoral student, the student's advisor, and the doctoral committee to meet the student's career goals. Programs of study comply with all applicable institutional requirements, but typically they include coursework in excess of the minimum college requirements to meet these goals. The leadership training provided through this program draws on the many available strengths and resources of a major university. Development of research skills is a major focus of the program, along with advanced training related to the development, education, and rehabilitation of persons with exceptionalities. Students may complete coursework in a number of programs and colleges in order to take advantage of available interdisciplinary resources. The program encourages study and involvement with faculty from a broad range of disciplines in order to best prepare doctoral students to meet their individual career aspirations as leaders in special education and disability services.

RETENTION

Retention in any program requires completion of all required courses with a grade of A or B in all required courses, a passing score on all required performance assessments, and maintenance of an overall 3.25 GPA. Students who fail to maintain that average will be placed on academic probation and must achieve that average within the next semester or risk being dismissed from the program.

All students are expected to pass a comprehensive examination designed in cooperation with doctoral program committee members and administered after they have completed all required courses to be admitted to candidacy for the doctoral degree.

All students are expected to propose, conduct, and defend original research approved by the doctoral program committee to satisfy the requirements for the doctoral degree.

PERSONNEL PREPARATION IN SPECIAL EDUCATION AREA OF EMPHASIS

A minimum cumulative GPA of 3.25 is required

A grade of C or higher is required in all graduate coursework		
SPED 770	Policy Analysis and Development	3
SPED 771	Personnel Preparation Strategies	3
SPED 772	Professional Writing and Grant Writing	3
SPED 773	Professional Development Models	3
SPED 774	Analysis and Design of Research	3
SPED 779	Contemporary Issues and Trends	3
SPED 781	Orientation to Doctoral Study	1
SPED 782	Professional Practice in Systems Advocacy	1
SPED 783	Professional Practice in College Instruction	1
SPED 784	Professional Practice in Clinical Supervision	1
SPED 785	Professional Practice in Empirical Research	1
SPED 786	Professional Practice in Service Activities	1
SPED 769	Faculty Career Development	1
Research Core		15
Educational Foundations		6
Minor Area Courses		18
SPED 767	Professional Product Preparation	1
SPED 768	Prospectus Development	1-6
SPED 797	Research	6
SPED 798	Thesis or Dissertation	1-6
Total Hours		**73-83**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 771	3	SPED 779	3	SPED 782	1
SPED 781	1	SPED 786	1	EDP 613	3
EDP 612	3	EDP 700	3	SCFD 615	3
	7		**7**		**7**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
SPED 770	3	SPED 773	3	SPED 783	1

SPED 783		1 SPED 784		1 EDP 618		3
SPED 713		3 EDP 703		3 EDP 600		3
		7		**7**		**7**

Third Year

Fall		Hours Spring		Hours Summer		Hours
SPED 774		3 SPED 772		3 SPED 768		1-6
SPED 785		1 SPED 785		1 SPED 767		1
Elective		4 Elective		3		
		8		**7**		**2-7**

Fourth Year

Fall		Hours Spring		Hours	
SPED 797		6 SPED 797		6	
SPED 769		1 SPED 798		1-6	
		7		**7-12**	

Total credit hours: 73-83

NOTE: Courses may be completed in any order (except SPED 767, 768, 797 and 798, which must be completed after all other required courses are completed).

Department of Communication Sciences and Disorders

The undergraduate program in speech pathology and audiology provides a thorough understanding of the basic processes involved in speech, swallowing, hearing, and language in addition to a broad overview of communication disorders in preparation for professional graduate study in speech-language pathology or audiology.

The Master of Science (M.S.) and Doctor of Audiology (Au.D.) programs in the Department of Communication Sciences and Disorders address the knowledge and skills that prepare graduates to excel in the professions of speech-language pathology and audiology, respectively. Both graduate programs meet the clinical and academic requirements for professional licensure and certification, and both are accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association. Graduates of the professional programs are well-prepared to diagnose and treat the full range of communicative disorders in all age groups and to practice competently as speech-language pathologists and audiologists in a wide range of clinical settings.

The Doctor of Philosophy (Ph.D.) in Communication Sciences and Disorders is a customized post-professional program that prepares audiologists and speech-language pathologists to become effective teachers and researchers with an area of expertise within *hearing science and disorders* or within *speech and language sciences and disorders*.

The Department of Communication Sciences and Disorders provides professional services to the public through our on-campus clinics. The West Virginia University Speech Center offers a wide variety of speech-language pathology services to children and adults, whereas the West Virginia University Hearing Center is well-equipped to provide complete diagnostic and rehabilitative audiology services. Fully staffed by professional supervisors, these state-of-the-art clinical facilities help meet the health care needs of the community, while supporting the professional education of the department's graduate students.

Audiology

Doctor of Audiology (Au.D) Program

The Doctor of audiology (Au.D.) program at West Virginia University was inaugurated in 2004 when the clinical doctorate became the entry-level degree for the profession of audiology. The program consists of 116 credit hours of academic coursework and clinical practicum experiences, including a fourth year residency. Graduates must demonstrate acquisition of all knowledge and skills delineated in the Standards for the Certificate of Clinical Competence in Audiology (CCC-A). The Au.D. program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association.

Students are expected to become familiar with the 2012 Standards for the Certificate of Clinical competence in Audiology. Additional information regarding graduate student expectations is outlined in the current edition of the *Graduate Student Handbook for Audiology*.

PROGRAM OBJECTIVES

The Au.D. program has been designed to provide a firm understanding of the normal processes of hearing and communication with the academic and clinical preparation to diagnose and treat the full range of hearing disorders in all age groups. Our goal is to prepare audiologists who are competent to work in a wide variety of clinical settings, including hospitals, clinics, special treatment centers, schools, industry, and private practice. The program's

intent is to provide the knowledge and skills necessary to practice audiology autonomously in an effective, ethical manner. To this end, the following goals have been established by the Department of Speech Pathology and Audiology at West Virginia University:

1. Graduates will demonstrate mastery of knowledge and skills necessary to practice audiology in diverse settings encompassing all of the many facets of our profession.
2. Graduates will demonstrate an ability to work autonomously, using sound judgment in a competent and ethical manner.
3. Graduates will contribute to the profession and their community via active membership in professional organizations, scholarly activity, and taking the initiative in public education concerning hearing and balance disorders.
4. Graduates will be employed as audiologists serving the hearing impaired populaces, industry, and the medical community with special emphasis in underserved areas of our state.

ADMISSION

All applicants for the Au.D. program must have a baccalaureate degree or equivalent from a regionally accredited institution of higher learning and present the following by the *January 15* deadline:

1. An undergraduate major in speech pathology and audiology *or* communication sciences and disorders
   [*In some cases, applicants without preparatory coursework in speech-language pathology and audiology may be considered for graduate admission, but the program of study will require completion of additional coursework, which may extend the length of the program*];
2. One official transcript from each college attended;
3. An overall undergraduate grade point average (GPA) of at least 3.0 (A = 4.0);
4. An official copy of the applicant's Graduate Record Examination (GRE) scores
   [*GRE Scores must be submitted to CSDCAS using the ETS Designated Institution code 6934*];
5. Proof of English language proficiency for any applicant whose first language is not English
   [*A score of at least 213 on the computer-based TOEFL, 550 on the paper-based TOEFL, or 79 on the internet-based TOEFL, or a score of at least 6.5 on the IELTS is required of applicants whose first language is not English*];
6. Three letters of recommendation which reflect the applicant's academic and clinical abilities, potential for success in graduate studies, and personal qualities predictive of professional success as an audiologist
7. A personal statement describing the applicant's goals, aspirations, and motivation for pursuing professional doctoral education in audiology

Applications for the Doctor of Audiology program must be submitted through through the *Communication Sciences & Disorders Centralized Application Service* (CSDCAS). To access CSDCAS, visit https://portal.csdcas.org. To be considered for admission an application must be "complete" on or before January 15. A complete application is one that has been e-submitted and all transcripts, scores, statement, letters of recommendation, and payments have been received by CSDCAS and attached to the application. Documents should be sent several weeks prior to the January 15 deadline to ensure that items arrive on time. The timeliness of the application is considered the responsibility of the applicant.

Applicants subsequently *recommended for acceptance* will then be instructed to submit a WVU Graduate application with the WVU application fee and official transcripts that include final fall grades to complete the admission process. It is only possible for admitted students to begin the Au.D. program in the fall semester.

Doctor of Audiology
MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required	
A minimum grade of B or higher is required in all graduate coursework	
CSAD courses and associated laboratories	64
Coursework in related areas of counseling, research methods, and business	6
Electives	3
Clinical Practicum	19
Clinical residency	24
Completion of ASHA-approved practicum experience equivalent to a minimum of twelve months of full-time supervised experience	
Passing score on Praxis exam in Audiology	
Scholarly work approved by the student's advisory committee submitted in written form	
Total Hours	**116**

RESIDENCY REQUIREMENTS

All students in the Au.D. program must be full-time in residence during the program of study. The minimum duration for graduate study is eleven consecutive semesters (including summer sessions). Part-time students are not eligible for admission to the Au.D. degree program.

Communication Sciences and Disorders

Doctor of Philosophy (Ph.D.) Program

The Ph.D. degree program provides a rigorous course of study along with mentored research and teaching experiences to enable students to become high-quality researchers and serve effectively as leaders in the discipline of communication sciences and disorders. Graduates of the program are prepared to assume careers as researchers and scholars at colleges, universities, hospitals, industrial settings, and research facilities. The program is not designed to provide an advanced clinical degree. Rather, the Ph.D. degree will be conferred in recognition of the attainment of the highest academic excellence and productive scholarship. As doctoral programs are an integral step on a life-long journey of learning and scholarship, the Department of Speech Pathology and Audiology has established the Ph.D. program in Communication Sciences and Disorders to support students in developing knowledge, judgment, skills, and attitudes to facilitate their growth and learning throughout their careers as researchers, scholars, and teachers.

PROGRAM OBJECTIVES

The primary objective of the Ph.D. degree program is to assist students to develop in-depth mastery of subject matter in a narrow and specific area within the broad discipline of communication sciences and disorders and, simultaneously, to broaden one's knowledge base in other fields related to the special area of interest, such as health, linguistics, education, and the physical, biological, and socio-behavioral sciences. With the intent to prepare high-quality researchers to serve as leaders in the discipline of communication sciences and disorders, graduates of the program will be prepared to assume independent careers as researchers and scholars at colleges, universities, and hospitals, as well to become key personnel at leading private and public research institutes. *Specifically, the objectives of the Ph.D. program include:*

1. The development of independent research skills through sequential experiences that involve the planning and conduct (or implementation) of research projects, the writing of grants, and the dissemination of research findings through the presentation of papers at scientific and other professional conferences and publication in peer-reviewed journals in the discipline;
2. The preparation of academicians equipped to teach the university students of tomorrow through guided coursework in educational methods and evaluation, instructional technologies including online course delivery, international and intercultural experiences, and classroom practice; and
3. The acquisition of advanced knowledge and understanding of a specialized area with the ability to apply this understanding to research, teaching, and scholarship.

A HIGHLY INDIVIDUALIZED EXPERIENCE

The Ph.D. program in Communication Sciences and Disorders is a highly individualized experience that includes prescribed and selected coursework designed to meet the objectives of the program, ongoing participation in research and other scholarly activities, and the independent completion of a dissertation under the mentorship of a research advisor. As such, the time needed to complete the program will vary to ensure sufficient time for the building of adequate teaching and research skills and a creditable curriculum vitae. Some diligent and highly motivated students may be able to complete their work in less time, whereas others may require more time to achieve independence as a scholar and researcher.

ADMISSION AND PERFORMANCE STANDARDS

A Ph.D. Advisory Committee composed of one member from each of the major areas of study will screen the applications and make admissions decisions based on the following criteria, in consultation with the faculty in their area of emphasis. In particular, applicants must have the following:

1. An entry-level clinical degree for the profession of speech-language pathology (i.e., M.A. or M.S.) or audiology (i.e., M.A., M.S., or Au.D.)
2. A cumulative grade point average of 3.25 or higher (A=4.0) upon completion of a graduate degree
3. A score at or above the fiftieth percentile on the Verbal and Quantitative sections and a score of at least 4.0 on the Analytical Writing section on an official copy of the Graduate Record Examination (GRE)
4. A TOEFL score of at least 79 (internet version), 213 (computer-based), 550 (paper-based) or an IELTS score of at least 6.5, if English is not the applicant's native language
5. An interview with the Ph.D. advisory committee that will include the writing of an essay on an assigned topic to be evaluated by program faculty
6. Three letters of recommendation, two of which must come from previous instructors or professors who can comment meaningfully on the applicant's potential for Ph.D. study
7. A personal statement that addresses the applicant's professional goals within *speech and language sciences and disorders* or within *hearing science and disorders*

Doctor of Philosophy (Ph.D.) Program

PROGRAM REQUIREMENTS

RESIDENCY COMMITMENT

The Ph.D. degree program in communication sciences and disorders requires a full-time commitment. Each student who is accepted into the program works on a daily basis with faculty who will help to hone skills and to sharpen the research focus. Furthermore, each student will be expected to conduct

research and pursue scholarship activities that will inform classroom teaching and lead to meaningful presentations and publications. Consequently, applicants are required to sign a statement confirming their commitment to full-time status before they may be admitted to the program.

CURRICULUM

Upon admission to the Ph.D. program, students enroll in a series of required courses in the doctoral core, in the research core, and in the area of specialization. Ph.D. students are expected to maintain a cumulative GPA of at least 3.25 each semester. Upon completion of coursework, students must successfully complete written and oral comprehensive examinations to be eligible for candidacy.

Ph.D. students enroll in a minimum of six credits of independent study, extending over at least three semesters, under the supervision of their mentor. Typically, the focus of the independent study will be on the development of independent research skills through involvement with ongoing or forthcoming projects in the mentor's research program. Each student will be expected to present at one or more scientific meetings and submit at least two manuscripts for publication in relevant peer-reviewed journals before graduating.

Speech Pathology

Degree Offered:

- Master of Science with a major in Speech Pathology

Master of Science (M.S.) Program in Speech Pathology

The purpose of the Master of Science degree program in Speech Pathology is to provide aspiring professionals with a firm understanding of the normal processes of speech, language, and hearing; the competence to diagnose and treat the full range of communicative disorders in all age groups; and the opportunity to practice in a wide variety of clinical settings, including schools, hospitals, clinics, special treatment centers, and private practice. The M.S. in speech-language pathology, therefore, is a professional program that emphasizes the knowledge and skills requisite for competent and ethical clinical practice. Graduation thus depends on completion of all academic requirements and the demonstration of sound clinical expertise. The M.S. in speech pathology program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association. Students are expected to become familiar with the Standards for the Certificate of Clinical Competence in Speech-Language Pathology. Additional information regarding graduate student expectations is outlined in the current edition of the *Graduate Student Handbook for Speech-Language Pathology*.

ADMISSION

All applicants for the M.S. in Speech Pathology Program must have a baccalaureate degree or equivalent from a regionally accredited institution of higher learning, and present the following by the *January 15* deadline:

1. An undergraduate major in speech pathology and audiology or communication sciences and disorders
   [*In some cases, applicants without preparatory coursework in speech pathology and audiology (communication sciences and disorders) may be considered for graduate admission, but the program of study will require two additional semesters of added coursework*];
2. One official transcript from each college attended;
3. An overall undergraduate grade point average (GPA) of at least 3.0 (A = 4.0);
4. An official copy of the applicant's Graduate Record Examination (GRE) scores
   [*GRE Scores must be submitted to CSDCAS using the ETS Designated Institution code 6934*];
5. Proof of English language proficiency for any applicant whose first language is not English
   [*A score of at least 213 on the computer-based TOEFL, 550 on the paper-based TOEFL, or 79 on the internet-based TOEFL, or a score of at least 6.5 on the IELTS is required of applicants whose first language is not English*];
6. Three letters of recommendation that reflect the applicant's academic and clinical abilities, potential for success in graduate studies, and personal qualities predictive of professional success as a speech-language pathologist; and
7. A personal statement that addresses the applicant's goals for professional graduate study in speech-language pathology

Applications for the Master of Science program must be submitted through through the *Communication Sciences & Disorders Centralized Application Service* (CSDCAS). To access CSDCAS, visit https://portal.csdcas.org. See http://csd.wvu.edu for details. To be considered for admission, an application must be "complete" on or before January 15. A complete application is one that has been e-submitted and all transcripts, scores, statement, letters of recommendation, and payments have been received by CSDCAS and attached to the application. Documents should be sent several weeks prior to the January 15 deadline to ensure that items arrive on time. The timeliness of the application is considered the responsibility of the applicant.

All applicants being considered for admission will be provided with a personal interview with members of the CSD faculty. Applicants subsequently *recommended for acceptance* will then be instructed to submit a WVU Graduate application with the WVU application fee and official transcripts that include final fall grades to complete the admission process. It is only possible for admitted students to begin the M.S. program in the fall semester. Part-time students are not eligible for admission.

Master of Science

MAJOR REQUIREMENTS

A minimum cumulative GPA of 3.0 is required

CSAD 604	Seminars Clinical Practice 1	1
CSAD 605	Seminars Clinical Practice 3	1
CSAD 606	Seminars Clinical Practice 2	1
CSAD 607	Seminars Clinical Practice 4	1
CSAD 608	Audiological Foundations	2
CSAD 610	Advanced Practice Speech-Language Disorders 1	2
CSAD 611	Advanced Practice/Audiology 1	1
CSAD 612	Advanced Practice Speech-Language Disorders 2	2
CSAD 614	Advanced Practice Speech-Language Distorders 3	2
CSAD 616	Advanced Practice Speech-Language Disorders 4	3
CSAD 620	Neurophysics of Speech and Language	3
CSAD 622	Advanced Voice Disorders	3
CSAD 624	Phonological Disorders	3
CSAD 625	Child Language and Literacy Disorders	3
CSAD 626	Experimental Phonetics	3
CSAD 628	Advanced Stuttering Disorders	3
CSAD 630	Adult Neurogenic Communication Disorders	3
CSAD 632	Craniofacial Anomalies	3
CSAD 636	Augmentative/Alternative Communication	3
CSAD 660	Neuropathology of Speech and Language	3
CSAD 662	Dysphagia	3
CSAD 664	Diagnostics in Speech Language Pathology	3
CSAD 693	Special Topics	3
CSAD 718	Externship in Speech Pathology/Audiology	9
Minimum of 400 clock hours of supervised practicum, including at least 25 hours of clinical observation and 375 hours of direct patient/client contact		
Professional Portfolio		
Total Hours		**64**

RESIDENCY REQUIREMENTS

All students in the M.S. program must be full-time in residence during the program of study. The minimum duration for graduate study is five consecutive semesters (including summer sessions).

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
CSAD 604	1	CSAD 606	1	CSAD 605	1
CSAD 610	2	CSAD 612	2	CSAD 608	2
CSAD 620	3	CSAD 625	3	CSAD 614	2
CSAD 624	3	CSAD 626	3	CSAD 632	3
CSAD 664	3	CSAD 628	3	CSAD 636	3
CSAD 693	3	CSAD 630	3		
	15		**15**		**11**

Second Year

Fall	Hours	Spring	Hours
CSAD 607	1	CSAD 718	9
CSAD 611	1		
CSAD 616	3		
CSAD 622	3		

CSAD 662	3	
CSAD 660	3	
14		**9**

Total credit hours: 64

Department of Learning Sciences and Human Development

Degrees Offered

- Master of Arts in Educational Psychology (EdP) with areas of emphasis in the following: (1) Educational Psychology, (2) Evaluation and Research, (3) Child Development and Family Studies
- Doctor of Education in Educational Psychology (EdP)
- Master of Arts in Instructional Design and Technology (IDT)
- Doctor of Education in Instructional Design and Technology (IDT)
- Doctor of Philosophy in Education with areas of emphasis in the following: (1) Learning, Instructional Design, and Technology; and (2) Human Development and Family Studies

The Department of Learning Sciences and Human Development is dedicated to learning across the life span. Encompassing a diverse spectrum of education practices and human services, the department houses programs in child development and family studies, educational psychology, instructional design and technology, and program evaluation and research. Faculty and students alike master technology to share new ways to learn, teach, research, and interact in the community. With a focus on global awareness, graduates are culturally competent and develop ethical foundations to maintain integrity in their academics and professions and simultaneously inspire others.

ADMINISTRATION

CHAIR

- Reagan Curtis - Ph.D.

Educational Psychology

Degrees Offered

- Master of Arts in Educational Psychology (EdP)
    Areas of Emphasis in:
    Educational Psychology
    Evaluation and Research
    Child Development and Family Studies
- Doctor of Education in Educational Psychology (EdP)

Master's Program General Description

The Educational Psychology Program in the College of Education and Human Services offers opportunities for graduate study and research leading to the Master of Arts (MA) degree. Completion of the program develops competencies related to learning, development, instruction, and program evaluation and research. The principal goal of the program is the education and training of professionals who will serve teaching and learning environments with responsibilities related to instruction, service, and research. Professional preparation focuses on one of the following three areas of emphasis: General Educational Psychology, Program Evaluation and Research, or Child Development and Family Studies.

Each student plans the program with the adviser and thesis/project committee using the specific guidelines of the student's area of emphasis to achieve their professional development goals. In addition to the general requirements of the University and the College of Education and Human Services, there is a core of courses and supporting competencies required of all graduate students in the program, which vary depending on the area of emphasis.

Educational Psychologists function in a variety of settings. The program is dedicated to the preparation and placement of competent Educational Psychologists for positions in: educational agencies at local, state, and federal levels; public and private human service centers; medical centers; business and industrial settings; and other settings. Graduates of the program are also well prepared to continue their education and professional development in doctoral programs in Educational Psychology and related disciplines.

Areas of Emphasis

General Educational Psychology

The General Educational Psychology Area of Emphasis is designed primarily for individuals who want to pursue general preparation in learning, development, measurement, and research with the possibility of selecting additional coursework to create a focus that supports their professional development goals. The Learning Goals for the General Educational Psychology emphasis of the M.A. in Educational Psychology are to advance students' knowledge and critical thinking relative to learning, development, measurement, and research. A further goal of the program is for students to acquire a deeper understanding of the scholarly basis of this knowledge through coursework and completion of a project or research-based thesis. All students are required to design and conduct either 1) a project that solves a practical problem in learning or development or 2) a research thesis that investigates a topic or relevance to learning or development.

Evaluation and Research

The Evaluation and Research Area of Emphasis (ERC) is designed primarily for individuals with interest in conducting research and evaluation projects for private and public educational organizations and agencies.The Learning Goals for the ERC emphasis seek to advance students' knowledge and critical thinking relative to the field of program evaluation and research. A further goal is for students to acquire proficiency in quantitative, qualitative, and mixed-methods inquiry, providing students with a breadth of methods to study varied educational, programmatic, and social research questions. All students will be required to design and conduct at least one full program evaluation during the course of their studies. Additionally, all students will design and conduct a research or evaluation thesis.

The graduates of the Program Evaluation and Research Area of Emphasis will be able to: demonstrate understanding of the philosophical and historical foundations of inquiry, and apply appropriate quantitative, qualitative, and mixed-methods research tools to answer practical educational, programmatic, and other social research questions. They will also: apply appropriate program evaluation tools to conduct formative and summative evaluations of existing and prospective educational programs, demonstrate understanding of ethical issues in research and evaluation, and create informative reports of research and evaluation studies tailored appropriately for multiple stakeholders and decision-makers.

The more general outcomes for students and the state and region are a cadre of professionals prepared to conduct program evaluations and research in a variety of education and other human services settings. In addition, some of the graduates will directly or eventually enter doctoral programs in disciplines related to educational psychology, program evaluation, and research.

The students in the area of emphasis will be a mix of full-time and part-time students. While most instruction and mentoring will be face-to-face, online instruction and mentoring of students will be arranged as circumstances require and permit. Specialized delivery technologies may well be utilized as needed on an individual student or learning activity basis.

Child Development and Family Studies

The Child Development and Family Studies (CDFS) area of emphasis provides students with opportunities for conducting research and working with families and children in educational, applied, or other clinical settings. The Learning Goals for the CDFS emphasis of the M.A. in Educational Psychology seek to advance students' understanding and critical thinking relative to child/adolescent development and family studies. A further goal of the program is for students to acquire deeper understanding of the scholarly basis of this knowledge through coursework and completion of a research-based thesis. Courses in child development, family studies, parenting strategies, and interpersonal communication skills are supplemented with field experiences in a variety of settings. Individuals studying Child Development and Family Studies may select a professional focus from a wide variety of areas including child care specialist, early childhood teacher, developmental specialist, child life educator, parent educator, extension specialist, and family life specialist.

Relative to employment opportunities, students have obtained positions for which they generally would not have been competitive with the bachelor's degree, unless they had many years of related experience. Upon graduation, graduates have been hired as directors of childcare programs in corporations, hospitals, and the private sector. Still other students have become specialists in parenting and curriculum development for Head Start and similar agencies. Graduates have also obtained employment as parenting and family specialists in community-based family agencies and community health care agencies. Some graduate students have entered the program with teaching certificates and have used their master's degree in CDFS to broaden the scope of their teaching in elementary and secondary education. Graduates of the master's degree in CDFS have also successfully pursued positions as Extension agents through land-grant universities. Salaries for CDFS graduates with master's degrees are highly variable depending on the nature of the position and the location of employment. However, salaries are generally higher than for students with the bachelor's degree.

In addition to educational and applied careers, some students have entered the program with the aim of pursuing doctoral studies. Through rigorous coursework and the requirement to complete a research-based master's thesis, students are prepared to pursue doctoral studies in human development, family studies, sociology, special education, developmental psychology, counseling, and related fields. An emphasis in Human Development and Family Studies (HDFS) is offered in conjunction with the Interdisciplinary PhD in Education through the College of Education and Human Services. Some students complete the MA in Educational Psychology with the CDFS emphasis and then apply for the Interdisciplinary PhD in Education program with the HDFS emphasis.

The student and his/her major professor determine the research topic with input from other committee members. The thesis requires six research credits, an extensive literature review, development of a research design with associated methodological procedures, data collection or use of faculty data sets, in-depth analysis of data, and analytic discussion of the results. Most students conduct quantitative/statistically-based theses. However, qualitative research designs are permitted, with appropriate rigorous application of qualitative research methods in the collection and interpretation of data. The format for a thesis must be written in the style of the Publication Manual of the American Psychological Assn. (6th ed.). Theses at WVU are electronically submitted upon their approval.

Doctoral Program General Description

The Educational Psychology program in the College of Education and Human Services offers opportunities for graduate study and research leading to the Doctor of Education. The Learning Goals for the Ed.D. in Educational Psychology seek to educate and train professionals who will focus on teaching and learning environments as they carry out their missions in instruction, service, and research. The principal goal of the program is the education and training of professionals who will focus on teaching and learning environments as they carry out their missions associated with instruction, service, and research. Professional preparation centers on (a) learning and development; (b) instructional development; and (c) measurement, research, and statistics. Accordingly, students are expected to achieve competencies in these areas.

The student, the student's adviser, and the student's committee jointly plan programs to meet particular career needs. Minor fields of study are also planned for each student as appropriate. In addition to the general requirements of the University and the College of Education and Human Services, there is a core of courses supporting the development of competencies required of all graduate students in the program.

FACULTY

CHAIR & PROFESSOR

- Reagan P. Curtis - Ph.D. (University of California)
  Cognition, Development, Research, Program Evaluation and Statistics, Educational Psychology (Coordinator); Evaluation and Research (Coordinator)

CDFS GRADUATE PROGRAM COORDINATOR

- Kristin Moilanen (University of Nebraska) - Ph.D.
  Adolescent Development, Self Regulation, Risk Behavior, Family Relationships

PROFESSORS

- Carol Markstrom (Utah State University) - Ph.D.
  Adolescent Development, Identity and Ethnic Identity Formation, American Indian Adolescents, Involvement in Adult-sponsored Activities
- Barbara Warash (West Virginia University) - Ed.D.
  Early Childhood Education, Reggio Emilia

ASSOCIATE PROFESSOR

- Amy Root (University Maryland, College Park) - Ph.D.
  Parenting and the Development of Emotional Competence, Individual Differences, Development of Shy/Wary Behavior

ASSISTANT PROFESSORS

- Paul R. Hernandez - Ph.D (University of Connecticut)
  Measurement, Statistics, Research Methods, Program Evaluation, Applied Social and Educational Psychology
- Karen Rambo-Hernandez - Ph.D (University of Connecticut)
  Educational Psychology, Multilevel Statistical Modeling, Longitudinal analysis, Assessment of Academic Growth and Diversity in STEM
- Jessica Troilo (University of Missouri) - Ph.D.
  Cultural Conceptions of Fathers, Divorced Fatherhood, the Influence of Social Media on Relationships
- Suzanne Walraff-Hartman (George Mason University) - Ph.D.
  Three to Five-Year Child Development and Learning, Childcare Preschool Environmental Factors, At-risk Child Populations

TEACHING ASSISTANT PROFESSOR

- Patricia Haught - Ed.D. (West Virginia University)
  Cognitive Development, Learning Strategies
- Nancy Taylor (West Virginia University) - Ph.D.
  Parenting Education, Conflict and Crisis Management, Family Therapeutic Interventions

PROFESSOR EMERITUS

- Daniel E. Hursh - Ph.D (University of Kansas)
- Anne H. Nardi - Ph.D (West Virginia University)
- Richard T. Walls - Ph.D (Pennsylvania State University)

ASSOCIATE PROFESSOR EMERITUS

- Floyd L. Stead - Ed.D
  (West Virginia Unversity)

CLINICAL INSTRUCTOR

- Nancy Wolfe-Dilgard (West Virginia University) - M.A.

Communication in Families, Adolescent Drug and Alcohol, Gambling and Families; Parenting Infants, Toddlers, and Adolescents

EARLY CHILDHOOD TEACHERS

- Keri Law (West Virginia University) - M.A.
  Early Childhood Education, Early Childhood Teacher
- Melissa Workman (West Virginia University) - M.S., M.A.
  Early Childhood Education, Early Childhood Teacher/Associate Director of the WVU Nursery School

MA Admission Requirements

GENERAL EDUCATIONAL PSYCHOLOGY AREA OF EMPHASIS

All applicants must submit the following:

- an undergraduate degree from an accredited institution
- online WVU graduate application plus official transcripts of undergraduate and prior graduate work completed
- a 500-word written goal statement explaining how the applicant's goals and objectives may be accomplished if admitted to the program
- a personal vita (resume)
- three letters of recommendation
- official scores for either the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT) Total GRE scores of 302 (on the verbal and quantitative combined) or MAT score of 418-423
- TOEFUL scores (for an international student from a country in which English is not the native language) of at least 79 and a combined total score of at least 214
- An undergraduate GPA of 3.0 or greater
- A graduate GPA of 3.25 or greater

PROGRAM EVALUATION AND RESEARCH AREA OF EMPHASIS

All Program Evaluation and Research faculty members review every graduate application to the program and jointly determine whether a student will be admitted as a regular graduate student or not be accepted into the program. A majority must indicate acceptance and one faculty member must be willing to serve as the major adviser. Final approval for admission rests with the Program Evaluation and Research Area of Emphasis Coordinator. Application materials include the following (with guidelines for minimum levels):

- WVU Online Application
- Undergraduate transcript GPA of 2.75.
- GRE (306) or MAT (405) and TOEFL (79 for students whose primary language is not English)
- Personal statement of interest
- Three letters of recommendation
- Vita (Resume)

CHILD DEVELOPMENT AND FAMILY STUDIES AREA OF EMPHASIS

Ideally, prospective students should have completed an undergraduate curriculum in an area of specialization related to CDFS, such as psychology, sociology, education, or social work. A student whose undergraduate degree is in an unrelated field and/or who lacks preferred foundation courses for graduate studies in CDFS will likely be required to take supplemental undergraduate courses if accepted into the program.

All CDFS faculty members review every graduate application and jointly determine whether a student will be admitted as a regular graduate student or not admitted into the program. One faculty member must be able to serve as the major adviser to the student. Final approval for admission rests with the CDFS Area of Emphasis Coordinator. Application materials include the following:

- Completed application
- Undergraduate transcript
- GRE Scores (while a cut-off has not been established, GRE is examined vis-à-vis undergraduate transcript)
- Personal statement of interest
- Three letters of recommendation
- Resume or curriculum vita

Doctoral Admission Requirements

All applicants must have an undergraduate degree from an accredited institution. Each applicant is required to submit the online WVU graduate application plus official transcripts of undergraduate and prior graduate work completed, a 500-word written goal statement, a personal vita (resume), and three letters of recommendation. All applicants must submit official scores for either the Graduate Record Examination (GRE) or the Miller

Analogies Test (MAT). All faculty members affiliated with the program evaluate the credentials submitted for all completed applications. A majority must indicate acceptance and one faculty member must be willing to serve as the student's adviser. Final approval for admission rests with the Educational Psychology Doctoral Program Coordinator. The following criteria are used as guidelines to evaluate application credentials:

- Total GRE scores of 320 (on the verbal and quantitative combined) or MAT score of 412 (for an international student from a country in which English is not the native language a TOEFL score of at least 79 and a combined total score of at least 234 on the GRE verbal and the TOEFL scores);
- An undergraduate GPA of 3.0 or greater;
- Graduate GPA of 3.25 or greater for graduate work completed (if applicable);
- The extent to which the applicant's goals and objectives may be accomplished if admitted to the program; and
- Favorable recommendations and appropriate background experiences.

APPLICATION INFORMATION

Applicants who are interested in being considered for admission to the MA or EdD graduate programs in Educational Psychology should indicate that interest on standard online application forms provided by the West Virginia University Office of Admissions and Records. In addition to the completed online application form, the following items should be sent to the appropriate Area of Emphasis Coordinator for MA applicants or the EdD Program Coordinator c/o The Department of Learning Sciences and Human Development, West Virginia University, PO Box 6122, Morgantown, West Virginia 26506-6122 before the admission process can be initiated:

1. A completed WVU online graduate application
2. The applicant's undergraduate and graduate (if any) transcript(s)
3. An official copy of the results of either the Graduate Record Examination or the Miller Analogies Test and the TOEFL for non native English speakers
4. Three (3) letters of recommendation
5. A personal vita (resume)
6. A written statement of approximately 500 words, indicating the applicant's goals relative to receiving a graduate degree in Educational Psychology.

Master of Arts

MAJOR REQUIREMENTS

EDP 612	Introduction to Research	3
EDP 613	Statistical Methods 1	3
Thesis		
Area of Emphasis		24-27
Total Hours		**30-33**

Educational Psychology Area of Emphasis

Major Requirements

EDP 600	Educational Psychology	3
EDP 611	Measurement/Evaluation in Educational Psychology	3
EDP 698	Thesis or Dissertation	3-6
Additional Courses/ Electives		12-15
Total Hours		30-33

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EDP 600	3	EDP 611	3	EDP 640	3
EDP 612	3	EDP 613	3	Elective	3
Elective	3	Elective	3		
	9		**9**		**6**

Second Year

Fall	Hours
EDP 698	3-6

Elective	3
	6-9

Total credit hours: 30-33

Evaluation and Research Area of Emphasis

Major Requirements

EDP 611	Measurement/Evaluation in Educational Psychology	3
EDP 612	Introduction to Research	3
EDP 613	Statistical Methods 1	3
EDP 617	Program Evaluation	3
EDP 618	Mixing Research Methodologies	3
EDP 685	Practicum	3
EDP 698	Thesis or Dissertation	3
SCFD 615	Qualitative Research Methods	3
SCFD 781	Nature of Inquiry 1	1
SCFD 782	Nature of Inquiry 2	1
SCFD 783	Nature of Inquiry 3	1
Electives		3
EDP 600	Educational Psychology	
EDP 614	Statistical Methods 2	
EDP 616	Non-parametric Statistics	
EDP 640	Instructional Design	
EDP 685	Practicum	
EDP 711	Multivariate Methods 1	
Total Hours		**30**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EDP 612	3	EDP 611	3	EDP 618	3
EDP 613	3	EDP 617	3	EDP 685	3
SCFD 615	3	EDP 685	3		
SCFD 781	1	SCFD 782	1		
	10		**10**		**6**

Second Year

Fall	Hours
EDP 698	3
SCFD 783	1
	4

Total credit hours: 30

Child Development and Family Studies Area of Emphasis

CDFS 698	Thesis or Dissertation	6
Content Component:		
CDFS 640	Survey of Family Studies	3
CDFS 645	Socio-Emotional Development of Children	3
CDFS 647	Comparative Study of Family	3
CDFS 648	Theories of Child and Adolescent Development	3
CDFS 649	Socialization Processes	3
Electives		6
Total Hours		**27**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
EDP 612	3	EDP 613	3
CDFS 640	3	CDFS 649	3
CDFS 648	3	Elective	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
CDFS 647	3	CDFS 645	3
CDFS 698	3	CDFS 698	3
Elective	3		
	9		**6**

Total credit hours: 33

Doctor of Education

A program of study consists of a minimum of seventy-two hours of graduate credit beyond a bachelor's degree or forty-two hours beyond a master's degree (not including dissertation credits). In addition, successful completion of the competency requirements in the areas of (a) learning and development, (b) instruction, and (c) research are mandatory before a student submits a dissertation prospectus and is admitted as a doctoral candidate.

If a student enters the program with a master's degree, a maximum of thirty hours (of the seventy-two) of relevant course credit from the student's master's degree program may be included in the doctoral program of studies.

Major Requirements

A student must have an average grade of B for all courses in the program and make satisfactory progress toward the completion of the program competencies to remain in good standing.		
Select one of the following course groups:		9
EDP 612 & EDP 613 & EDP 614	Introduction to Research and Statistical Methods 1 and Statistical Methods 2	
or		
SCFD 715	Advanced Qualitative Research	
SCFD 615	Qualitative Research Methods	
Advanced reseach methods course (chosen by student in consultation with the advisor and doctoral committee)		
EDP 794C	Seminar	3
EDP 710	Seminar	3
EDP 740	Principles of Instruction	3
Select two of the following courses:		6
EDP 700	Psychological Foundations of Learning	
EDP 701	Memory	
EDP 702	Human Development and Behavior	
EDP 703	The Adult Learner	
Minor		18
Total Hours		**42**

DOCTORAL COMMITTEE

Each student's doctoral committee shall be composed of a minimum of five members, the majority of whom are regular graduate faculty members. At least two members of the committee (including the permanent advisor), but no more than three must be members of the Educational Psychology Faculty. At least one member of the doctoral committee must be from the student's minor area of study. No more than one person may be a non-member of the Graduate Faculty of WVU. One member of the committee, who has professional relevance to the program of study, must be from outside the program area. The Doctoral Program Coordinator, the Chair of the Department, and the Dean of the College must approve the composition of the doctoral committee.

The duties of the doctoral committee are to: (1) discuss and review the program of study, (2) monitor progress in the program of study, (3) review changes to the approved program of study, (4) evaluate the competency products, (5) approve the dissertation prospectus and admit the student to candidacy, and (6) supervise and approve the dissertation.

The student with the approval of the student's permanent advisor may initiate changes in committee membership. Such a change must be agreed to by the member being replaced (if still available to serve), the student, the major advisor, the new committee member, and the Dean. After approval of any committee membership change, a record of the new committee composition shall be filed in the CEHS Office of Student Advising and Records and in the Educational Psychology Program student file.

COMPETENCY REQUIREMENTS

As an integral part of the Doctoral Program in Educational Psychology, students are required to demonstrate mastery of competencies by producing written products that require them to make use of the work in their formal program of study. The student's committee in collaboration will describe the specific nature of how these competencies will be demonstrated with the student. The competencies are met through satisfactory completion of projects, activities, and/or other experiences.

Competency outcomes will be assessed through three competency products developed by students in the program. These products are in the areas of (a) learning and development, (b) instruction, and (c) research. These products will be developed and assessed according to specifications created by a subcommittee organized by the student's adviser. The student and his/her adviser will select two members for each subcommittee from the members of the student's doctoral committee. The third member of each subcommittee will be appointed by the full doctoral committee (in consultation with the student and his/her adviser) and must have expertise in the area being assessed. Recommendations for the third member from the student and his/her adviser are welcomed.

ADMISSION TO CANDIDACY

Admission to candidacy for the doctoral degree shall be granted only to persons holding a master's degree. Students may enter the doctoral program without a master's degree but must earn a master's degree within the program before advancing to candidacy for the doctoral program. This master's program shall require a thesis.

Admission to candidacy occurs after:

1. Successfully completing an acceptable Master's Degree.
2. Filing an approved program of study.
3. Successfully completing competency requirements for the Major (in the areas of Learning and Development, Instruction, and Research) and the requirements for the Minor.
4. Satisfactory completion of College requirements (i.e., a student is officially admitted to candidacy for the Ed.D. after obtaining unanimous approval of the written dissertation prospectus from the doctoral committee).
5. A signed copy of the approved prospectus and the form for "Admission to Candidacy for Ed.D." is filed in the CEHS Office of Student Advising and Records. (This constitutes a contract for the dissertation research that the student may begin to conduct.)

DISSERTATION

Students are to meet the competency requirements before submitting a dissertation prospectus to the doctoral committee. The prospectus must be prepared, in consultation with the doctoral committee chairperson, on a topic in the major field, showing a potential for contribution to existing knowledge. Once the doctoral committee chairperson approves the prospectus, the student will schedule a meeting of the full doctoral committee to have the prospectus examined. The committee may accept, reject, or require modification of the prospectus. Each committee member will sign an approved prospectus, including all modifications specified by the committee. The approved prospectus will be filed in the Office of Student Advising and Records and in the Educational Psychology Program student file.

A final oral defense of the completed dissertation shall be held. All doctoral committee members (or approved substitutes) shall be present for the dissertation defense. A committee member other than the student's advisor may serve as dissertation chairperson if the person is a regular member of the graduate faculty and if the student and all members concur in writing. Meetings of the doctoral committee are open to the public, except when in executive session.

Instructional Design and Technology

Degrees Offered

- Master of Arts in Instructional Design and Technology (IDT)
- Doctor of Education in Instructional Design and Technology (IDT)

The online Master of Arts in Instructional Design and Technology Program is designed for the individual who wants to apply cutting edge instructional technologies and design strategies in business, education, and other educational settings. The Learning Goals for the program are to advance

knowledge and critical thinking relative to instructional design and instructional technologies.Features of the program include courses in educational psychology, instructional design and technology, and program evaluation.

The Instructional Design and Technology Ed.D. Program is designed to allow a graduate to immediately apply knowledge and skills to pragmatic needs in any educational setting, particularly for those interested in teaching and conducting research in a university environment. The Learning Goals for the program are to enhance knowledge and skill-building that are designed into the courses and address three areas of competency, including interconnectivity, instructional design, and software-multimedia design. Students are encouraged to address research toward the pragmatic needs of students, programs, and institutions.

Students are encouraged to identify topics of interest and to develop an appropriate topic for inquiry as one takes courses. Research in instructional technology is addressed throughout the courses and supplements the college research core requirements. The program features seminar courses that provide opportunities to conduct research and develop instructional interventions, including technological integration of tools.Teaching opportunities may be found working with faculty members, the college's TLTC, and internships in corporate settings in the Morgantown/Fairmont area.

FACULTY
DOCTORAL COORDINATOR

- Terence C. Ahern - Ph.D (Pennsylvannia State University)
  Associate Professor, Instructional Systems Design, Social Media Design, Game Development, Information Technologies, Instructional Design, Network Architecture

MASTER'S COORDINATOR

- Ugur Kale - Ph.D. (Indiana University Bloomington)
  Associate Professor, Instructional Technologies, Instructional Design, Professional Development, Online Communication, Teacher Education, Content Analysis, Social Network Analysis

PROFESSOR

- R. Neal Shambaugh - Ph.D. (Virginia Polytechnic Institute and State University)
  Professor, Instructional Design, Instructional Technology Integration, Cognition, Visual Literacy

PROFESSORS EMERITI

- Paul W. DeVore
- David L. McCrory - Ph.D. (Case Western Reserve University)
- Edward C. Pytlik - Ph.D. (Iowa State University)

Admissions Requirements - Master's

- Cover letter describing past work experience and goals for graduate study
- Transcript(s) of completed undergraduate program
- Resume or Vitae
- Scores from Graduate Record Examination (GRE, 5 years or newer) OR a written narrative describing two years of professional work experience (Attach the latter to cover letter)
- Three letters of reference commenting on professional background and plans for graduate study
- International students: submit scores from either TOEFL or IELTS

Admissions Requirements - Doctorate- Ed.D

- GRE 302 minimum; or MAT 418 minimum (or a score of 60 on the older version)
- GRE or MAT scores must be no older than five years old
- TOEFL: 79 minimum (additional requirement for international students)
- Master's degree
- Letter of application explaining purpose, motivation, and research interests for an IDT Ed.D. degree
- Three letters of references
- Scholarly writing sample
- Vita

Master of Arts
MAJOR REQUIREMENTS

EDP 600	Educational Psychology	3

EDP 612	Introduction to Research	3
EDP 617	Program Evaluation	3
EDP 640	Instructional Design	3
IDT 600	Instructional Design and Technology Theories and Models	3
IDT 610	Distance Education	3
Competency Courses		18
IDT 620	Social Network Media	
IDT 630	Instructional Delivery System	
IDT 640	Visual Literacy	
IDT 650	Multimedia Learning	
IDT 660	Instructional Design and Technology Authoring Systems	
IDT 670	Digital Tools and Web	
IDT 693	Special Topics	
IDT 720	Instructional Systems Design	
IDT 735	Technology Integration	
IDT 740	Design Studio	
IDT 750	Prototype Studio	
Total Hours		**36**

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
IDT 610	3	IDT 600	3	EDP 600	3
IDT 640	3	IDT 630	3	EDP 612	3
		IDT 720	3		
	6		**9**		**6**

Second Year

Fall	Hours	Spring	Hours
IDT 620	3	EDP 617	3
IDT 740	3	IDT 660	3
		IDT 735	3
	6		**9**

Total credit hours: 36

- A portfolio stores major work products from courses.
- IDT 693 courses may be substituted with advisor approval.

Doctor of Education
MAJOR REQUIREMENTS

Common Core (12 hr)

EDP 700	Psychological Foundations of Learning	3
EDP 740	Principles of Instruction	3
IDT 799	Graduate Colloquium	6
College Research Core (15 hr)		
EDP 612	Introduction to Research	3
EDP 613	Statistical Methods 1	3
EDP 614	Statistical Methods 2	3
SCFD 615	Qualitative Research Methods	3
Research Elective		3
Competency Areas (27 hr)		
Interconnectivity		
IDT 620	Social Network Media	3

IDT 630	Instructional Delivery System	3
IDT 715	School Networks	3
Instructional Design		
EDP 640	Instructional Design	3
IDT 720	Instructional Systems Design	3
IDT 740	Design Studio	3
Software and Multimedia		
IDT 640	Visual Literacy	3
IDT 660	Instructional Design and Technology Authoring Systems	3
IDT 750	Prototype Studio	3
Specialization Electives (18 hr)		18
Other IDT courses		
Courses from Master's program		
Courses from other programs		
Total Hours		**72**

Benjamin M. Statler College of Engineering and Mineral Resources

Contact Information

Website: http://www.statler.wvu.edu
E-mail: statler-info@mail.wvu.edu
Phone: (304) 293-0395

Degrees Offered

- Masters of Science, Aerospace Engineering (M.S.A.E.)
- Masters of Science, Chemical Engineering (M.S.Ch.E.)
- Masters of Science, Civil Engineering (M.S.C.E.)
- Masters of Science, Computer Science (M.S.C.S.)
- Masters of Science, Electrical Engineering (M.S.E.E.)
- Masters of Science, Energy Systems Engineering (M.S.E.S.E.)
- Masters of Science, Engineering (M.S.E.)
- Masters of Science, Industrial Engineering (M.S.I.E.)
- Masters of Science, Industrial Hygiene (M.S.)
- Masters of Science, Material Science and Engineering (M.S.M.S.E)
- Masters of Science, Mechanical Engineering (M.S.M.E.)
- Masters of Science, Mining Engineering (M.S.Min.E.)
- Masters of Science, Petroleum and Natural Gas Engineering (M.S.P.N.G.E.)
- Masters of Science, Safety Management (M.S.)
- Masters of Science, Software Engineering (M.S.S.E)
- Doctor of Philosophy, Aerospace Engineering (Ph.D.)
- Doctor of Philosophy, Chemical Engineering (Ph.D.)
- Doctor of Philosophy, Civil Engineering (Ph.D.)
- Doctor of Philosophy, Computer Science (Ph.D.)
- Doctor of Philosophy, Computer Engineering (Ph.D.)
- Doctor of Philosophy, Electrical Engineering (Ph.D.)
- Doctor of Philosophy, Industrial Engineering (Ph.D.)
- Doctor of Philosophy, Mechanical Engineering (Ph.D.)
- Doctor of Philosophy, Mining Engineering (Ph.D.)
- Doctor of Philosophy, Occupational Safety and Health (Ph.D.)
- Doctor of Philosophy, Petroleum and Natural Gas Engineering (Ph.D.)

Degree Programs

The Benjamin M. Statler College of Engineering and Mineral Resources graduate programs are administered through the Departments of Chemical Engineering, Civil and Environmental Engineering, the Lane Department of Computer Science and Electrical Engineering, Industrial and Management Systems Engineering, Mechanical and Aerospace Engineering, Mining Engineering, and Petroleum and Natural Gas Engineering. The M.S. degree in Energy Systems Engineering, the M.S. in Engineering and the M.S. in Material Science and Engineering are degrees administered by the Statler College and available to students from of its academic units participating in those degree programs. Statler College facilities are primarily housed on the Evansdale campus in the Engineering Sciences Building, the Mineral Resources Building , and the Engineering Research Building and the Advanced Engineering Research Building. These buildings house state-of-the-art research facilities, well-equipped teaching laboratories, computer classrooms, and offices for the faculty and administration of the graduate programs.

The Ph.D. program prepares graduates for leadership in industrial, government, or academic fields. The college offers a doctor of philosophy with areas of specialization in aerospace, chemical, civil, computer, electrical, industrial, mechanical, mining, and petroleum and natural gas engineering, in computer science, in material science and engineering, and in occupational safety and health.

Designated master's degree programs in engineering are offered in aerospace, chemical, civil, electrical, industrial, mechanical, mining, petroleum and natural gas, and software engineering, in computer Science, in energy systems engineering, and in material science and engineering. The college offers two accredited masters of Science degrees in industrial hygiene and in safety management. These programs are accredited by the Applied

Science Accreditation Commission of ABET. A master's of Science in engineering (M.S.E.) degree is offered to qualified students as determined at the departmental level.

Currently, the college offers graduate certificate programs in computer forensics, information assurance and biometrics, interactive technologies and serious gaming, and software engineering. For specific information about a program, students should review research and graduate studies information on the college website.

ADMINISTRATION

DEAN
- Eugene V. Cilento - Ph.D. (University of Cincinnati)
  Glen H. Hiner Dean

ASSOCIATE DEAN FOR ACADEMIC AFFAIRS
- Warren R. Myers - Ph.D. (West Virginia University)

ASSOCIATE DEAN FOR ADMINISTRATION
- Royce J. Watts - M.S. (West Virginia University)

ASSOCIATE DEAN FOR RESEARCH
- Pradeep P. Fulay - Ph.D. (University of Arizona)

ASSISTANT DEAN FOR FRESHMAN EXPERIENCE
- Robin A. Hensel - Ed.D. (West Virginia University)

Degree Designation Learning Goals

MASTER OF SCIENCE (MS)

Industrial Hygiene

The M.S. in Industrial Hygiene is accredited by the Applied Science Accreditation Commission of ABET. Upon graduation, with a Masters of Science degree in Industrial Hygiene, students will have:

- Ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice such as:
    - Principles and methods of industrial hygiene
    - Principles and methods of ergonomics
    - Principles and methods of safety
    - Principles of environmental sciences (environmental elective)
    - Principles of epidemiology and biostatistics
    - Principles and methods of control of physical and chemical hazards
- Ability to apply knowledge of math, science, and industrial hygiene
- Ability to design and conduct experiments, analyze and interpret data, develop implementation strategies, and shape recommendations so that results will be achieved and findings will be communicated effectively
- Ability to work individually, in teams, and/or in multi-disciplinary teams to identify, formulate, and solve problems using industrial hygiene, safety, and ergonomics knowledge, skills, and tools
- Ability to formulate or design a system, process, or program to meet desired needs
- Understanding of professional and ethical responsibility and the broad education and knowledge of contemporary issues necessary to understand the impact of solutions in a global and societal context
- Recognition of the need for and an ability to engage in life-long learning

Safety Management

Graduates of the Safety Management program must be able to meet the following outcomes at the time of their graduation:

- Demonstrate knowledge and skills to build a comprehensive Safety and Health program based on loss control and regulations
- Demonstrate knowledge and skills to use analytical techniques in the Safety and Health function
- Demonstrate knowledge and skills with federal, state, and non-governmental Safety and Health program standards and best practices
- Demonstrate skills in written and oral communications at the level of professionals in safety and health positions
- Demonstrate knowledge and skills in writing and evaluating safety and health research proposals
- Demonstrate knowledge and skills in using management tools to implement and evaluate Safety and Health programs

MASTER OF SCIENCE IN AEROSPACE ENGINEERING (MSAE)

Upon graduation with a Masters of Science degree in Aerospace Engineering, students will have:

- Expert-level understanding of the advanced principles of aerospace engineering, which include aerospace systems design, aircraft or spacecraft dynamics, stability and control, flight mechanics and simulation, advanced materials, vehicle propulsion, aerodynamics, aeroelasticity, and computational mechanics.
- Ability to complete on time specific research tasks
- Strong oral and written communication skills
- Ability to work independently in a collaborative environment
- Understanding for holding the highest standards of ethical and professional responsibility in the practice of their profession to contribute to the well-being of society and to the advancement of the aerospace engineering profession.

MASTER OF SCIENCE IN CHEMICAL ENGINEERING (MSCHE)

Upon graduation, with a Masters of Science degree in Chemical Engineering, students will have:

- Understanding of advanced principles of chemical engineering, which include reaction engineering, transport phenomena, and thermodynamics
- Expert-level understanding of the background and theory/principles of their research topics.
- Ability to plan research projects, to perform the tasks, and to draw conclusions based on sound scientific and engineering principles.
- Ability to write technical articles for publication in refereed journals and to make oral and poster presentations at technical meetings.
- Demonstrated initiative in research planning and management, including safety and environmental issues.
- Been technically prepared for a lifetime of continuing education.
- Understanding of professional and ethical responsibilities.

MASTER OF SCIENCE IN CIVIL ENGINEERING (MSCE)

Upon graduation, with a Masters of Science degree in Civil Engineering, students will have:

- Ability to function on teams involving multiple civil engineering specialties.
- Ability to apply advanced methodologies in their specialty area.
- Ability to effectively communicate technical information.
- Ability to design and conduct experiments, analyze and interpret data, and develop recommendations.
- An understanding of professional and ethical responsibility.
- An ability to understand the impact of engineering solutions in global and societal context.
- Recognition of the need to engage in life-long learning.
- Ability to use contemporary techniques, skills, and tools necessary for engineering practice in education, industry, and/or government.

MASTER OF SCIENCE IN COMPUTER SCIENCE (MSCS)

Upon graduation, with a Masters of Science degree in Computer Science, students will:

- Have obtained knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study
- Achieve a depth of proficiency in a specific field of Computer Science by completing major courses in one of three areas: computer systems, software and knowledge engineering, or the theory of computation.
- Achieve a breadth of understanding of Computer Science by completing minor coursework requirements in other areas, and by participation in graduate seminar requirements.
- Demonstrate professionalism and communication skills through completion of coursework, project, or thesis defense.

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING (MSEE)

Upon graduation, with a Masters of Science degree in Electrical Engineering, students will:

- Have obtained knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study
- Achieve a depth of proficiency in a specific field of electrical engineering by completing major courses in one of four areas: electronics and photononics; systems and signals; computer systems; or software and knowledge engineering.
- Achieve a breadth of understanding of electrical engineering by completing minor coursework requirements in another area, and by participation in graduate seminar requirements.
- Demonstrate professionalism and communication skills through completion of coursework, project or thesis defense.

MASTER OF SCIENCE IN ENERGY SYSTEMS ENGINEERING (MSESE)

Upon graduation, with a Masters of Science degree in Energy Systems Engineering, students will have:

- Understanding of the supply chain for carbon based and "green" energy, for production, conversion or processing, transmission, and point of utilization;
- Advanced training in specialized areas of energy systems engineering;
- Ability to function at the highest levels of expertise in their chosen sub-discipline of energy, and who are well versed in the overall concepts of getting energy to consumers;
- Ability to complete on time specific professional-paper tasks
- Strong oral and written communication skills
- Ability to work independently in a collaborative environment
- Understanding of professional and ethical responsibility
- Ability to understand the impact of engineering solutions in global and societal context
- Recognition of the need to engage in life-long learning

MASTER OF SCIENCE IN ENGINEERING (MSE)

Upon graduation, with a Masters of Science degree in Engineering, students will have:

- An expert level understanding of the advanced principles of their engineering specialty
- Ability to apply advanced methodologies in their specialty area
- Ability to design and conduct original experiments, analyze and interpret data, and develop recommendations with a high degree of independence
- Advanced ability to use contemporary techniques, skills, and tools necessary for engineering practice in education, industry, and/or government
- Ability to effectively communicate technical information in the form of a thesis, scientific publication or presentation
- Understanding of professional and ethical responsibility
- Ability to understand the impact of engineering solutions in global and societal context
- Recognition of the need to engage in life-long learning
- Foundational preparation to pursue doctoral studies

MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING (MSIE)

Upon graduation, with a Masters of Science degree in Industrial Engineering, students will have:

- Ability to use and master modern and classical industrial engineering methodologies in their area of concentration
- Ability to apply knowledge of math, science, and engineering
- Ability to do research, and to design and conduct experiments, analyze and interpret data, develop implementation strategies, and shape recommendations so that results will be achieved and findings will be communicated effectively
- Ability to work individually, on teams, and/or on multi-disciplinary teams to identify, formulate, and solve problems using industrial engineering knowledge, skills, and tools
- Ability to design and implement or improve integrated systems that include people, materials, information, equipment, and energy using appropriate analytical, computational, and experimental practices
- Understanding of professional and ethical responsibility and the broad education and knowledge of contemporary issues necessary to understand the impact of solutions in a global and societal context
- Recognition of the need for and an ability to engage in life-long learning
- Professional characteristics expected of a successful industrial engineer

MASTER OF SCIENCE IN MATERIAL SCIENCE AND ENGINEERING (MSMSE)

Upon graduation, with a Masters of Science degree in Material Science and Engineering, students will have:

- An expert level understanding of the advanced principles of their engineering specialty
- Ability to apply advanced methodologies in their specialty area
- Ability to design and conduct original experiments, analyze and interpret data, and develop recommendations with a high degree of independence
- Advanced ability to use contemporary techniques, skills, and tools necessary for engineering practice in education, industry, and/or government
- Ability to effectively communicate technical information in the form of a thesis, scientific publication or presentation
- Understanding of professional and ethical responsibility
- Ability to understand the impact of engineering solutions in global and societal context
- Recognition of the need to engage in life-long learning

- Foundational preparation to pursue doctoral studies

MASTER OF SCIENCE IN MECHANICAL ENGINEERING (MSME)

Upon graduation, with a Masters of Science degree in Mechanical Engineering, students will have:

- Expert-level understanding of the advanced principles of mechanical engineering, which include mechanical systems design, system dynamics, solid mechanics, energy systems, engineering materials, automatic controls, mechatronics, and computational mechanics
- Ability to complete on time specific research tasks
- Strong oral and written communication skills
- Ability to work independently in a collaborative environment
- Understanding for holding the highest standards of ethical and professional responsibility in the practice of their profession to contribute to the well-being of society and to the advancement of the aerospace engineering profession.

MASTER OF SCIENCE IN MINING ENGINEERING (MSMINE)

Upon graduation, with a Masters of Science degree in Mining Engineering, students will have:

- Ability to investigate and develop solutions to advanced mining engineering problems
- Advanced technical knowledge and research experience needed to address the most challenging contemporary issues within a specialized area of study

MASTER OF SCIENCE IN PETROLEUM AND NATURAL GAS ENGINEERING (MSPNGE)

Upon graduation, with a Masters of Science degree in Petroleum and Natural Gas Engineering, students will have:

- Advanced technical knowledge and engineering skills needed by the oil and gas industry in the state, the nation, and the world
- In-depth knowledge of petroleum and natural gas engineering principles and applications to function effectively in their profession or continue their education
- Ability to perform independent research to solve engineering and scientific problems encountered in their profession
- In-depth petroleum and natural gas scientific and engineering knowledge to provide high quality education in petroleum and natural gas engineering

MASTER OF SCIENCE IN SOFTWARE ENGINEERING (MSSE)

Upon graduation, with a Masters of Science degree in Software Engineering, students will have:

- Knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, or governmental service
- Achieved proficiency in the area of Software Project Management.
- Achieved proficiency in Software Analysis and Design.
- Understanding of the process of software Validation and Verification.
- Understanding of the process of Software Evolution.
- Achieved proficiency in Object-Oriented Design of software.

DOCTOR OF PHILOSOPHY (PHD)

Upon graduation with a Ph.D. degree from the Statler College of Engineering and Mineral Resources students will have:

- Ability to initiate research ideas in order to solve specific problems and to write research proposals on these ideas
- Have an expert-level understanding of the advanced principles of their fields of study
- Furthered a novel research idea which has contributed to the state of the art in their specific areas of expertise
- Ability to plan original research projects, to perform laboratory or field based experimental tasks, generate data from those tasks, and draw conclusions based on sound scientific and engineering principles
- Ability to develop innovative research in order to advance the frontiers of knowledge and secure sponsored research
- Ability to write technical articles for dissemination through peer-reviewed, refereed journals or other venues
- Ability to make oral and poster presentations at technical meetings
- Understanding of professional and ethical responsibilities in the practice of their profession to contribute to the well-being of society and to the advancement of their profession
- Demonstrated initiative in research planning and management, including safety and environmental issues
- Technical preparation for and an awareness of the need for life-long learning and continuing education

A student desiring to take courses for graduate credit in the college must comply with the appropriate university regulations for graduate study. To become enrolled in a Statler College graduate program, a student must apply for admission through the Office of Admissions to the department housing

the student's choice of major. Acceptance will depend upon review of the student's academic background and available facilities in the major program's department.

An applicant with a baccalaureate degree, or its equivalent, from a program accredited by the ABET, Computer Science Accreditation Board (CSAB), or an internationally recognized program in engineering or computer Science will be admitted on the same basis as engineering or computer Science graduates of WVU. Lacking these qualifications, an applicant must first fulfill any special requirements of the department in which the student is seeking an advanced degree.

Masters Program

There are three types of degrees granted within the Statler College of Engineering and Mineral Resources:

- M.S. in an engineering discipline (e.g. M.S.I.E., M.S.E.E., etc.)
- M.S. in engineering (e.g. M.S.E)
- M.S. in an applied science area (i.e., M.S. I.H., M.S.S.M., M.S.S.E., M.S.C.S.)

The M.S. degree in an engineering discipline requires an undergraduate degree in the same discipline. The master's in engineering degree is intended for students who want an engineering master's degree but do not have an undergraduate degree in the same field or a closely-allied field. The applied science programs are intended for students wishing to obtain a master's in these non-engineering disciplines.

The two types of engineering degrees both require a calculus-based undergraduate education in an accredited program or an internationally recognized program; the applied science areas do not. Note: The admissions requirements are set by the individual department and program areas.

Students wishing to pursue a master's of science degree that do not hold a correspondingly named bachelor's degree may be admitted into either a discipline-designated program (including the M.S. degrees in computer science, industrial hygiene, safety management, and software engineering) or the undesignated Master of Science in Engineering Degree Program, depending on their credentials. For engineering degree programs, such students will normally be required to obtain a baccalaureate level of proficiency in subjects directly related to their area of graduate study by taking undergraduate prerequisite courses, either prior to starting or as an integral part of their M.S. degree program. The degree designation and additional course requirements will be determined by the department admitting the student.

ENTRANCE AND CLASSIFICATION

Students admitted to the master's degree program will be classified in one of three categories:

1. Regular – To be admitted as a *regular* graduate student, an applicant must have a grade point average (GPA) of 3.0 or better (out of a possible 4.0) in all previous college work and must meet all other requirements set by the department.

2. Provisional – An applicant not qualifying for the regular graduate student admission status, either due to insufficient GPA, incomplete credentials, or inadequate academic background, may be admitted as a *provisional* student. Any applicant with a GPA below 2.75 in any of his previous college work cannot be admitted without approval from the dean or designate. Requirements for attaining regular student status must be determined by the regularly constituted Admissions Committee and stated in a letter or form sent to the student by the department or program area prior to registration for coursework. The letter or form should include the following:< >Reason not qualified for regular admission (e.g., deficient prerequisites, GPA, or both)Coursework deficiencies, if any, and courses at WVU to correct the deficiencies (which must be passed with a "C" or better)Notification that the student must attain at least a 3.0 in his or her first nine hours of graduate courseworkNotification that the student cannot graduate until all coursework deficiencies has been remediatedNon-degree – A student who is not deemed qualified for admission to regular or provisional status, or who does not desire to pursue a degree, may be admitted as a *non-degree* student. Each department determines the minimum qualification requirements for admission as non-degree students. Such students are allowed to take graduate courses but are not allowed to pursue a graduate degree. These students may later request a change of status (see Section 3, Classification Change, and Section 12, Status Change).

Doctoral Program

Admission as a graduate student is required of all applicants for admission to a program of study and research leading to the degree of Ph.D. To be eligible for admission into a doctorate program in any engineering field, a candidate is expected to hold or to receive by time of enrollment a B.S. or an M.S. degree in one of the following fields:

- Some discipline of engineering from an institution which has an ABET-accredited program in that discipline or which has an internationally-recognized program in engineering/mineral resources
- Mathematics and physical sciences (as specified by individual programs)

To be eligible for admission into the doctoral program in the field of computer science, a candidate is expected to hold a B.S. or an M.S. degree in one of the following fields:

- Computer science
- Engineering

- Mathematics and physical sciences (as specified by the program)

To be eligible for admission into the doctoral program in the field of occupational safety and health, a candidate is expected to hold a B.S. or an M.S. degree in one of the following fields:

- Industrial hygiene
- Safety
- Engineering
- Mathematics and physical and life sciences (as specified by the program)

Although a bachelor's degree is the minimum requirement, applicants are normally encouraged to hold a master's degree in a relevant discipline. Admission to graduate study does not necessarily assure entrance into the college's doctoral program. For complete details about admission criteria and other governance details of the doctor of philosophy programs please refer to the Guidelines for Doctor of Philosophy Programs which can be found on the college's home page.

ENTRANCE AND CLASSIFICATION

Not all students who meet minimum college and program requirements will necessarily be accepted. Faculty members in a given graduate program have the right to set standards and conditions more restrictive than those set forth in these guidelines and the right to limit enrollment. For example, a program may choose to reject an applicant because his or her goals are not perceived to match the current needs and resources of the program. Similarly, although a student may be admitted solely for the purpose of enrolling in advanced coursework (e.g., non-degree students), program faculty may decline to allow that student to continue towards a doctoral degree even though the student has completed all required coursework successfully.

Students admitted to the Ph.D. program will be classified in one of two categories:

1. Regular - To be admitted as a regular graduate student, an applicant must have an equivalent grade point average (GPA) of 3.0 or better (out of a possible 4.0) in all previous college work, and must meet all other requirements set by the department and program, including minimum GRE scores. Any exceptions to the stated requirements must be approved by the dean.
2. Provisional - An applicant not qualifying for the regular graduate student admission status, either due to insufficient GPA, insufficient GRE scores, incomplete credentials, or inadequate academic background, may be admitted as a provisional student. Any applicant with a GPA below 2.75 in any of his/her previous college work cannot be admitted without a special approval from the dean. Applications will be returned to the program coordinator if the application shows a GPA less than 2.75 unless it is accompanied by a signed approval from the dean. Students are notified of their provisional status by Admissions and Records. The admitting college program is responsible for communicating to the student the requirements they must meet before attaining regular status.

Note: Admission to the graduate program does not confer or guarantee candidacy for the Ph.D., which requires a separate decision.

In this section:

Minimum Course Standards

No credits which are reported with a grade lower than C are acceptable toward an advanced degree. To qualify for an advanced degree, the graduate student must have a grade point average of at least 3.0 based on all courses acceptable for graduate credit for which the student has received a grade from WVU. Graduate students in the college must also comply with the regulations of their major department.

Departments may establish more stringent requirements than those adopted for the college as a whole. These departmental requirements are contained in the individual program sections of the graduate catalog.

Course Load

A full-time graduate student must register for at least nine, but no more than fifteen, credit hours during each regular semester, or at least six, but no more than twelve, credit hours in the summer session. Permission to carry a heavier load must be obtained in writing from the dean.

Masters Programs

PROGRAM OPTIONS

For all master's degree students, an advisory and examining committee (AEC) consisting of at least three faculty members will be appointed. A plan of study must be jointly prepared and approved by the student and all members of the student's AEC, the department chair, and the dean or dean's

designate, either at the end of the second semester of the student's attendance or at the completion of the twelfth course credit hour, whichever is later. The college is authorized to grant master's degrees under each of the following three options:

- Thesis Option – This option requires a minimum of twenty-four credit hours of coursework and at least six credit hours of research leading to the thesis.
- Problem Report Option – This option requires a minimum of thirty credit hours of coursework and at least three credit hours of a research or design project leading to a formal written report.
- Coursework Option – This option requires a minimum of thirty-three credit hours of coursework. There are two ways this option is implemented. First, although rarely permitted, this option is open to students who have practical engineering experience and/or have demonstrated an ability to organize and develop a project and write a technical report. Approval to pursue this option must be obtained from the student's AEC, the graduate program coordinator, and the department chair. Second, a department can choose to offer students within a designated program the coursework-only option. Normally, for each option the coursework required is greater than that required for a student doing a thesis or problem report. In addition, the department must require successful completion of a written or oral comprehensive examination.

ADVISORY AND EXAMINING COMMITTEE

Each department will form an advisory and examining committee (AEC) for each of its master's degree students, consisting of at least three members (with one member clearly designated as chairperson). The chair of the AEC and the majority of its members must be regular members of the graduate faculty and must have a primary faculty appointment in CEMR. The majority of the AEC members must be tenure track CEMR faculty. No more than one person may be a non-member of the graduate faculty,

The committee must be formed by the end of the second semester of attendance by the student or by the completion of the twelfth course credit hour applicable to the master's degree requirements, whichever is later. Otherwise, the student will not be allowed to register for the following semester.

PLAN OF STUDY

A plan of study must be prepared by the student and the AEC chair. This plan must be approved by the student, all members of the AEC, the graduate program coordinator, the department chair, and the dean, before the end of the second semester of the student's attendance or before the completion of the twelfth course credit hour applicable to the master's degree requirements, whichever is later. This plan must also include a preliminary thesis research topic or problem report topic, if applicable.

Any revisions to a plan of study (including any changes to the AEC) will necessitate submission of a revised plan which incorporates all approved signatures. Any changes to the AEC must be signed by the previous and new members of the committee, to the extent that a previous committee member is available on campus. In addition, the removal of any member of the AEC requires submission of a Plan of Study Attachment.

TIME TO COMPLETION

All requirements for the master's degree must be completed within eight years preceding the student's graduation.

APPLICATION FOR TRANSFER OF GRADUATE CREDIT

A student wishing to apply graduate credit earned at another institution to a master's degree at WVU must complete an application for transfer of graduate credit to WVU and have an official transcript submitted to the WVU Office of Admissions from the external institution. A maximum of twelve semester hours from other institutions may be acceptable for credit at WVU in master's degree programs in Statler College. Departmental programs may choose to accept fewer transfer credit hours with the restriction that only courses with grades of A or B may be considered for transfer.

Doctoral Programs

ADVISORY AND EXAMINING COMMITTEE

Each department will form an advisory and examining committee (AEC) for each of its doctoral-level students, consisting of a minimum of five members. The dean and the department chair each have the right to appoint one member to this committee. At least one of the members of the committee must be from outside the department. The majority of the members of the AEC must be regular members of the graduate faculty. No more than one person may be a non-member of the graduate faculty. The committee must be formed by the end of the third semester of attendance by the student or by the completion of the twelfth course credit hour applicable to the doctoral degree requirements, whichever is later. Otherwise, the student may be refused permission to register for the following semester.

The chair of the AEC should be selected by the student in consultation with the graduate program coordinator or the chair of the department. Normally, the AEC chair should be a member of the degree-granting program. The chair must be a regular member of the college graduate faculty. Non-tenure track faculty may serve as chair if they are a regular member of the graduate faculty. Members should be selected by the student in consultation with the chair of the committee. The chair and all members should be selected based on their perceived ability to contribute to the progress and evaluation of the student's research and their ability to work cooperatively with other members and the student. The members of the AEC must be listed on the plan of study, which must be signed by the graduate coordinator, chair of the department, and the dean to gain approval.

PROGRAM REQUIREMENTS

RESIDENCY

Full-time attendance on campus is required for two consecutive semesters consisting of a minimum of nine credit hours each. A full summer, consisting of registration in both sessions and completion of a minimum of nine credit hours over both sessions, is considered equivalent to one semester of residence. However, an alternative plan by which the student can get an equivalent education experience may be followed if approved in the plan of study.

COURSE REQUIREMENTS

Specific course requirements are determined by the student's advisory and examining committee. However, a minimum of eighteen semester hours of coursework at WVU is required at the 500 and higher-levels with an average of 3.0 or better.

REQUIREMENTS FOR CANDIDACY

Programs that admit students with only a B.S. degree are encouraged to require such students to demonstrate the competencies expected of a master's graduate, in addition to the competencies required by the doctoral program before achieving candidacy.

Each department will specify in writing its own requirements and standards for a student to be admitted to candidacy. At a minimum, these requirements will include one written examination, completion of all course requirements, and an oral defense of a written research proposal. The successful outcome of this exam will demonstrate the student has the following:

- A grasp of the important phases and problems of the field of study and an appreciation of their relation to other fields of human knowledge and accomplishments
- The ability to employ the instruments of research developed in the student's area of interest

The AEC may approve the research proposal conditioned upon stipulated changes to the proposal. In such cases, the chair of the AEC should ensure that the required changes to the proposal are made by the student before signing the Approval of Candidacy. The chair of the AEC must provide a copy of the revised research proposal to all members of the AEC before signing his or her approval.

At the completion of the candidacy requirements, the results must be reported to the dean by the student's AEC. For a positive recommendation for admission to candidacy, no more than one negative vote may be cast. A minimum of one opportunity for reexamination must be available for each student. Students who fail to receive a positive recommendation for admission to candidacy are terminated at the end of that semester and may not reenter the program.

RESEARCH REQUIREMENTS

The faculty of the college believe that the experience gained in performing and reporting a research endeavor should be over a prolonged period. Therefore, the Ph.D. in engineering and the Ph.D. in occupational safety and health degrees require a minimum of twenty-four credit hours of research at the Ph.D. level leading to a dissertation, while the Ph.D. in computer science requires eighteen research hours.

CREDIT REQUIREMENTS

The degree of doctor of philosophy is not awarded solely on the basis of the accumulation of course credits and completion of a definite residence requirement. The amount and nature of the coursework undertaken by a doctoral student will be established for each individual student with the objective of ensuring a reasonable and coherent progression of academic development beyond the baccalaureate and/or master's degree.

APPLICATION FOR TRANSFER OF GRADUATE CREDIT

A student wishing to apply credit earned at another institution to a doctoral degree program at WVU must submit an application for transfer of graduate credit to WVU and have an official transcript from the institution forwarded to the WVU Office of Admissions. The approval of transfer credit is at the discretion of the student's AEC with the restriction that only courses with grades of A or B may be considered for transfer.

Curriculum in Master of Science in Engineering

The following programs participate in the Master of Science in Engineering Program:

- Chemical Engineering
- Civil Engineering
- Computer Science
- Electrical Engineering
- Industrial Engineering

A candidate for the M.S. degree in engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the specific department in which the student's concentration is in.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]	
A minimum of 60% of courses must be from 500 level or above	
Select from the following based on degree path:	24
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799	
Complete 1 of the following options:	6-9
Thesis Option - 6 hours	
Research - any 697 (6 hours)	
Written Research Proposal	
Thesis	
Final Oral or Written Examination	
Problem Report Option - 9 hours	
Complete 6 additional hours of coursework	
Research - any 697 (3 hours)	
Written Research Proposal	
Formal written report or professional report/paper	
Final Oral or Written Examination	
Coursework Option - 9 hours	
Complete 8 additional hours of coursework	
Final Oral or Written Examination	
Total Hours	**30-33**

[*]   Students who do not hold a baccalaureate degree in engineering may be required to take a set of undergraduate engineering courses above and beyond the minimum coursework requirements.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.E degree program that completes degree requirements in two years is as follows.

First Year			
Fall	**Hours**	**Spring**	**Hours**
Course	3	Course	3
Course	3	Course	3
Course	3	Course	3
	9		**9**
Second Year			
Fall	**Hours**	**Spring**	**Hours**
Course	3	Research	9
Course	3		

Research		3	
		9	**9**

Total credit hours: 36

Curriculum in Master of Science in Energy Systems Engineering

A candidate for the M.S. degree in energy systems engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the specific department in which the student's concentration is in.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level or above		
Extraction		3
Examples include:		
MINE 411	Rock Mechanics/Ground Control	
MINE 505	Integrated Mining Systems	
MINE 611	Advanced Ground Control-Coal Mines	
or any other approved course in the area of extraction		
Conversion		3
Examples include:		
CHE 414	Coal Conversion Engineering	
MINE 427	Coal Preparation	
MAE 438	Introduction to Gas Dynamics	
MAE 528	Introduction to Fuel Cell Technology	
MINE 627	Advanced Coal Preparation	
or any other approved course in the area of conversion		
Distribution/storage		3
Examples include:		
EE 533	Computer Applications in Power System Analysis	
PNGE 471	Natural Gas Production and Storage	
or any other approved course in the area of distribution/storage		
Utilization		3
Examples include:		
MAE 424	Applications in Heat Transfer	
MAE 425	Internal Combustion Engines	
IENG 433	Energy Efficiency and Sustainability	
MAE 427	Heating, Ventilating, and Air Conditioning	
MAE 525	Heavy Duty Vehicle Emissions	
or any other approved course in the area of utilization		
Technical Electives selected from the table of technical electives below.		12
Complete 1 of the following options:		6-9
Thesis Option - 6 hours		
Research (6 hours)		
Written Research Proposal		
Thesis		
Final Oral or Written Examination		

Problem Report Option - 9 hours

Complete 6 additional hours of Technical Electives. A minimum of 12 credit hours of the 18 credit hours of technical elective course work must be taken in the Statler College.

Research (3 hours)

Written Research Proposal

Formal written report or professional report/paper

Final Oral or Written Examination

Coursework Option - 9 hours

Complete 9 additional hours of Technical Electives.

Final Oral or Written Examination

Total Hours	**30-33**

*   Students who do not hold a baccalaureate degree in engineering may be required to take a set of undergraduate engineering courses above and beyond the minimum coursework requirements.

TECHNICAL ELECTIVES

Any 400 level or higher CE, CHE, CPE, EE, IENG, MAE, MINE, or PNGE course dealing with issues related to extraction, conversion, distribution/storage, and utilization of energy.

ARE 445	Energy Economics	3
WDSC 444	Bio-based Energy Systems	3
ARE 410	Environmental and Resource Economics	3
ARE 632	Natural Resource and Environmental Economics	3
RESM 440	Foundations of Applied Geographic Information Systems	2
RESM 480	Environmental Regulation	3
FOR 670	Human Dimensions of Natural Resource Management	3
BADM 511	Managerial Economics	3
BADM 531	Operation/Supply Chain	3
BADM 532	Corporate Finance	3
ILR 511	Human Capital Management	3
LAW 613	International Environmental Law	2-3
LAW 604	Natural Resources	3
LAW 630	Energy Law	3
LAW 689D	Seminar: Environmental Law	2
LAW 689W	Seminar:Issues in Energy Law	2

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

SUGGESTED PLAN OF STUDY

The plan below illustrates the Problem Report Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.E.S.E degree program that completes degree requirements in one year is as follows.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
Critical Subject Area Courses	12	Technical Elective Courses	15	Research	3
Technical Elective	3				
	15		**15**		**3**

Total credit hours: 33

Curriculum in Master of Science in Materials Science and Engineering

A candidate for the M.S. degree in Materials Science and Engineering must comply with the rules and regulations outlined in the WVU Graduate catalog and the specific requirements of the Statler College and the specific department in which the student's concentration is in.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level or above		
Core Courses		
MAE 583	Thermodynamics and Kinetics of Materials	3
MAE 580	Crystallography and Crystals	3
MAE 649	Microscopy of Materials	3
MAE 694	Seminar	1
Area of Emphasis Requirement		15
Complete 1 of the following options:		6-9
Thesis Option - 6 hours		
Any 697	Research (6 hours)	
Written Proposal/Oral Presentation		
Oral Defense		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 9 hours		
Complete 6 additional hours of coursework		
Any 697	Research (3 hours)	
Written Proposal/Oral Presentation		
Oral Defense		
Formal written report or professional report/paper		
Final Oral or Written Examination		
Total Hours		**31-34**

[*]   All M.S.M.S.E. students, whether pursuing the thesis option or the problem report option, are allowed to include up to a maximum of three (3), 3-credit courses at the 400 level towards the coursework requirements for their degrees.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

SUGGESTED PLAN OF STUDY

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.M.S.E. degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours
MAE 580	3	AOE Course 1	3
MAE 583	3	AOE Course 2	3

MAE 649		3 MAE 697	3
MAE 694		1	
		10	**9**
Second Year			
Fall		**Hours Spring**	**Hours**
AOE Course 3		3 AOE Course 5	3
AOE Course 4		3 MAE 697	6
MAE 697		3	
		9	**9**

Total credit hours: 37

Areas of Emphasis

Students must complete one of the following Areas of Emphasis

- Chemical Engineering Materials (p. 382)
- Electrical Engineering Materials (p. 383)
- Mechanical Engineering Materials (p. 383)

Chemical Engineering Materials Area of Emphasis Requirements

CHE Electives *

Select 2 of the following:		6
CHE 461	Polymer Science and Engineering	
CHE 462	Polymer Processing	
CHE 463	Polymer Composites Processing	
CHE 466	Electronic Materials Processing	
CHE 475	Chemical Process Safety	
CHE 531	Mathematical Methods in Chemical Engineering	
CHE 615	Transport Phenomena	
CHE 620	Thermodynamics	
CHE 625	Chemical Reaction Engineering	
CHE 720	Applied Statistical and Molecular Thermodynamics	
CHE 761	Polymer Rheology	
BMEG 482	Introduction to Tissue Engineering	

Additional Electives *

Select 3 of the following:		9
CHEM 422	Intermediate Inorganic Chemistry	
CHEM 423	Inorganic Synthesis Laboratory	
CHEM 444	Colloid and Surface Chemistry	
CHEM 514	Mass Spectrometry Principles and Practices	
CHEM 521	Organometallic Chemistry	
CHEM 540	Bonding and Molecular Structure	
CHEM 547	Chemical Crystallography	
CHEM 713	Electrochemistry and Instrumentation	
CHEM 714	Analytical Atomic Spectrometry	
CHEM 723	Physical Methods in Inorganic Chemistry	
CHEM 725	Inorganic Reactions and Mechanisms	
EE 528	Biomedial Microdevices	
EE 550	Advanced Semiconductor Electronics	
EE 650	Optoeletronics	
MAE 446	Mechanics of Composite Materials	
MAE 528	Introduction to Fuel Cell Technology	
MAE 543	Advanced Mechanics of Materials	

MAE 640	Continuum Mechanics
MAE 641	Theory of Elasticity 1
MAE 643	Inelastic Behavior of Engineering Materials
MAE 644	Fracture Mechanics
MAE 646	Advanced Mechanics of Composite Materials
MAE 687	Materials Engineering
MAE 650	Mechanical Metallurgy
PHYS 471	Solid State Physics
PHYS 771	Introduction to Solid State Physics
PHYS 772	Semiconductor Physics
PHYS 773	Collective Phenomena in Solids
PHYS 774	Optical Properties of Solids
Total Hours	**15**

*   Students completing the problem report option must take an additional 2 courses (6 credit hours) from either set of electives.

Electrical Engineering Materials Area of Emphasis Requirements

Select 4 of the following: [*]		12
CHE 466	Electronic Materials Processing	
EE 435	Introduction to Power Electronics	
EE 437	Fiber Optics Communications	
EE 455	Introduction to Microfabrication	
EE 457	Fundamentals of Photonics	
EE 528	Biomedial Microdevices	
EE 550	Advanced Semiconductor Electronics	
EE 551	Linear Integrated Circuits	
EE 650	Optoeletronics	
PHYS 771	Introduction to Solid State Physics	
PHYS 772	Semiconductor Physics	
PHYS 773	Collective Phenomena in Solids	
Select 1 additional course in consultation by the AEC. [*]		3
Total Hours		**15**

*   Students completing the problem report option must take an additional 2 courses (6 credit hours).

Mechanical Engineering Materials Area of Emphasis Requirements

MAE Electives [*]		
Complete at least 2 of the following:		6
MAE 446	Mechanics of Composite Materials	
MAE 528	Introduction to Fuel Cell Technology	
MAE 543	Advanced Mechanics of Materials	
MAE 640	Continuum Mechanics	
MAE 641	Theory of Elasticity 1	
MAE 643	Inelastic Behavior of Engineering Materials	
MAE 644	Fracture Mechanics	
MAE 646	Advanced Mechanics of Composite Materials	
MAE 650	Mechanical Metallurgy	
MAE 687	Materials Engineering	
Math and Science Electives [*]		
Complete at least 2 of the following:		6
CHE 531	Mathematical Methods in Chemical Engineering	
EE 463	Digital Signal Processing Fundamentals	

EE 465	Introduction to Digital Image Processing
EE 515	Linear Control Systems
EE 517	Optimal Control
IENG 518	Technology Forecasting
IENG 553	Applied Linear Programming
MAE 623	Conduction Heat Transfer
MAE 633	Computational Fluid Dynamics
MAE 640	Continuum Mechanics
MAE 645	Energy Methods in Applied Mechanics
MATH 420	Numerical Analysis 1
MATH 441	Applied Linear Algebra
MATH 456	Complex Variables
MATH 465	Partial Differential Equations
MATH 521	Numerical Analysis
MATH 522	Numerical Solution of PDE
MATH 541	Modern Algebra
MATH 543	Linear Algebra
MATH 545	Number Theory 1
MATH 551	Real Variables 1
MATH 555	Complex Variables 1
MATH 563	Mathematics Modeling
MATH 564	Intermediate Differential Equations
MATH 567	Advanced Calculus
MATH 568	Advanced Calculus
MATH 573	Graph Theory
PHYS 461	Thermodynamics and Statistical Mechanics
PHYS 611	Introduction to Mathematical Physics
STAT 513	Design of Experiments
STAT 545	Applied Regression Analysis
STAT 561	Theory of Statistics 1
STAT 562	Theory of Statistics 2

Additional Electives [*]

Complete at least 1 of the following:		3
CHE 461	Polymer Science and Engineering	
CHE 462	Polymer Processing	
CHE 463	Polymer Composites Processing	
CHE 466	Electronic Materials Processing	
CHE 475	Chemical Process Safety	
CHE 531	Mathematical Methods in Chemical Engineering	
CHE 615	Transport Phenomena	
CHE 620	Thermodynamics	
CHE 625	Chemical Reaction Engineering	
CHE 720	Applied Statistical and Molecular Thermodynamics	
CHE 761	Polymer Rheology	
BMEG 482	Introduction to Tissue Engineering	
CHEM 422	Intermediate Inorganic Chemistry	
CHEM 423	Inorganic Synthesis Laboratory	
CHEM 444	Colloid and Surface Chemistry	
CHEM 514	Mass Spectrometry Principles and Practices	
CHEM 521	Organometallic Chemistry	
CHEM 540	Bonding and Molecular Structure	
CHEM 547	Chemical Crystallography	

CHEM 713	Electrochemistry and Instrumentation
CHEM 714	Analytical Atomic Spectrometry
CHEM 723	Physical Methods in Inorganic Chemistry
CHEM 725	Inorganic Reactions and Mechanisms
EE 528	Biomedial Microdevices
EE 550	Advanced Semiconductor Electronics
EE 650	Optoeletronics
PHYS 471	Solid State Physics
PHYS 771	Introduction to Solid State Physics
PHYS 772	Semiconductor Physics
PHYS 773	Collective Phenomena in Solids
PHYS 774	Optical Properties of Solids
Total Hours	**15**

*   Students completing the problem report option must take an additional 2 courses (6 credit hours) from any set of electives.

Curriculum in Doctor of Philosophy – Materials Science and Engineering

A candidate for the Ph.D. degree with a major in materials science and engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College.

Program Requirements

The doctor of philosophy degree with a major in materials science and engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of materials science and engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum GPA of 3.0 is required in all courses.

Course Requirements *	
500-level or higher coursework	18
Seminar	2
Research	24
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**44**

*   Students admitted to the Ph.D. program must have completed or will need to complete the following set of core courses or equivalent: MAE 583, MAE 580, MAE 649.

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than the end of the third semester of enrollment in their Ph.D. program. This examination is designed to assess the basic competency of students to determine whether or not they have sufficient knowledge of the discipline to undertake independent research. The structure of the Ph.D. qualifying examination for all students pursuing the Ph.D. degree in Materials Science and Engineering will be comprised of two components: a written examination that will test on the student's knowledge in the three core areas studied in MAE 583 Thermodynamics and Kinetics of Materials, MAE 580 Crystallography and Crystals, and MAE 649 Microscopy of Materials or their equivalent, and a second examination that will be administered by the MS&E Faculty in the home department of the student's Ph.D. advisor, and which should be consistent with the format used by that program/department for their qualifying exam. These two examinations will receive equal weighting in determining the student's overall score on the qualifying examination. Students who do not pass either

part or both parts of this exam on their initial attempt will be allowed a second attempt to pass either or both parts of the qualifying exam. If they are not successful on their second attempt, then they will be dismissed from the program.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research. After passing the qualifying examination, the student must submit to the AEC a written research proposal of his/her planned dissertation work and successfully defend it in an oral examination. The research proposal must be approved by the student's AEC. A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal, and receives the college's approval becomes a candidate for a Ph.D. degree. Thereafter, the student will officially be engaged in dissertation research.

Final Examination

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC.

Department of Chemical Engineering

Degrees Offered

- Masters of Science, Chemical Engineering (M.S.Ch.E.)
- Doctor of Philosophy, Chemical Engineering (Ph.D.)

The Department of Chemical Engineering, with fourteen active tenure-track faculty members, approximately 130 undergraduates, and thirty-forty graduate students, has one of the oldest doctoral-granting programs in the university. From the initial doctoral degree in 1932, the graduate course program has been based on advanced chemical engineering fundamentals, while the research program has reflected a balance of fundamental research areas and their application to relevant technological areas such as biomedical, bioengineering, catalysis, coal conversion, energy, fuels, materials, polymer processing, systems control, and dynamic simulation.

Degree Programs

The department is authorized to admit students to the following degree programs: master's of science in chemical engineering (M.S. Ch.E.), master's of science in engineering (M.S.E.), and doctor of philosophy (Ph.D.). A problem report option is also available as an alternative to the traditional research based master's degree. Students in these programs must comply with the rules and regulations as presented in the general requirements for graduate work in the college and in the Department of Chemical Engineering. Students interested in pursuing work for a master's or doctoral degree in chemical engineering should contact the department for copies of the required guidelines and application information.

Program Outcomes

Holders of graduate degrees will understand the advanced principles of chemical engineering, which include reaction engineering, transport phenomena, and thermodynamics.

- Holders of graduate degrees will have an expert-level understanding of the background and theory/principles of their research topics.
- Holders of Ph.D. degrees will be able to initiate research ideas in order to solve specific problems and to write research proposals on these ideas.
- Holders of Ph.D. degrees will have furthered a novel research idea.
- Holders of graduate degrees will be able to plan research projects, to perform the tasks, and to draw conclusions based on sound scientific and engineering principles.
- Holders of graduate degrees will be able to write technical articles for publication in refereed journals and to make oral and poster presentations at technical meetings.
- Holders of graduate degrees will demonstrate initiative in research planning and management, including safety and environmental issues.
- Holders of graduate degrees will be technically prepared for a lifetime of continuing education.
- Holders of graduate degrees will understand professional and ethical responsibilities.

Areas of Research

The Chemical Engineering faculty are presently involved in a broad spectrum of research areas which include biomedical and biochemical engineering, systems biology, cancer, bionanotechnology, biomaterials, stem cell technology, dynamic simulation, control systems, molecular dynamics, polymers and biopolymers, catalysis, energy, hydrates, fuels, fuel cells, low-dimensional and high-temperature electronic materials, and reaction engineering. These research activities impact economic development, national security, the stability and sustainability of the energy supply, and many quality-of-life issues.

Faculty members possess a wide variety of industrial experience and are routinely in contact with their counterparts in industry. This contact with real engineering problems enables them to convey a practical experience to students while keeping in perspective many of the fundamental concepts

involved in graduate study. The faculty is nationally and internationally recognized through the publication of text books, monograph series, and technical papers. They routinely participate in national and international conferences and advisory meetings. In addition, faculty members have taught short courses throughout the United States and abroad.

FACULTY
CHAIR
- Rakesh Gupta - Ph.D. (University of Delaware)
  Berry Professor and Chair, Polymer Processing, Rheology, Composite Materials

PROFESSORS
- Eugene V. Cilento - Ph.D. (University of Cincinnati)
  Dean, Physiological Transport Phenomena, Biomedical Engineering, Image Analysis, Mathematical Modeling
- Pradeep Fulay - Ph.D. (University of Arizona)
  Associate Dean for Research, Advanced Electronics, Magnetic Materials and Devices, Flexible Electronics, Synthesis and Processing of Nanomaterials
- Richard Turton - Ph.D. P.E. (Oregon State University)
  Bolton Professor, Fluidization, Chemical Process Design, Particle Processing, Powder Processing
- John W. Zondlo - Ph.D. (Carnegie Mellon University)
  Coal Enhancement and Utilization, Carbon Science, Fuel Cells

ASSOCIATE PROFESSOR
- Brian J. Anderson - Ph.D. (Massachusetts Institute of Technology)
  GE Materials Professorship, Natural Gas Hydrates, Sustainable Energy Development, Molecular Dynamics,Quantum Chemical Calculations
- Debangsu Bhattacharyya - Ph.D. (Clarkson University)
  Integrated Gasification Combined Cycle (IGCC), Chemical Looping, Fuel Cells (SOFC & PEM), Optimization, Dynamic Modeling of Process Systems, Process Control
- David J. Klinke - Ph.D. (Northwestern University)
  Systems Biology, Kinetics, Cellular Signal Transduction Pathways, Immunology, Mathematical Modeling, Bioengineering
- Charter D. Stinespring - Ph.D. (West Virginia University)
  Semiconductor Growth and Etching, Surface Kinetics, Thin Films, Electronic Materials

ASSISTANT PROFESSOR
- Cerasela Z. Dinu - Ph.D. (Dresden University of Technology)
  Nanomaterials, Bionanotechnology, Biomimetics, Synthetic and Molecular Biology
- Fernando V. Lima - Ph.D. (Tufts University)
  Process Design and Operability, Model-based Control and Optimization, State Estimation and Process Identification, Emerging Energy Systems and Sustainable Processes
- Hanjing Tian - Ph.D. (Lehigh University)
  Chemical looping combustion, CO2 capture, Shale gas utilization, Biomass gasification and refinery
- Yong Yang - Ph.D. (Ohio State University)
  Stem Cell Technology, Polymer Micro/Nanotechnology, Biomaterials

RESEARCH ASSISTANT PROFESSOR
- Sushant Agarwal - Ph.D. (West Virginia University)
  Polymer Processing, Rheology, Nano-composites, Dispersions

TEACHING ASSISTANT PROFESSOR
- Robin S. Hissam - Ph.D. (University of Delaware)
  Biomaterials, Polypeptides, Drug delivery, Bioengineering and materials science

ADJUNCT PROFESSORS
- Deepak Doraiswamy - Ph.D. (University of Delaware)
- Joseph D. Henry - Ph.D. (University of Michigan)
  Energy Management, Science and Technology Policy
- Charles M. Jaffe - Ph.D. (University of Colorado)
  Theoretical Chemistry, Molecular and Atomic Physics, Nonlinear Dynamics, Astrodynamics, Forensics
- George E. Keller, II - Ph.D. (Pennsylvania State University)
  Separations, Commercial Practice

- Mahesh Padmanabhan - Ph.D. (University of Minnesota)
  Foods, Polymer Science, Rheology
- David L. Walker - Ph.D. (West Virginia University)
  Signal Analysis, Neural Nets, Forensics
- Robert H. Wildi - B.Ch.E. (Cleveland State University)
  Polymer Extrusion
- Stephen Zitney - Ph.D. (University of Illinois at Urbana-Champaign)
  Dynamics, Control and optimizationof energy systems; Computational fluid dynamics (CFD) and Process Co-simulation; Pulverized coal combustion; Integrated gasification combined cycle (IGCC); Chemical looping; Supercritical CO2 power cycles; CO2 capture

ADJUNCT ASSOCIATE PROFESOR

- Bingyun Li - Ph.D., (Chinese Academy of Sciences)
  Associate Professor of Orthopedics, Bioengineering and Advanced Biomedical Devices, Nanotechnology Sorbents, Coatings and Capsules

PROFESSORS EMERITUS

- Eung H. Cho - Ph.D. (University of Utah)
  Mineral Processing, Leaching, Solvent Extraction, Environmental Science
- Joseph A. Shaeiwitz - Ph.D. (Carnegie-Mellon University)
  Design, Design Education, Outcomes Assessment
- Alfred H. Stiller - Ph.D. (University of Cincinnati)
  Physical/Inorganic/Solution Chemistry, Coal Liquefaction, Carbon Science
- Ray Y.K. Yang - Ph.D. (Princeton)
  Biochemical and Chemical Engineering, Nonlinear Dynamics

Chemical Engineering Masters and Doctoral Admissions Requirements

All applicants for Chemical Engineering Masters and Doctoral Programs must satisfy the following criteria to qualify for admission.

- A minimum cumulative grade point average of 3.0, or equivalent, (on a 4.0 scale) in all previous college work.

- Three letters of reference.

- International students must demonstrate proficiency in communicating in English (a minimum TOFEL score of 550, or iBT score of 79, or IELTS score of 6.5).

- International students must provide Graduate Record Examination scores.(This is recommended for all students and may be required of some students to assist in judging their chances for success in the program.)

- A baccalaureate degrees in chemical engineering, other engineering fields, mathematics, or basic sciences.

Chemical Engineering Masters and Doctoral Degree Programs

Students holding a baccalaureate degree in chemical engineering are eligible for the Master of Science in Chemical Engineering (M.S.Ch.E.) Program.

- Students not holding a baccalaureate degree in chemical engineering are eligible for the Masters of Science in Engineering (M.S.E.) Program.These students must take an additional nine hours of junior level course work in the first two semesters. Alternatively, students taking a total of 18 hours at junior level in the first two semesters are eligible for the M.S.Ch.E. Program. Admitted students will receive a letter specifying the course work required in the first two semesters.

- Admission to the Ph.D. Program is open to all qualified students.Generally students without a B.S. or M.S. in chemical engineering are not admitted directly to the Ph.D. Program.

- A maximum of twelve semester hours from other institutions may be accepted at WVU for credit toward either the masters or doctoral degrees.

- To remain in good-standing, a regular student must achieve and maintain a minimum overall 3.0 GPA in all graduate level courses as well as in all junior level courses.

Curriculum in Master of Science in Chemical Engineering

A candidate for the M.S. degree in chemical engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Chemical Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum GPA of 3.0 is required in all courses

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level or above		
A grade of C or higher must be earned in all required courses		
CHE 615	Transport Phenomena	3
CHE 620	Thermodynamics	3
CHE 625	Chemical Reaction Engineering	3
Full-time Students are required to take a Seminar course each semester		4-10
CHE 796	Graduate Seminar	
Select courses from the following based on degree path:		15
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PHGE, PHYS, SAFM, SENG, or STAT courses 400-799		
Complete 1 of the following options:		6-9
Thesis Option - 6 hours		
CHE 697	Research (6 hours)	
Written Proposal/Oral Presentation		
Oral Defense		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 9 hours		
Complete 6 additional hours of coursework		
CHE 697	Research (3 hours)	
Written Proposal/Oral Presentation		
Oral Defense		
Formal written report or professional report/paper		
Final Oral or Written Examination		
Total Hours		**34-43**

[*] Students who do not hold a baccalaureate degree in chemical engineering are required to take a set of undergraduate chemical engineering courses above and beyond the minimum coursework requirements.
For students without a B.S.Ch.E., the junior level courses may include: CHE 310, CHE 311, CHE 312, CHE 315, CHE 320, and CHE 325. M.S.E. students take only CHE 315, CHE 320, and CHE 325.

EXAMINATION

M.S. students following the thesis or problem report option must prepare a written research proposal and oral presentation. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination. This oral defense is administered by the student's AEC and must be completed by the end of the second semester after the student begins his/her research.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. For students with a B.S.Ch.E., twenty-four months are typically required to complete the M.S.Ch.E. degree work. For students without a B.S.Ch.E., the time to complete the M.S.Ch.E. is typically thirty-six months, while the time to complete the M.S.E. is typically thirty months.

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.Ch.E degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours
CHE 796	1	CHE 796	1
CHE 615	3	CHE 625	3
CHE 620	3	Additional Course	3
Additional Course	3	CHE 697	3
	10		**10**

Second Year

Fall	Hours	Spring	Hours
CHE 796	1	CHE 796	1
CHE 697	3	CHE 697	6
Additional Course	3	Additional Course	3
Additional Course	3		
	10		**10**

Total credit hours: 40

Curriculum in Doctor of Philosophy – Chemical Engineering

A candidate for the Ph.D. degree with a major in chemical engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Chemical Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in chemical engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of chemical engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum GPA of 3.0 is required in all courses exclusive of research credits.		
A minimum GPA of 3.0 is required in all CHE courses exclusive of research credits.		
A grade of C or higher must be earned in all required courses		
Course Requirements [*]		
CHE 615	Transport Phenomena	3
CHE 620	Thermodynamics	3
CHE 625	Chemical Reaction Engineering	3
Select from the following based on degree path: [**]		9
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799 excluding courses numbered 785, 796, or 797		
Full-time Students are required to take one Seminar course each semester		4-10
CHE 796	Graduate Seminar	
Research		24
CHE 797	Research	
Examinations		
Qualifying Exam		
Candidacy Exam		
Final Exam		
Total Hours		**46-52**

*   Students who do not hold a baccalaureate degree in chemical engineering are required to take a set of undergraduate chemical engineering courses above and beyond the minimum coursework requirements.

A minimum of thirty-six hours of coursework and twenty-four hours of independent research beyond a bachelor's degree, or eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

**   Students must complete a minimum of nine semester hours of a coherent set of courses taken outside of the department. These courses may be related to the major research area. Non-technical courses are considered only under exceptional circumstances. All courses must be approved by the AEC and the academic advisor.

Examinations

QUALIFYING EXAM

All Ph.D. students must pass a Ph.D. qualifying examination given in their first year at WVU. This examination is designed to assess the basic competency of students in the chemical engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

Within a maximum of one semester after passing the PhD qualifying examination or entering the Ph.D. program, whichever is later, a student must successfully defend his/her dissertation research proposal. This proposal is a written document which must be reviewed and accepted by their AEC and subsequently defended in an oral presentation. The research work for the doctoral dissertation should show a high order of originality on the part of the student and must offer an original contribution to the field of engineering science.

A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research proposal and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows.

First Year

Fall	Hours	Spring	Hours
CHE 796	1	CHE 796	1
CHE 615	3	CHE 625	3
CHE 620	3	Additional Course	3
Additional Course	3	CHE 797	3
	10		**10**

Second Year

Fall	Hours	Spring	Hours
CHE 796	1	CHE 796	1
CHE 797	6	CHE 797	9
Additional Course	3		
	10		**10**

Third Year

Fall	Hours	Spring	Hours
CHE 796	1	CHE 796	1

CHE 797	7	CHE 797	7
	8		**8**

Total credit hours: 56

Department of Civil and Environmental Engineering

Degrees Offered

- Master of Science, Civil Engineering (M.S.C.E.)
- Doctor of Philosophy, Civil Engineering (Ph.D.)

The Department of Civil and Environmental Engineering offers the degree of master's of science in civil engineering (M.S.C.E.). In conjunction with the Benjamin M. Statler College of Engineering and Mineral Resources, the master's of science in engineering (M.S.E.) and the doctor of philosophy degrees are available with emphases in civil engineering.

Program Objectives

- Have the ability to work on multidisciplinary teams, have high technical competence, and have the ability to meet present and future challenges in a specialty area of civil and environmental engineering
- Have the ability to effectively plan and execute scientific research or other high-level investigations using the most current methods and techniques in the civil and environmental engineering fields
- Have the ability to effectively communicate the results of their research or investigations through writing and oral presentations
- Have the ability to contribute to the body of engineering knowledge and/or to economic growth by developing the science, the materials, and the technology necessary to deliver vital infrastructure services in the most cost effective manner while protecting the health, safety, and welfare of human society

Program Outcomes

- Graduates will have an ability to function on teams involving multiple civil engineering specialties.
- Graduates will have an ability to apply advanced methodologies in their specialty area.
- Graduates will have an ability to effectively communicate technical information.
- Graduates will have an ability to design and conduct experiments, analyze and interpret data, and develop recommendations.
- Graduates will have an understanding of professional and ethical responsibility.
- Graduates will have an ability to understand the impact of engineering solutions in global and societal context.
- Graduates will have a recognition of the need to engage in life-long learning.
- Graduates will have an ability to use contemporary techniques, skills, and tools necessary for engineering practice in education, industry, and/or government.

Student Learning Outcomes

- Graduates will meet the academic standards required by WVU for those in graduate school while completing courses pertinent to their specialty area and as specified in their plan of study.
- Graduates will conduct experimental or investigatory work necessary to satisfy the requirements of either the thesis option or report option for graduation.
- Graduates will write and orally defend a thesis, a report, or a dissertation.
- Graduates will serve in primary roles as graduate research assistants on research projects or on problem investigations sponsored by companies, associations, or government agencies looking for new methodology or science to resolve problems associated with the planning, design, construction, operation, and maintenance of the infrastructure or for related needs.

Areas of Concentration

There are four major areas of interest of the faculty and graduate studies:

- Environmental and hydro-technical engineering, which includes wetland and natural stream restoration; water, waste water, and industrial waste treatment; site remediation; groundwater hydraulics, hydrology, sediment transport, fluid mechanics, water and health, and satellite remote sensing of hydrological processes
- Geotechnical engineering, which includes soil mechanics, foundations engineering, soil-structure interaction, geomechanics, geoenvironmental, groundwater and seepage, geosynthetics, contaminant transport, earthwork design, and waste by-product utilization
- Transportation engineering, which includes planning, design, construction, operations, and maintenance of transportation facilities/systems (roadways, railroads, airports, and public transportation) as well as related areas of infrastructure management and expert systems

- Structural engineering, which includes advanced structural mechanics, structural dynamics, bridge engineering, building design for static and dynamic loads, advanced materials for civil infrastructure, and nondestructive testing and evaluation

Faculty

The Department of Civil and Environmental Engineering has a full-time faculty of twenty-three who are active in teaching, research, and professional commitments. Many of the faculty members are licensed professional engineers registered in one or more states and are involved in state, regional, and national professional organizations, serving on numerous technical committees. They are successful researchers and have published extensively in technical journals. The Civil and Environmental Engineering faculty produces graduates who can assume the problem solving, decision-making, and technical leadership roles of a professional engineer and who have the sound educational background for the continuing professional development the field requires.

Students tailor their program of study to pursue individual topics of interests with guidance from a faculty advisor. Opportunities abound within the master's and doctoral tracks for a research experience in which the student tackles an engineering problem individually with guidance from a faculty advisor. The graduate program in civil engineering was established with the aim of developing its students' abilities to use today's contemporary methods of engineering analysis and design to solve tomorrow's engineering problems.

FACULTY

CHAIR

- Radhey Sharma - Ph.D. (University of Oxford)
  Sustainable Infrastructure, Geotechnical Engineering and Geoenvironmental, Energy Engineering

PROFESSORS

- Hung-Liang (Roger) Chen - Ph.D. (Northwestern University)
  Structural Dynamics, Structural Experimentation, Dynamic Soil-Structure Interaction, Damage in Reinforced Concrete Structures, Nondestructive Evaluation, Concrete
- Hota GangaRao - Ph.D., P.E. (North Carolina State University)
  Maurice A. and Jo Ann Wadsworth Distinguished Professor, Director of the Constructed Facilities Center, Director of the NSF Center for Integration of Composites into Infrastructure, Mathematical Modeling of Engineering Systems, Bridge Engineering, Composite Material Characterization and Implementation
- Udaya B. Halabe - Ph.D., P.E. (Massachusetts Institute of Technology)
  Nondestructive Evaluation and In-Situ Condition Assessment of Structures and Materials, Elastic and Electromagnetic (Radar) Wave Propagation, Structural Analysis and Design, Structural Dynamics and Wind/Earthquake Resistant Design
- David R. Martinelli - Ph.D. (University of Maryland)
  Transportation Engineering, Traffic Operations, Systems Analysis, Infrastructure Management
- Hema J. Siriwardane - Ph.D., P.E. (Virginia Polytechnic Institute and State Univeristy)
  Geomechanics/Geotechnical Engineering, Finite Element Method, Computer Applications
- John P. Zaniewski - Ph.D., (University of Texas)
  Asphalt Technology Professor, Pavement Materials, Design, Construction, Maintenance, Infrastructure Management

ASSOCIATE PROFESSOR

- Karl Barth - Ph.D. (Purdue University)
  Jack H. Samples Distinguished Professor of Structures, Steel Structures, Bridge Design and Rehabilitation, Connections, Stability Analysis, Experimental Mechanics
- Lian-Shin Lin - Ph.D., P.E. (Purdue University)
  Physiochemical and Biological Treatment, Innovative Wastewater Technologies, Emerging Coaminants, Sustainable Development, Watershed Pollution

ASSISTANT PROFESSORS

- Fei Dai - Ph.D. (Hong Kong Polytechnic Univeristy)
  Construction Engineering, Construction Management, Construction Information Technologies
- Seung Hong - Ph.D. (Georgia Institute of Technology)
  Hydraulic engineering, Sediment transport, Erosion control
- Leslie Clark Hopkinson - Ph.D. (Virginia Polytechnic Institute and State Univeristy)
  Surface Hydrology, Environmental Hydraulics, Ecological Engineering, River Mechanics
- Antarpreet Jutla - Ph.D. (Tufts University)
  Water Resources, Hydrology & Human Health, Remote Sensing, Issues of Scales in Dydroclimatic Processes
- John D. Quaranta - Ph.D., P.E. (West Virginia University)

Geotechnical/Geo-Environmental Engineering, Soil Testing and Characterization, Soil and Mine Waste Dewatering, Geo-Synthetics, Soil and Groundwater Remediation

- Avinash Unnikrishnan - Ph.D. (University of Texas, Austin)
  Transportation Network Analysis and Planning, Freight Network Analysis and Logistics, Intelligent Transportation Systems
- P.V. Vijay - Ph.D. (West Virginia University)
  Concrete Structures; P Composite Structures for Bridges, Buildings, and Pavements; Aging of Structures and Rehabilitation, Recycled Polymers for Infrasture, Analytical Modeling
- Jennifer L. Weidhaas - Ph.D., PE (University of California-Davis)
  Biotechnology, Bioenergy Production, Remediation of Emerging Contaminants in Soils and Ground Water
- Yoojung Yoon - Ph.D. (Purdue University)
  Infrastructure Asset Management, Risk Management in Construction, Project Management and Control, Construction Equipment Management

RESEACH ASSISTANT PROFESSORS

- Ruifeng (Ray) Liang - Ph.D. (Institute of Chemistry, Chinese Academy of Sciences)
- Eduardo Sosa - Ph.D. (University of Puerto Rico)
  Structural Stability, Finite Element Modeling, Computational Applied Mechanics, Engineering Materials, Mechanics of Materials

PROFESSORS EMERITUS

- Ronald W. Eck - Ph.D. (Clemson University)
- Donald Gray - Ph.D. (Purdue University)
- W. Joseph Head - Ph.D. (Purdue University)
- Charles R. Jenkins - Ph.D. (Oklahoma State University)
- Larry D. Luttrell - Ph.D. (Cornell University)
- William A. Sack - Ph.D. (Michigan State University)

ASSOCIATE PROFESSORS EMERITUS

- Robert N. Eli - Ph.D. (University of Iowa)
- Darrell R. Dean, Jr. - Ph.D. (Purdue University)

Admission

To be eligible for admission into the M.S.C.E. degree program, a candidate must fulfill either of the following:

- Hold or expect to receive a B.S.C.E. degree from either an accredited ABET curriculum or an internationally recognized program
- Have a superior academic record and a baccalaureate degree in another engineering field, mathematics, or science

Candidates with a baccalaureate degree in another field of engineering, mathematics, or science are also eligible for admission into the M.S.E. degree. Candidates are normally required to attain a baccalaureate level of proficiency in areas of emphasis of the department. An engineering technology (non-calculus based) degree is not sufficient qualification for admission into any of the graduate programs offered by the department.

To be eligible for admission into a doctorate of engineering program, a candidate is expected to hold or expect to receive a B.S. or an M.S. degree or equivalent in the following:

A discipline of engineering from an institution which has an ABET accredited program in that discipline which has an internationally recognized program in engineering, or mathematics and sciences (as specified by individual programs).

The other requirements for admission into the graduate programs of the department are summarized as follows:

- Grade point average of 3.0 or better (out of a possible 4.0) in all previous college work and must meet all other requirements below.
- Three reference letters; at least two of the three references should be from the institution the applicant last attended.
- International students must demonstrate proficiency in communicating in English (a minimum TOFEL score of 550, or iBT score of 79, or IELTS score of 6.5) (Students who have completed a recent four-year bachelor's degree in the the USA need not submit these scores.)
- All applicants are encouraged to submit GRE scores for fellowship and funding options. Applicants who have not received their undergraduate degree in the United States are required to submit GRE General Test scores with the Engineering Subject Test score being optional.

Provisional Admission

An applicant who is not qualified for regular graduate student admission status, due either to insufficient grade-point average, incomplete credentials, or inadequate academic background, can be admitted as a provisional student. Requirements for attaining regular student status must be stated in the letter of admission. Provisional students must sign a contract, which lists these requirements in detail, no later than their first registration.

Curriculum in Masters of Science in Civil Engineering

A candidate for the M.S. degree in civil engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Civil and Environmental Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements *	
A minimum of 60% of courses must be from 500 level or above	
A minimum cumulative GPA of 3.0 is required in all coursework used for degree requirements	
Any CE courses 500-799	15
Select the following based on degree path:	9
Any AEM, AGBI, BIOC, BIOL, BIOM, BIOS, CE, CHE, CHEM, CPE, CS, EE, ENVP, GEOL, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, STAT, or WMAN courses 400-799	
Complete 1 of the following options:	6-12
Thesis Option - 6 hours	
CE 697 Research (6 hours)	
Written Research Proposal	
Thesis	
Final Oral or Written Examination	
Problem Report Option - 9 hours	
Complete 6 additional hours of coursework	
CE 697 Research (3 hours)	
Written Research Proposal	
Formal written report or professional report/paper	
Final Oral or Written Examination	
**Coursework Option - 12 hours **	
Complete 12 additional hours of coursework	
Final Oral or Written Examination	
Total Hours	**30-36**

* Students who do not hold a baccalaureate degree in civil engineering are required to take a set of undergraduate civil engineering courses above and beyond the minimum coursework requirements.

** Although rarely permitted, this option is open to students with practical engineering experience or those who have demonstrated an ability to organize and develop a project and write a technical report. Approval to pursue this option must be obtained from the student's AEC, the graduate program coordinator, and the department chairperson.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.C.E degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours
CE Course	3	CE Course	3
CE Course	3	Additional Course	6
Additional Course	3		
	9		**9**

Second Year

Fall	Hours	Spring	Hours
CE Course	3	CE Course	3
CE 697	3	CE 697	3
	6		**6**

Total credit hours: 30

Curriculum in Doctor of Philosophy – Civil Engineering

A candidate for the Ph.D. degree with a major in civil engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Civil and Environmental Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in civil engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of civil engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

A minimum cumulative GPA of 3.0 is required in all coursework used for degree requirements

Course Requirements [*]	
Any AEM, AGBI, BIOC, BIOL, BIOM, BIOS, CE, CHE, CHEM, CPE, CS, EE, ENVP, GEOL, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, STAT, or WMAN courses 500-799	18
Research	24
CE 797 Research	
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**42**

[*]   Students who do not hold a baccalaureate degree in civil engineering are required to take a set of undergraduate civil engineering courses above and beyond the minimum coursework requirements.
A minimum of forty-two hours of coursework and thirty hours of independent research beyond a bachelor's degree, or eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

Graduate Committee

For the Ph.D. program, the student, research advisor, academic advisor, and department chairperson appoint the student's AEC. Each committee must consist of at least five members, with at least three members from CEE, and at least one from outside the department. By the end of the Ph.D. student's second semester, the student, with the advice and consent of the academic advisor, graduate coordinator, and members of the student's AEC, submits a plan of study, initiated in CEE, to the dean.

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the civil engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research. After passing the qualifying examination, the student must submit to the AEC a written research proposal of his/her planned dissertation work and successfully defend it in an oral examination. The research proposal must be approved by the student's AEC. A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal, and receives the college's approval becomes a candidate for a Ph.D. degree in CE. Thereafter, the student will officially be engaged in dissertation research. At the completion of the dissertation research, the candidate must prepare a dissertation and defend it orally at the final defense conducted by the AEC.

A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research proposal and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years beyond an M.S. degree is as follows.

First Year

Fall	Hours	Spring	Hours
CE Course	3	Course	3
CE Course	3	Course	3
CE 797	3	CE 797	3
	9		9

Second Year

Fall	Hours	Spring	Hours
Course	3	Course	3
CE 797	6	CE 797	6
	9		9

Third Year

Fall	Hours	Spring	Hours
CE 797	9	CE 797	9
	9		9

Total credit hours: 54

Lane Department of Computer Science and Electrical Engineering

Degrees Offered

- Masters of Science, Computer Science (M.S.C.S.)
- Masters of Science, Electrical Engineering (M.S.E.E.)
- Masters of Science, Software Engineering (M.S.S.E)
- Doctor of Philosophy, Computer Engineering (Ph.D.)
- Doctor of Philosophy, Electrical Engineering (Ph.D.)

- Doctor of Philosophy, Computer Science (Ph.D.)

Graduate Certificates Offered

- Graduate certificate in software engineering
- Graduate certificate in computer forensics
- Graduate certificate in biometrics & information assurance
- Graduate certificate in interactive technologies & serious gaming

Overview of Programs

The Lane Department of Computer Science and Electrical Engineering offers master's programs leading to a master's of science in computer science (M.S.C.S.), a master's of science in electrical engineering (M.S.E.E.), and a master's of science in software engineering (M.S.S.E.). It also participates in the College of Engineering and Mineral Resources interdisciplinary program offering the master's of science in engineering (M.S.E.). Master of science students must comply with the rules for master's degrees as set forth by the college in the Guidelines for Masters Degree Programs Offered in the College of Engineering and Mineral Resources and by the Department in the Masters of Science Program Guidelines.

The department also offers programs leading to the doctor of philosophy (Ph.D.) in computer science and the doctor of philosophy (Ph.D.) in engineering with specialization in electrical engineering or computer engineering. Ph.D. in electrical or computer engineering students must comply with the rules set forth by both the College's Doctor of Philosophy Program Guidelines and by the Department in the Doctor of Philosophy Program Guidelines. Ph.D. students in computer and information sciences must comply with the rules set forth in the Handbook for Computer Science Graduate Students.

The department also offers four graduate certificates which may be completed as part of a degree program or as a certificate only.

Program Educational Objectives and Outcomes

The common educational objectives of all the graduate programs in the Lane Department is to produce graduates who have the knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study. The requirements and outcomes of specific degree and certificate programs are described in the catalog pages specific to those programs.

Facilities and Centers

The Lane Department of CSEE has its main office, instructional lab, and research lab space on the Evansdale campus occupying four floors of the Engineering Sciences Building and one floor of the Engineering Research Building. The department also has facilities located in Armstrong Halls on the downtown campus.

The department is home to two university research centers: the Center for Identification Technology Research (CITeR), which is designated an Industry/University Cooperative Research Center by the National Science Foundation; and the Center for Advanced Power & Energy Research (APERC). The university is also designated as a Center of Excellence in Information Assurance Research by the National Security Agency and Department of Homeland Security. The department and college host a modern 4000 square foot clean room facility for device and sensor fabrication, under the management of the university's Shared Research Facilitlies. The university is also home to an oustanding set of faculty-led laboratory facilities, in areas that include electronic and phontonic material, biometrics, communications, digital and analog signal processing, power electronics, robotics, high reliability software, computer security, computer forensics, articial intelligence, virtual environments, theoretical computer science, and electric vehicles.

All graduate students have access to a broad variety of computing platforms for both classwork and research. The department operates and maintains a variety of dedicated computer systems, clusters, and networks supporting both the instructional and research activities of the department. These systems include numerous Windows workstations and a cluster of Linux Servers. An additional laboratory by Hewlett-Packard supports large databases and medical informatics. Students have access to a rich set of software packages and tool suites available either on department systems or the College of Engineering and Mineral Resources systems. All department, college, and university computing resources are fully networked via Ethernet and FDDI with a campus-wide ATM backbone enabling interface to the statewide ATM network. All computing systems have internet access enabling worldwide connectivity and access to several additional computing services via the Pittsburgh Supercomputing Center. The university is also a member of Internet2, of which faculty in the department are active participants.

Areas of Research

The department is enthusiastically and vigorously involved in research, technical publication, and graduate instruction at the forefront of the field. Academic and research activity is organized into five areas:

- Electronics and photonics
- Systems and signals
- Computer systems
- Software and knowledge engineering
- Theory of computation

FACULTY

CHAIR

- Brian Woerner - Ph.D. (Purdue University)
  Wireless Communications and Networking

PROFESSORS

- Donald Adjeroh - Ph.D. (Chinese University of Hong Kong)
  Graduate Coordinator for Computer Science, Multimedia Information Systems (Image, Video, and Audio), Distributed Multimedia Systems
- Hany Ammar - Ph.D. (University of Notre Dame)
  Risk Assessment, Software Engineering, Biometrics, Performance and Dependability Analysis, Modeling and Evaluation of Parallel and Distributed Systems
- Muhammad Choudhry - Ph.D. (Purdue University)
  Graduate Coordinator for CpE & EE, Power System Control, DC Transmission, Stability, Power Electronics
- Parviz Famouri - Ph.D. (University of Kentucky)
  Analysis and Control of Electrical Machines, Motor Drives, Power Electronics, Electric Vehicles
- Ali Feliachi - Ph.D. (Georgia Institute of Technology)
  Power Systems, Large-Scale Systems, Control
- Powsiri Klinkhachorn - Ph.D. (West Virginia University)
  Microprocessor Applications, Computer Architecture, Binary and Non-Binary Logic
- Dimitris Korakakis - Ph.D. (Boston University)
  Semiconductor Growth, Nanotechnology, Photonic Devices, Biosensors
- Afzel Noore - Ph.D. (West Virginia University)
  VLSI Design and Testing, Software Engineering, Information Assurance and Biometrics
- Roy Nutter Jr. - Ph.D., P.E. (West Virginia University)
  Neural Networks, Microprocessor Systems, Computer Architecture, Computer Forensics
- Y. Ramana Reddy - Ph.D. (West Virginia University)
  Artificial Intelligence, Knowledge-based Simulation, Computer Graphics
- Krishnamurthy Subramani - Ph.D. (University of Maryland)
  Scheduling, Computational Biology, Computational Complexity, Polyhedral Combinatorics
- Matthew Valenti - Ph.D. (Virginia Polytechnic Institute and State University)
  Communication Theory, Wireless Systems, Error Control Coding

ASSOCIATE PROFESSORS

- Xian-An Cao - Ph.D. (University of Florida)
  Nanofabrication, Opto-electronic Devices
- Elaine Eschen - Ph.D. (Vanderbilt University)
  Graduate Coordinator for CS Ph.D. CCDM Program, Design and Analysis of Algorithms, Graph Theory, Combinatorics
- Katerina Goseva-Popstojanova - Ph.D. (University Sv. Kiril i Metodij)
  Software Reliability Engineering, Distributed Systems, Computer Security, Dependability, Performance and Performability Assessment
- David Graham - Ph.D. (Georgia Institute of Technology)
  Analog Signal Processing
- Mark Jerabek - Ph.D., P.E. (Purdue University)
  Solid State Devices and Sensors, Electromagnetics
- Dimitris Korakakis - Ph.D. (Boston University)
  Semiconductor Growth, Nanotechnology, Photonic Devices, Biosensors
- Vinodkrishnan Kulathumani - Ph.D. (The Ohio State University)
  Wireless Sensor Actuator Networks, Scalable and Fault Tolerant Distributed Systems
- Xin Li - Ph.D. (Princeton University)
  Image Processing, Computer Vision, Pattern Recognition
- James Mooney - Ph.D. (Ohio State University)
  Associate Chair, Operating Systems, Computer Architecture, Software Portability and Standards, Computer Security and Forensics
- Daryl Reynolds - Ph.D. (Texas A&M)
  Statistical Signal Processing for Communications, Iterative (Turbo) Processing, Transmitter Pre-coding, Space-time Coding and Processing
- Natalia Schmid - Ph.D. (Washington University)
  Estimation and Detection, Biometrics, Information Theory, Statistical Signal and Image Processing
- Krishnamurthy Subramani - Ph.D. (University of Maryland)

Scheduling, Computational Biology, Computational Complexity, Polyhedral Combinatorics
- Frances VanScoy - Ph.D. (University of Virginia)
  Programming Languages and Compilers, Multisensory Computing, High Performance Computing

ASSISTANT PROFESSORS

- Thirimachos Bourlai - Ph.D. (University of Surrey)
  Biomedical Image Processing, Pattern Recognition
- Yaser Fallah - Ph.D. (University of British Columbia)
  Cyber Physical Systems, Computer and Wireless Networks, Intelligent Transportation, Embedded Systems
- Guodong Guo - Ph.D. (University of Wisconsin, Madison)
  Computer Vision, Biometrics, Human Computer Interaction
- Yuxin Liu - Ph.D. (Louisiana Tech University)
  Biotechnology/Bioengineering, BioMEMS and Microfluidics, Cellular Senor, Tissue Engineering
- Sarika Khushalani Solanki - Ph.D. (Mississippi State University)
  Power/Energy Conversion, Power Systems; Controls, Signals, and Systems
- Yanfang Ye - Ph.D. (Xiamen University)
  Cybersecurity, Machine Learning

RESEARCH ASSOCIATE PROFESSORS

- Alan Barnes - Ph.D. (California Institute of Technology)
  Ion Surface Interactions, Materials Growth and Automated Document Analysis
- Sumitra Reddy - Ph.D. (West Virginia University)
  Healthcare Informatics, Componentware, Intelligent Systems, Information Technology Evolution

RESEARCH ASSISTANT PROFESSORS

- Jeremy Dawson - Ph.D. (West Virginia University)
  Nanotechnology
- Jignesh Solanki - Ph.D. (Pennsylvania State University)
  Tissue Engineering, Spinal Cord Injury Repair, Stem Cells, Molecular Neurobiology

VISITING AND ADJUNCT PROFESSORS

- Gyungsu Byun - Ph.D. (University of California, Los Angeles)
  Digital Electronic Devices
- Bojan Cukic - Ph.D. (University of Houston)
  Software Engineering, High-Assurance Systems, Computational Intelligence, Fault-Tolerant Systems, Biometrics
- Nancy Lan Guo - Ph.D. (West Virginia University)
  Medical Information Systems
- Lawrence Hornak - Ph.D. (Rutgers University)
  Optics, Integrated Optics, Micro/Nano Structures and Devices, Biosensors, Biometrics
- V. Jagannathan - Ph.D. (Vanderbilt University)
  Distributed Intelligent Systems, Internet and Security Technologies
- Tim Menzies - Ph.D. (University of New South Wales)
  Software Engineering, Data Mining
- Arun Ross - Ph.D. (Michigan State University)
  Statistical Pattern Recognition, Biometrics
- Stephanie Schuckers - Ph.D. (University of Michigan)
  Signal Processing, Biometrics

LECTURERS

- Camille Hayhurst - M.S.C.S. (West Virginia University)
  Programming Languages
- Raymond Morehead - M.S.C.S. (West Virginia University). M.D. (Northwestern University)
  Biomedical Systems, Databases
- Cynthia Tanner - M.S.C.S. (West Virginia University)
  Graduate Coordinator for Software Engineering

PROFESSORS EMERITI
- John Atkins - Ph.D. (University of Pittsburgh)
- Wils Cooley - Ph.D., P.E. (Carnegie Mellon University)
- William Dodrill
- Ron Klein - Ph.D. (University of Illinois)
  power systems, control, maglev technology
- Robert McConnell - Ph.D. (University of Kentucky)

Admission Requirements for All Programs

All Masters and Ph.D. programs require applicants to provide the items below to be considered for admission. Specific programs may have additional requirements. Exception: These requirements do not apply to nontraditional students in the Certificate of Software Engineering program and M.S.S.E. program (see certificate program and M.S.S.E. program for more information):

- A minimum cumulative grade point average of 3.0 or equivalent, based on a 4.0 system.
- Three letters of reference.
- International students must demonstrate proficiency in communicating in English (a minimum TOFEL Score of 550, or iBT Score of 79, or IELTS Score of 6.5). (Students who have completed a recent four-year bachelor's degree in the USA need not submit these scores.)
- All graduate degree programs require the GRE general test, with a suggested score of either the 80th percentile on the quantitative part or 80th percentile total (verbal + quantitative + analytical).
- All graduate degere programs require an appropriate bachelors or master's degree for entry.   Students lacking some foundational courses appropriate to a particular degree program may be assigned some remedial coursework as a condition of admission.
- See: Certificate in Software Engineering; Master of Science in Software Engineering for alternative admission requirements to those programs for working professionals.

Regular, Provisional, and Non-Degree Admission

Students admitted into a program are designated as regular status or provisional. The department also admits students to non-degree status in the College of Engineering and Mineral Resources, but these students are not admitted to any specific program. Regular status is given to students who are qualified for unconditional admission to a specific program. Provisional status is given to students who have deficiencies to make up such as incomplete credentials or other reasons as identified by the graduate coordinator. In all cases, the student's letter of admission will state what must be done to attain regular status.

Provisional students must complete the requirements for transfer to regular status by the end of the semester in which they complete eighteen credit hours. Usually provisional students are not considered for graduate assistantships or tuition waivers.

Non-degree status is granted upon request to students meeting the minimum admission requirements. A non-degree student is one who wishes to take courses without seeking a formal degree. Non-degree students require permission of the instructor to take courses that are restricted to specific majors. There is no guarantee of eventual acceptance into a degree program, and in no case may more than twelve hours be transferred to a degree program.

Non-degree students may not be offered graduate assistantships or tuition waivers

For specific information on the following programs please see the links to the right:

- **Computer Engineering**
- **Computer Science**
- **Electrical Engineering**
- **Software Engineering**

Graduate Certificates

The Lane Department of Computer Science & Electrical Engineering offers four graduate certificates, which are typically completed as part of a graduate degree program but can be completed as a separate credential.   Brief descriptions of the certificate programs are given here. More detailed information on procedures for the certificate programs may be found on the main department web page.

GRADUATE CERTIFICATE IN SOFTWARE ENGINEERING

Details for the Graduate Certificate in Software Engineering are found on the graduate catalog section devoted to the Master of Science in Software Engineering degree program.

GRADUATE CERTIFICATE IN COMPUTER FORENSICS

The Lane Department of Computer Science and Electrical Engineering (LDCSEE) offers a Graduate Certificate in Computer Forensics (CF). By providing systematic graduate courses in this field, our graduates and others should be better prepared to assist business, industry, government, and academia in attaining a new level of protection from cyber-criminals.

The graduate certificate program consists of fifteen credit hours of required courses. Admission to the graduate certificate program in Computer Forensics requires admission to the M.S. Computer Science or M.S. Electrical Engineering (with Computer Engineering major). One wishing to complete only the Certificate must still be admitted to the M.S.C.S. or M.S.E.E. programs.

The purpose of the certificate program is to:

1. Provide further education to computer professionals with technical undergraduate degrees to enable them to track and protect institutional computer and cyber crime. This knowledge in corporate settings should lead to better protection of company computer assets, company intellectual property, and company data and financial assets. These professionals should be able to support law enforcement in detection and prosecution of cyber-crime when needed.
2. Provide further education for those technical individuals who work in law-enforcement. It is expected that these would be highly technical people with bachelor's degrees in either computer science, computer engineering, or software engineering.

Many (if not most) of the students expected will be full time and pursuing a Masters of Science degrees in Computer Science or Computer Engineering. Other students may come from industry and law enforcement. These students will achieve the Certificate as another resume item that will improve employability while supplying a demand for computer people with such backgrounds. Some students may choose to pursue the Certificate with no intent of completing a Masters degree but will have achieved significant competence in this field.

The Certificate requires fifteen credit hours through required core curriculum courses. In addition to the fifteen credit hours upon course completion, the student will be required to complete a capstone project. The following are the fifteen credits hours:

CPE 435	Computer Incident Response	3
CPE 536	Computer Data Forensics	3
CPE 538	Intro Computer Security Management	3
CS 539	Computer Forensics and the Law	3
CS 568	Computer Network Forensics	3

These five courses cover the major areas of study. The first is an overview of the entire area; two will be taught with an emphasis throughout on vulnerabilities and counter-measures. One course emphasizes management practices and oversight required to maintain the best defense against attacks in organizations and how to respond to them. The final course deals with the law and cases governing the area of computer crime, its detection and prosecution, keeping in mind the constraints placed on security by the rights of citizens.

GRADUATE CERTIFICATE IN BIOMETRICS & INFORMATION ASSURANCE

The graduate level Information Assurance and Biometrics Certificate Program at West Virginia University (WVU) provides a student-centered learning environment to educate and train professionals to meet the changing needs of the industry, government, and academia in West Virginia and the nation. This program is offered to WVU students, government personnel (military and civilian), and contractor personnel who meet the program acceptance requirements. Potential career options for students completing this certificate program are in security related fields, most likely in the military, banking industry, or within various law enforcement agencies.

The graduate level Information Assurance and Biometrics Certificate Program offered at WVU provides a broad overview of the information assurance and biometrics field and addresses relative and recent advances and current research issues. It is interdisciplinary in nature and covers many educational materials. Included are the elements of biometrics technology, system security engineering, and principles of trusted systems. The course content of this program emphasizes ethical, economic, social, and legal impacts of biometrics technologies and information assurance techniques.

The goal of the graduate level fifteen Credit Hour Information Assurance and Biometrics Certificate Program is to provide students with the following:

- A solid understanding of biometrics technology, system security principles, and their scientific foundations, and
- An awareness of the social, psychological, ethical, and legal policies and requirements in the field of information assurance and biometrics (IAB), and
- The ability to communicate with professionals in the wide range of public services, including law enforcement, military, science, and those who employ the principles and techniques of IAB.

The coursework includes fifteen credit hours of classes. As part of the certificate coursework, students will be expected to take four required classes and choose the fifth class between two approved electives.

BIOM 426	Biometric Systems	3
CS 465	Introduction to Computer Security	3

STAT 516	Forensic Statistics	3
BIOM 693	Special Topics	3
Select one of the following:		3
CS 665	Computer System Security	
EE 465	Introduction to Digital Image Processing	

A capstone project will be required as part of the Advanced Biometrics course. Advanced Biometrics is a required capstone course taken after BIOM 426, CS 465, and STAT 516. This course includes a once-a-week advanced topics seminar series and a three-hour laboratory. The laboratory will have both formal laboratory exercises and time devoted to the project. The project will provide the students with an opportunity to integrate the knowledge gained from the core courses to the program.

GRADUATE CERTIFICATE IN INTERACTIVE TECHNOLOGIES AND SERIOUS GAMING

 A graduate certificate in Interactive Technologies and Serious Gaming recognizes that interactive computer software such as games are both a programmed artifact and a cultural object, and careers in computer gaming - whether in academia or in industry - require a broad range of skills. The purpose of this porgram is to:

1. Give graduate students the skills required to conduct advanced research in gaming and interactive technologies.
2. Prepare students for careers in the gaming industry.
3. Foster a local gaming and interactive technologies program in West Virginia.

Admissions requirements for this certificate program are the same as the admission requirements for the M.S.C.S. degree program.

The Interactive Technologies and Serious Gaming Certificate Program will normally be completed over two years. Requirements for completion of the degree are eighteen credit hours of coursework and completion of a final project. The eighteen credit hours of coursework will include:

CS 572	Advanced Artificial Intelligence Techniques	3
CS 570	Interactive Computer Graphics	3
CS 593X	Special Topics (Design of Immersive Media)	3
Seminar		3
Electives		6

Prior to completion of the Certificate, students will complete a significant project, suitable for inclusion in their portolio.   The aim of the project is to synthesize and combine the student's prior study into an innovative product.

Computer Engineering

Degree Offered

- Doctor of Philosophy, Computer Engineering (Ph.D.)

Program Description

The Doctor of Philosophy program should be considered by those with superior academic achievement and who desire to pursue a career of research or teaching. Students interested in the Ph.D. program in computer engineering should see our web page at http://www.csee.wvu.edu for information. If additional information is needed, contact the graduate coordinator of electrical and computer engineering.

Program Educational Objectives & Outcomes

The educational objective of the Ph.D. program in Computer Engineering is to produce graduates who have the knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study.

Specific outcomes of the program are:

1. Achieve a depth of knowledge in core computer engineering subjects, as demonstrated by completion of core Ph.D. courses and examination on those subjects through the Qualifying Examination process.
2. Achieve a breadth of advanced knowledge to support research, as demonstrated by completion of doctoral level coursework and graduate seminar participation.
3. Achieve an ability to carry out independent research, as demonstrated by successful completion and defense of a dissertation.

Admissions

As a first step, students must satisfy provisions under the "Admission Requirements for All Programs" of the main catalog entry for the Lane Department of Computer Science and Electrical Engineering and must submit a statement of purpose.

Students who hold a M.S. degree in Electrical Engineering or Computer Engineering (or equivalent degree) will be considered for admission with regular status into the Ph.D. program. Students who hold a Masters degree in the sciences or engineering, excluding M.S.E.E. or M.S.E., will be considered for admission with provisional status and will likely have coursework deficiencies to remove. All other students must apply for admission into a master's program as the first stage in attaining the Ph.D.

REMOVING DEFICIENCIES

Prior to the first week of classes, new Ph.D. students must meet with the graduate coordinator to select classes. This interview determines if the student needs remedial work in order to pursue a graduate degree. Students with deficiencies may be required to take courses as prerequisites for graduate courses. Deficiencies are usually noted as a condition for admission. However, they may also be specified during the interview or later.

During the second semester, students must form their Advisory and Examining Committee (AEC) and write a plan of study. The AEC may also identify additional deficiencies to be removed, but this is rare since deficiencies should have been identified earlier in the student's career.

Curriculum in Doctor of Philosophy –Computer Engineering

A candidate for the Ph.D. degree with a major in computer engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Lane Department of Computer Science and Electrical Engineering.

Program Requirements

The doctor of philosophy degree with a major in computer engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of computer engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Research work for the doctoral dissertation must represent a significant contribution to engineering or computer science. It may entail a fundamental investigation into a specialized area.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required

Course Requirements [*]	
A minimum of six credit hours of 600 or higher level courses	
A maximum of six credit hours may be in directed study (CPE 795)	
Select from the following based on degree path:	18
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799	
Research	24
CPE 797 — Research	
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**42**

[*]   Students who do not hold a baccalaureate degree in computer engineering are required to take a set of undergraduate computer engineering courses above and beyond the minimum coursework requirements.
Doctoral students who do not have an M.S.C.S. or M.S.E.E. degree must either earn this degree, or complete coursework as required for the master's degree with thesis option. It is not necessary to actually write a thesis. A minimum of twenty-four hours of coursework is required. Up to twelve hours may be transferred from work done at another institution.
A minimum of forty-two hours of coursework and thirty hours of independent research beyond a bachelor's degree, or eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the computer engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

The Lane Department of Computer Science and Electrical Engineering is organized in the following five Areas of Concentration. All Ph.D. degree programs use these Areas to provide organizational structure to the educational process as delineated under specific Ph.D. requirements. The significance of these Areas will be of particular importance in preparation for the Qualifying Exam as each area has designated Ph.D. Qualifier Core Courses as follows:

1. Electronics and Photonics Area

EE 550	Advanced Semiconductor Electronics
EE 551	Linear Integrated Circuits
EE 650	Optoeletronics

2. Signals and Systems Area

EE 513	Stochastic Systems Theory
EE 515	Linear Control Systems
EE 533	Computer Applications in Power System Analysis

3. Computer Systems

CPE 670	Switching Circuit Theory 1
CS 550	Theory of Operating Systems

4. Software/Knowledge Engineering

CPE 684	Advanced Real-Time Systems
CS 573	Advanced Data Mining
CS 591Q	Pattern Recognition

5. Theory of Computing

CS 510	Formal Specification of Language
CS 520	Advanced Analysis of Algorithms
CS 525	Computational Complexity

Ph.D. students must make the first attempt to pass the qualifying exam within fourteen months of their enrollment if they already have a M.S. degree from the Lane Department of CSEE or within twenty-six months otherwise. The Ph.D. qualifying process consists of completion of a research project and oral examination. The project is intended to demonstrate the student's ability to assemble and analyze the relevant literature for a given research problem and to make preliminary steps towards his/her own contribution.

The oral exam will include:

1. Presentation by the student of his/her research project
2. Questions about the work, its context, and relevant literature
3. Questions about course work, focusing specifically on the three core courses for which the student has earned credit

The possible outcomes of the first year exam are: "Pass" which means the student is qualified to begin work towards the candidacy exam; "Pass with Recommended Coursework" which means the student is qualified to begin work towards a candidacy exam but certain courses must be taken; or "Fail". Any student failing the qualifying exam on the initial attempt will have one additional attempt within six months. Failure of the exam on the second attempt will disqualify the student from further doctoral studies in the LCSEE program.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

When all requirements are completed, the qualifying and candidacy examinations are passed, and the research proposal is successfully defended, the student is formally admitted to candidacy for the Ph.D. degree. For full-time students, admission to candidacy must normally occur within three years of entering the Ph.D. program.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. All requirements for the degree must be completed within five years after the student has been admitted to candidacy.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows. A typical Ph.D. program requires four to five years beyond the baccalaureate degree, although scholarly achievements are more important than length of program.

First Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
CPE 797	3	CPE 797	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
CPE 797	6	CPE 797	6
Course	3	Course	3
	9		**9**

Third Year

Fall	Hours	Spring	Hours
CPE 797	9	CPE 797	9
	9		**9**

Total credit hours: 54

Computer Science

Degrees Offered

- Master of Science in Computer Science (M.S.C.S)
- Doctor of Philosophy in Computer Science (Ph.D.)

Program Description

The Masters of Science in Computer Science (M.S.C.S.) degree program qualifies a student to assume a professional role in industry or government, teach in a junior or senior college, or undertake advanced training toward a doctorate in computer science. The following sections describe the general procedures to be followed in completing the M.S.C.S. degree. Note that steps are intended to be carried out in a specific order.

Program Educational Objectives & Outcomes

The objective of the Masters of Science in Computer Science (M.S.C.S.) degree program is to produce graduates who have the knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study.

Specific outcomes that will be achieved by graduates of the program are:

- Achieve a depth of proficiency in a specific field of Computer Science by completing major courses in one of three areas: computer systems, software and knowledge engineering, or the theory of computation.
- Achieve a breadth of understanding of Computer Science by completing minor coursework requirements in other areas, and by participation in graduate seminar requirements.
- Demonstrate professionalism and communication skills through completion of coursework, project, or thesis defense.

Admissions

Students who satisfy the departmental graduate admission requirements given on the main departmental section will be considered for admission. Additional criteria may be considered in making a final decision. All applicants must submit three letters of reference and complete an Applicant Information Form.

REMOVING DEFICIENCIES

The minimum background expected of any student entering the M.S.C.S. program is coursework equivalent to the following:

- One year of calculus (MATH 155 and MATH 156).
- One course in probability and statistics (STAT 215).
- Knowledge of introductory programming in a high-level programming language (STAT 215).

Students not meeting these minimum requirements will be required to take the equivalent coursework before applying to the M.S.C.S. program.

Students entering without a four-year Bachelors degree in Computer Science may have additional deficiencies in their coursework which must be addressed before beginning the regular M.S.C.S. program. These students will be initially admitted with provisional status and required to remove these deficiencies during their first eighteen hours of coursework.

Possible deficiency areas for students having a Bachelors degree in other disciplines represent the following core areas required of all undergraduate CS students:

CS 111	Introduction to Data Structures	4
CS 220	Discrete Mathematics	3
CS 221	Analysis of Algorithms	3
CS 230	Introduction to Software Engineering	4
CS 310	Principles of Programming Languages	3
CS 350	Computer System Concepts	3

As demand justifies and resources permit, the department will offer accelerated courses to assist graduate students in satisfying deficiencies.

Curriculum in Masters of Science in Computer Science

A candidate for the M.S. degree in computer science must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Lane Department of Computer Science and Electrical Engineering.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level of above		
CS 796	Graduate Seminar	1
Area of Concentration		
Complete one Area of Concentration as follows:		9
One Core course		
Two Elective courses		
Complete the remaining Areas of Concentration as follows:		6
One Core course		
Elective courses		9
Choose three of the following:		
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799		
Complete 1 of the following options:		7-8
Thesis Option - 7 hours		
CS 796	Graduate Seminar (1 hour)	

CS 697	Research (6 hours)
Written Research Proposal	
Thesis	
Final Oral or Written Examination	
Problem Report Option - 8 hours	
Complete 5 additional hours of coursework	
CS 697	Research (3 hours)
Written Research Proposal	
Formal written report or professional report/paper	
Final Oral or Written Examination	
Coursework Option - 8 hours	
Complete 8 additional hours of coursework	
Final Oral or Written Examination	
Total Hours	**32-33**

* Students who do not hold a baccalaureate degree in computer science are required to take a set of undergraduate computer science courses above and beyond the minimum coursework requirements.

Areas of Concentration

COMPUTER SYSTEMS

Core Courses

CPE 670	Switching Circuit Theory 1
CS 550	Theory of Operating Systems
Elective Courses	
CPE 435	Computer Incident Response
CPE 520	Application of Neural Networks
CPE 521	Applied Fuzzy Logic
CPE 536	Computer Data Forensics
CPE 538	Intro Computer Security Management
CS 533	Developing Portable Software
CS 453	Data and Computer Communications
CS 539	Computer Forensics and the Law
CS 555	Advanced Computer Systems Architecture
CS 556	Distributed and Pervasive Compt
CS 568	Computer Network Forensics
CS 570	Interactive Computer Graphics
CS 578	Medical Image Analysis
or CS 778	Medical Image Analysis

SOFTWARE/KNOWLEDGE ENGINEERING

Core Courses

CPE 684	Advanced Real-Time Systems
CS 573	Advanced Data Mining
CS 677	Pattern Recognition
CS 630	Empirical Methods in Software Engineering and Computer Science
Elective Courses	
BIOM 693	ADTP: Advanced Biometrics
CS 533	Developing Portable Software
CS 558	Multimedia Systems
CS 572	Advanced Artificial Intelligence Techniques
CS 578	Medical Image Analysis
or CS 778	Medical Image Analysis

CS 665	Computer System Security
CS 736	Software Performance Engineering
CS 791H	Approximation Algorithms
CS 757	Distributed Systems and Algorithms
EE 565	Advanced Image Processing
SENG 530	Validation and Verification

THEORY OF COMPUTING

Core Courses

CS 510	Formal Specification of Language
CS 520	Advanced Analysis of Algorithms
CS 525	Computational Complexity

Elective Courses

CS 410	Compiler Construction
CS 420	Design of Algorithms
CS 422	Automata Theory
CS 426	Discrete Mathematics 2
CS 727	Information Dissemination
CS 591A	String Algorithms
CS 591B	Network Optimization
CS 591Q	Pattern Recognition
CS 691H	Fixed Parameter Algorithms
CS 791E	Algorithmic Graph Theory
CS 791G	Randomized Algorithms
CS 791H	Approximation Algorithms

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

All master's students must defend their thesis or problem report at an oral exam, attended by all members of the committee.

A student who fails the research defense may repeat the defense at most once, at a time determined by the AEC but not necessarily during the same semester.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.C.S degree program that completes degree requirements in one and half years is as follows. Those students who lack course prerequisites may require more than three semesters of full-time study to complete the degree. Students with research assistantships may also require more than three semesters to complete the degree.

First Year

Fall	Hours	Spring	Hours
Area of Concentration 1 Core Course	3	Area of Concentration 1 Elective Course	3
Area of Concentration 1 Elective Course	3	Area of Concentration 2 Core Course	3
Elective Course	3	Elective Course	3
CS 796	1	CS 796	1
	10		**10**

Second Year

Fall	Hours
Area of Concentration 3 Core Course	3
Elective Course	3

CS 697	6	
	12	

Total credit hours: 32

Curriculum in Doctor of Philosophy –Computer Science Requirements

A candidate for the Ph.D. degree with a major in computer science must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Lane Department of Computer Science and Electrical Engineering.

Program Requirements

The doctor of philosophy degree with a major in computer science is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of computer science.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Research work for the doctoral dissertation must represent a significant contribution to engineering or computer science. It may entail a fundamental investigation into a specialized area.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required

Course Requirements [*]	
A minimum of six credit hours of 600 or higher level courses	
A maximum of six credit hours may be in directed study (CS 795)	
Research	24
CS 797 Research	
Select from the following based on degree path:	18
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799	
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**42**

[*]   Students who do not hold a baccalaureate degree in computer science are required to take a set of undergraduate computer science courses above and beyond the minimum coursework requirements.
Doctoral students who do not have an M.S.C.S. degree must either earn this degree or complete coursework as required for the M.S.C.S. with thesis option. It is not necessary to actually write a thesis. A minimum of twenty-four hours of coursework is required. Up to twelve hours may be transferred from work done at another institution.
A minimum of forty-two hours of coursework and thirty hours of independent research beyond a bachelor's degree, or eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the computer science field to determine whether or not they have sufficient knowledge to undertake independent research.

The Lane Department of Computer Science and Electrical Engineering is organized in the following five Areas of Concentration. All Ph.D. degree programs use these Areas to provide organizational structure to the educational process as delineated under specific Ph.D. requirements. The significance of these Areas will be of particular importance in preparation for the Qualifying Exam as each area has designated Ph.D. Qualifier Core Courses as follows:

1. Electronics and Photonics Area

EE 550	Advanced Semiconductor Electronics
EE 551	Linear Integrated Circuits
EE 650	Optoeletronics
2. Signals and Systems Area	
EE 513	Stochastic Systems Theory
EE 515	Linear Control Systems
EE 533	Computer Applications in Power System Analysis
3. Computer Systems	
CPE 670	Switching Circuit Theory 1
CS 550	Theory of Operating Systems
4. Software/Knowledge Engineering	
CPE 684	Advanced Real-Time Systems
CS 573	Advanced Data Mining
CS 591Q	Pattern Recognition
5. Theory of Computing	
CS 510	Formal Specification of Language
CS 520	Advanced Analysis of Algorithms
CS 525	Computational Complexity

Ph.D. students must make the first attempt to pass the qualifying exam within fourteen months of their enrollment if they already have a M.S. degree from the Lane Department of CSEE or within twenty-six months otherwise. The Ph.D. qualifying process consists of completion of a research project and oral examination. The project is intended to demonstrate the student's ability to assemble and analyze the relevant literature for a given research problem and to make preliminary steps towards his/her own contribution.

The oral exam will include:

1. Presentation by the student of his/her research project
2. Questions about the work, its context, and relevant literature
3. Questions about course work, focusing specifically on the three core courses for which the student has earned credit

The possible outcomes of the first year exam are: "Pass" which means the student is qualified to begin work towards the candidacy exam; "Pass with Recommended Coursework" which means the student is qualified to begin work towards a candidacy exam but certain courses must be taken; or "Fail". Any student failing the qualifying exam on the initial attempt will have one additional attempt within six months. Failure of the exam on the second attempt will disqualify the student from further doctoral studies in the LCSEE program.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

When all requirements are completed, the qualifying and candidacy examinations are passed, and the research proposal is successfully defended, the student is formally admitted to candidacy for the Ph.D. degree. For full-time students, admission to candidacy must normally occur within three years of entering the Ph.D. program.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. All requirements for the degree must be completed within five years after the student has been admitted to candidacy.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows. A typical Ph.D. program requires four to five years beyond the Baccalaureate degree, although scholarly achievements are more important than length of program

First Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
CS 797	3	CS 797	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
CS 797	6	CS 797	6
Course	3	Course	3
	9		**9**

Third Year

Fall	Hours	Spring	Hours
CS 797	9	CS 797	9
	9		**9**

Total credit hours: 54

Electrical Engineering

Degrees Offered

- Masters of Science, Electrical Engineering (M.S.E.E.)
- Doctor of Philosophy, Electrical Engineering (Ph.D.)

Program Description

The Masters of Science in Electrical Engineering (M.S.E.E.) degree program is intended for students who have an undergraduate degree in Electrical Engineering, Computer Engineering, or a closely related discipline, and wish to broaden their depth of understanding in one or more areas of the field. Program graduates will be qualified to pursue careers in industry, government, or further academic study. The Doctor of Philosophy program should be considered by those with superior academic achievement and who desire to pursue a career of research or teaching.

Masters Program Educational Objectives & Outcomes

The objective of the Master of Science in Electrical Engineering (M.S.E.E.) degree program is to produce graduates who have the knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study.

Specific outcomes that will be achieved by graduates of the program are:

1. Achieve a depth of proficiency in a specific field of Electrical Engineering by completing major courses in one of four areas: electronics and photononics; systems and signals; computer systems; or software and knowledge engineering.
2. Achieve a breadth of understanding of Electrical Engineering by completing minor coursework requirements in another area, and by participation in graduate seminar requirements.
3. Demonstrate professionalism and communication skills through completion of coursework, project or thesis defense.

Doctorial Program Educational Objectives & Outcomes

The objective of the Ph.D. Program in Electrical Engineering degree program is to produce graduates who have the knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, government service, or in further graduate or professional study.

Specific outcomes that will be achieved by graduates of the program are:

1. Achieve a depth of understanding in Electrical Engineering, as demonstrated by completion of core Ph.D. courses and examination on that material through the Qualifying Examination process.
2. Achieve a breadth of understanding of the Electrical Engineering discipline, as demonstrated by completion of remaining doctoral coursework and participation in graduate seminar.
3. Demonstrate the ability to conduct independent research by completion and defense of a dissertation.

Masters Admissions

Students admitted into a program are designated as regular, provisional, or non-degree status. Regular status is given to students who are granted unconditional admissions. Provisional status is given to students who have deficiencies to make up such as incomplete credentials or other reasons as identified by the graduate coordinator. In all cases, the student's letter of admission will state what must be done to attain regular status, and students must sign and date this letter no later than the first registration. Non-degree status is granted case-by-case by the graduate coordinator. Basically, a non-degree student is one who may take courses but sometimes with no plan of study or any guarantee for attaining provisional status.

Doctorial Admissions

As a first step, students must satisfy provisions under the "Admission Requirements for All Programs" and must submit a statement of purpose. Students who hold an M.S.E.E. or M.S.E. (or equivalent) degree will be considered for admission with regular status into the Ph.D. program. Students who hold a master's degree in the sciences or engineering, excluding M.S.E.E. or M.S.E., will be considered for admission with provisional status and will likely have coursework deficiencies to remove. All other students must apply for admission into a master's program as the first stage in attaining the Ph.D.

REMOVING DEFICIENCIES

Prior to the first week of classes, new Ph.D. students must meet with the graduate coordinator to select classes. This interview determines if the student needs remedial work in order to pursue a graduate degree. Students with deficiencies may be required to take courses as prerequisites for graduate courses. Deficiencies are usually noted as a condition for admission. However, they may also be specified during the interview or later.

During the second semester, students must form their Advisory and Examining Committee (AEC) and write a plan of study. The AEC may also identify additional deficiencies to be removed, but this is rare since deficiencies should have been identified earlier in the student's career.

Curriculum in Master of Science in Electrical Engineering Masters

A candidate for the M.S. degree in electrical engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Lane Department of Computer Science and Electrical Engineering.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level or above		
EE 796	Graduate Seminar	1
Area of Concentration		
Complete one Area of Concentration as follows: [**]		9
One Core course		
Two Elective courses		
Complete two additional Areas of Concentration as follows:		6
One Core Course		
Elective courses		9
Choose three of the following:		
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799		
Complete 1 of the following options:		7-8
Thesis Option - 7 hours		
EE 796	Graduate Seminar (1 hour)	
EE 697	Research (6 hours)	
Written Research Proposal		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 8 hours		
Complete 5 additional hours of coursework		

EE 697	Research (3 hours)	
Written Research Proposal		
Formal written report or professional report/paper		
Final Oral or Written Examination		
Coursework Option - 8 hours ***		
Complete 8 additional hours of coursework		
Final Oral or Written Examination		
Total Hours		**32-33**

*   Students who do not hold a baccalaureate degree in electrical engineering are required to take a set of undergraduate electrical engineering courses above and beyond the minimum coursework requirements.

**   The Theory of Computing Area of Concentration may not be used to fulfill this requirement.

***   This option is open only to professionals employed full-time in local industry.

Areas of Concentration

ELECTRONIC AND PHOTONICS

Core Courses

EE 550	Advanced Semiconductor Electronics	3
EE 551	Linear Integrated Circuits	3
Elective Courses		
EE 435	Introduction to Power Electronics	3
EE 437	Fiber Optics Communications	3
EE 455	Introduction to Microfabrication	3
EE 457	Fundamentals of Photonics	1-6
or EE 591	Advanced Topics	
EE 528	Biomedial Microdevices	3
EE 591L	Advanced Topics	1-6
EE 650	Optoeletronics	3
EE 694		
PHYS 771	Introduction to Solid State Physics	3
PHYS 772	Semiconductor Physics	3
PHYS 773	Collective Phenomena in Solids	3
CHE 466	Electronic Materials Processing	3
BIOL 493	Special Topics	1-6
or BIOL 593	Special Topics	

SIGNALS AND SYSTEMS

Core Courses

EE 513	Stochastic Systems Theory	3
EE 515	Linear Control Systems	3
Elective Courses		
EE 461	Introduction to Communications Systems	3
EE 465	Introduction to Digital Image Processing	3
EE 517	Optimal Control	3
EE 519	Digital Control	3
EE 531	Advanced Electrical Machinery	3
EE 533	Computer Applications in Power System Analysis	3
EE 535	Power System Control and Stability	3
EE 561	Communication Theory	3
EE 562	Wireless Communication System	3
EE 565	Advanced Image Processing	3
EE 567	Coding Theory	3

EE 568	Information Theory	3
EE 569	Digital Video Processing	3
EE 613	Detection and Estimation Theory	3
EE 625	Advanced Signal Processing	3
EE 713	Large-Scale System Modeling	3
EE 731	Real Time Control of Power System	3
EE 733	Protection of Power Systems	3

COMPUTER SYSTEMS

Core Courses

CPE 670	Switching Circuit Theory 1	3
CS 550	Theory of Operating Systems	3

Elective Courses

CPE 435	Computer Incident Response	3
CPE 520	Application of Neural Networks	3
CPE 521	Applied Fuzzy Logic	3
CPE 536	Computer Data Forensics	3
CPE 538	Intro Computer Security Management	3
CS 533	Developing Portable Software	3
CS 453	Data and Computer Communications	3
CS 539	Computer Forensics and the Law	3
CS 555	Advanced Computer Systems Architecture	3
CS 556	Distributed and Pervasive Compt	3
CS 568	Computer Network Forensics	3
CS 570	Interactive Computer Graphics	3
CS 578	Medical Image Analysis	3
or CS 778	Medical Image Analysis	
EE 591V	Advanced Topics	1-6

SOFTWARE/KNOWLEDGE ENGINEERING

Core Courses

CPE 684	Advanced Real-Time Systems	3
CS 573	Advanced Data Mining	3
CS 677	Pattern Recognition	3
CS 630	Empirical Methods in Software Engineering and Computer Science	3

Elective Courses

BIOM 693	Special Topics	1-6
CS 533	Developing Portable Software	3
CS 558	Multimedia Systems	3
CS 572	Advanced Artificial Intelligence Techniques	3
CS 578	Medical Image Analysis	3
or CS 778	Medical Image Analysis	
CS 665	Computer System Security	3
CS 736	Software Performance Engineering	3
CS 791X	Advanced Topics	1-6
CS 757	Distributed Systems and Algorithms	3
CS 691X	Advanced Topics	1-6
EE 565	Advanced Image Processing	3
SENG 550	Object Oriented Design	3

THEORY OF COMPUTING

Core Courses

CS 510	Formal Specification of Language	3
CS 520	Advanced Analysis of Algorithms	3
CS 525	Computational Complexity	3
Elective Courses		
CS 410	Compiler Construction	3
CS 420	Design of Algorithms	3
CS 422	Automata Theory	3
CS 426	Discrete Mathematics 2	3
CS 512		
CS 522		
CS 722		
CS 725		
CS 727	Information Dissemination	3
CS 791X	Advanced Topics	1-6
CS 591B	Advanced Topics	1-6
CS 791E	Advanced Topics	1-6
CS 591Q	Advanced Topics	1-6

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

All master's students must defend their thesis or problem report at an oral exam, attended by all members of the committee.

A student who fails the research defense may repeat the defense at most once, at a time determined by the AEC but not necessarily during the same semester.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.E.E degree program that completes degree requirements in one and half years is as follows. Those students who lack course prerequisites may require more than three semesters of full-time study to complete the degree. Students with research assistantships may also require more than three semesters to complete the degree.

First Year

Fall	Hours	Spring	Hours
Field of Study 1 Core Course	3	Field of Study 1 Elective Course	3
Field of Study 1 Elective Course	3	Field of Study 2 Core Course	3
Elective Course	3	Elective Course	3
EE 796	1	EE 796	1
	10		**10**

Second Year

Fall	Hours
Field of Study 3 Core Course	3
Elective Course	3
EE 697	6
	12

Total credit hours: 32

Curriculum in Doctor of Philosophy – Electrical Engineering Requirements

A candidate for the Ph.D. degree with a major in electrical engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Lane Department of Computer Science and Electrical Engineering.

Program Requirements

The doctor of philosophy degree with a major in electrical engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of electrical engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Research work for the doctoral dissertation must represent a significant contribution to engineering or computer science. It may entail a fundamental investigation into a specialized area. A minimum of twenty-four credit hours of research (EE 797 (http://catalog.wvu.edu/graduate/collegeofengineeringandmineralresources/thelanedepartmentofcomputerscienceandelectricalengineering/computer_engineering)) is required.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required

Course Requirements [*]		
A minimum of six credit hours of 600 or higher level courses		
A maximum of six credit hours may be in directed study (EE 795)		
Research		24
EE 797	Research	
Select from the following based on degree path:		18
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799		
Examinations		
Qualifying Exam		
Candidacy Exam		
Final Exam		
Total Hours		**42**

[*] Students who do not hold a baccalaureate degree in electrical engineering are required to take a set of undergraduate electrical engineering courses above and beyond the minimum coursework requirements.

Doctoral students who do not have an M.S.E.E. degree must either earn this degree, or complete coursework as required for the Master's degree with thesis option. It is not necessary to actually write a thesis. A minimum of twenty-four hours of coursework is required. Up to twelve hours may be transferred from work done at another institution.

A minimum of forty-two hours of coursework and thirty hours of independent research beyond a bachelor's degree, or eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

Examinations
QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the electrical engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

The Lane Department of Computer Science and Electrical Engineering is organized in the following five Areas of Concentration. All Ph.D. degree programs use these Areas to provide organizational structure to the educational process as delineated under specific Ph.D. requirements. The significance of these Areas will be of particular importance in preparation for the Qualifying Exam as each area has designated Ph.D. Qualifier Core Courses as follows:

1. Electronics and Photonics Area	
EE 550	Advanced Semiconductor Electronics
EE 551	Linear Integrated Circuits
EE 650	Optoeletronics
2. Signals and Systems Area	
EE 513	Stochastic Systems Theory
EE 515	Linear Control Systems
EE 533	Computer Applications in Power System Analysis

3. Computer Systems

CPE 670	Switching Circuit Theory 1
CS 550	Theory of Operating Systems

4. Software/Knolwedge Engineering

CPE 684	Advanced Real-Time Systems
CS 573	Advanced Data Mining
CS 591Q	Pattern Recognition

5. Theory of Computing

CS 510	Formal Specification of Language
CS 520	Advanced Analysis of Algorithms
CS 525	Computational Complexity

Ph.D. students must make the first attempt to pass the qualifying exam within fourteen months of their enrollment if they already have a M.S. degree from the Lane Department of CSEE or within twenty-six months otherwise. The Ph.D. qualifying process consists of completion of a research project and oral examination. The project is intended to demonstrate the student's ability to assemble and analyze the relevant literature for a given research problem and to make preliminary steps towards his/her own contribution.

The oral exam will include:

1. Presentation by the student of his/her research project
2. Questions about the work, its context, and relevant literature
3. Questions about course work, focusing specifically on the three core courses for which the student has earned credit

The possible outcomes of the first year exam are: "Pass" which means the student is qualified to begin work towards the candidacy exam; "Pass with Recommended Coursework" which means the student is qualified to begin work towards a candidacy exam but certain courses must be taken; or "Fail". Any student failing the qualifying exam on the initial attempt will have one additional attempt within six months. Failure of the exam on the second attempt will disqualify the student from further doctoral studies in the LCSEE program.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

When all requirements are completed, the qualifying and candidacy examinations are passed, and the research proposal is successfully defended, the student is formally admitted to candidacy for the Ph.D. degree. For full-time students, admission to candidacy must occur within three years of entering the Ph.D. program.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. All requirements for the degree must be completed within five years after the student has been admitted to candidacy.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows. A typical Ph.D. program requires four to five years beyond the baccalaureate degree, although scholarly achievements are more important than length of program.

First Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
EE 797	3	EE 797	3
	9		**9**

Second Year

Fall	Hours Spring	Hours
EE 797	9 EE 797	9
	9	**9**

Third Year

Fall	Hours Spring	Hours
Course	3 Course	3
EE 797	6 EE 797	6
	9	**9**

Total credit hours: 54

Software Engineering

Degrees Offered

- Masters of Science, Software Engineering (M.S.S.E)

Program Description

The Lane Department of Computer Science and Electrical Engineering offers professionally oriented Masters of Science in Software Engineering (M.S.S.E) degree program, as well as a graduate Certificate in Software Engineering. The M.S.S.E. provides graduate educational opportunities to working professionals. The M.S.S.E. degree is a unique extended learning program which provides graduate level software engineering expertise to individuals who are currently working in the computer and information technology industry. The program aspires to serve both adult learners from the local computer and information technology industry and extended learning students taking the course from remote locations. The typical M.S.S.E. student is a full time information technology professional who wishes to augment his work experience with additional academic background.

Program Educational Objectives & Outcomes

The objective of the program is to produce graduates who have the knowledge, skills, and attitudes that will ensure success in professional positions in business, industry, research, or governmental service.

More specifically, after completing five core courses, students will achieve the following outcomes:

- Achieve proficiency in the area of Software Project Management.
- Achieve proficiency in Software Analysis and Design.
- Understand the process of software Validation and Verification.
- Understand the process of Software Evolution.
- Achieve proficiency in Object-Oriented Design of software.

Students will complete their degree requirements with five elective courses which will deepen their understanding of aspects of software engineering relevant to their careers.

Admissions

Students seeking admission to the M.S.S.E. program must fall into one of two categories to be considered for admission. The categories are:

TRADITIONAL STUDENTS WITH RELATED UNDERGRADUATE DEGREE

Students who have recently completed a Bachelor's degree in Computer Science, Computer Engineering, Software Engineering, or a closely related field will be considered for admission with regular status if they satisfy the following requirements:

- Cumulative GPA of 3.0 (on a 4-point scale) or better within the major. Official transcripts showing completion of the Bachelor's degree must be provided in all cases.
- Submission of satisfactory scores in quantitative reasoning for the GRE General Test or Revised General Test. Official scores must be submitted prior to acceptance.

NONTRADITIONAL STUDENTS

Students who do not meet the above requirements but have work experience related to software development will be considered for admission if they meet the following requirements:

- Hold a four-year Bachelor's degree in any field from an accredited University, with a GPA of at least 2.75. Official transcripts showing degree completion must be provided in all cases.

- Submit a resume documenting at least one year of software development experience.
- The GRE is not required for this option.

Nontraditional students are initially admitted as Provisional students. Students desiring to initially earn the Certificate in Software Engineering are initially admitted as non-degree students. They may enroll in core courses in the M.S.S.E. program, and must earn a grade of at least B in each of the first four courses. Upon meeting this requirement, these students may apply for transfer to the regular M.S.S.E. program. At the time of transfer, they must meet the following additional requirements:

- Submit a resume documenting at least three years of software development experience.
- Submit three letters of reference from persons familiar with the student's professional work.

Curriculum in Master of Science in Software Engineering

A candidate for the M.S. degree in software engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Lane Department of Computer Science and Electrical Engineering.

Program Requirements

All M.S. degree candidates are required to perform research (thesis or problem report option) and follow a planned program of study. The student's faculty advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the student with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements *		
A minimum of 60% of courses must be from 500 level or above		
SENG 510	Software Project Management	3
SENG 520	Software Analysis and Design	3
SENG 530	Validation and Verification	3
SENG 540	Software Evolution	3
SENG 550	Object Oriented Design	3
Advanced Elective Course		9
Select from the following:		
Any SENG Courses 400-799		
CPE 538	Intro Computer Security Management	
Complete 1 of the following options:		6-9
Thesis Option - 6 hours		
SENG 697	Research (6 hours)	
Written Research Proposal		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 9 hours		
Complete 6 additional hours of coursework		
SENG 697	Research (3 hours)	
Written Research Proposal		
Formal written report or professional report/paper		
Final Oral or Written Examination		
Coursework Option - 9 hours		
Complete 9 additional hours of coursework		
Total Hours		**30-33**

*   Students who do not hold a baccalaureate degree in software engineering, computer science, or computer engineering may be required to take a set of undergraduate courses above and beyond the minimum coursework requirements.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, except for the coursework option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Coursework Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.S.E degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SENG 520	3	SENG 510	3	SENG 540	3
SENG 550	3	SENG 530	3	Adv. Elective Course	3
	6		**6**		**6**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
Adv Elective Course	3	Adv Elective Course	3	Adv Elective Course	3
Adv Elective Course	3	Adv Elective Course	3		
	6		**6**		**3**

Total credit hours: 33

Certificate in Software Engineering

The certificate in software engineering program provides further education to individuals who are currently working in the computer and information technology industry. This program is offered online at evening times convenient for the working professional.

Students may apply for admission as non-degree students to complete the certificate requirements. These students may then optionally apply for transfer to the M.S.S.E. program. In addition, students already admitted to the M.S.S.E. may elect to receive the certificate after completing the necessary requirements.

ADMISSION REQUIREMENTS

Applicants for the certificate in software engineering must meet the following requirements:

- Hold a bachelor's degree in any field from an accredited University.
- Submit a resume documenting at least one year of software development experience.
- By the semester in which the certificate is to be awarded, students must meet the following additional requirements:
    a. Submit a resume documenting at least **three** years of software development experience.
    b. Submit three letters of reference from persons familiar with the student's professional work.

Students working toward the certificate in software engineering are not degree candidates and are admitted as non-degree students. However, they may apply for admission to the M.S.S.E. program (see below) after satisfactory completion of most of the certificate requirements.

Students initially admitted to the M.S.S.E. program may elect to receive the certificate after satisfactory completion of the five core courses and the certificate paper (see below). In this case the resume and letters of reference are not required.

PROGRAM REQUIREMENTS

The certificate program consists of completing five approved courses and a certificate term paper. Students who achieve a B or higher in each of the first four courses of the certificate program may qualify to enter the M.S.S.E. program, as described below. Courses taken for the certificate program earn credit towards the master's degree.

Department of Industrial and Management Systems Engineering

Degrees Offered

- Masters of Science, Industrial Engineering (M.S.I.E.)
- Masters of Science, Industrial Hygiene (M.S.)

- Masters of Science, Safety Management (M.S.)
- Doctor of Philosophy, Industrial Engineering (Ph.D.)
- Doctor of Philosophy, Occupational Safety and Health (Ph.D.)

One of the defining attributes in the success of the department is the dedication and talent of its fifteen faculty and three staff members. The aggregate careers of our faculty and staff represent over 300 years of service to students at WVU. In these 300 years of service is embodied the wisdom and experience to successfully prepare industrial engineers and occupational health and safety professionals for the 21st century. The faculty and staff typically educate nearly 300 undergraduate, 100 to 120 M.S., and fifteen to twenty-five Ph.D. students. The department is in the unique position in the United States of having two complimentary graduate programs in industrial hygiene and safety accredited by the Applied Science Accreditation Commission (ASAC) of ABET. The combined resources and faculty talents of these two programs create synergies that provide our students with outstanding academic and research experiences in the field of occupational safety and health. Excellent academic and research opportunities are also available for students in the areas of operations research, decision sciences, manufacturing, and ergonomics.

Faculty Research

The department has quality research laboratories in manufacturing, robotics and vision systems, CAD/CAM, operations research, production planning and control, decision sciences, ergonomics, industrial hygiene, and safety. Graduate students are encouraged to utilize these resources to explore and develop their capabilities. Research initiatives and on-going funding opportunities are available to students in the areas of: ergonomics, operations research, production planning and control, decision sciences, manufacturing, occupational safety and health, artificial intelligence, and respirator research.

Required Courses

Required courses are determined by the student's degree program and area of emphasis. Specific course information by program area is available at the following website: http://www.imse.cemr.wvu.edu/courses/.

FACULTY

CHAIR

- Kenneth R. Currie - Ph.D. P.E., (West Virginia University)
  Manufacturing systems design, Optimization, Automation & Controls, Healthcare Systems Engineering

PROFESSORS

- Rashpal Ahluwalia - Ph.D., P.E. (Western Ontario University)
  Manufacturing Systems, Quality and Reliability Engineering, Robotics and Automation
- Jack Byrd Jr. - Ph.D., P.E. (West Virginia University)
  Operations Research, Workforce Development, Work Design, Integrated Product Development
- Bhaskaran Gopalakrishnan - Ph.D., P.E., CEM. (Virginia Polytechnic Institute and State University)
  Manufacturing Processes and Production Systems, Artificial Intelligence Applications, Expert Systems Development, Industrial Energy Efficiency, Building's Energy Efficiency, Industrial Energy and Waste Minimization, Productivity Improvement
- Steven Guffey - Ph.D., C.I.H. (North Carolina State University)
  Ventilation Systems Theory and Design, Noise Measurement and Control, Exposure Assessment
- Majid Jaridi - Ph.D. (University of Michigan)
  Statistics, Quality Control, Forecasting and Transportation Research
- Warren Myers - Ph.D., C.I.H. (West Virginia University)
  Associate Dean for Academic Affairs, Industrial Hygiene and Safety, Worker Exposure Assessment and Modeling, Aerosol Filtration, Occupational Respiratory Protection Design and Testing
- Gary Winn - Ph.D. (Ohio State University)
  Construction Safety, Transportation Safety and Program Evaluation, Total Quality Management, Theory of Paradigm Shifts

ASSOCIATE PROFESSORS

- Alan McKendall, Jr. - Ph.D. (University of Missouri, Columbia)
  Operations Research, Meta-heuristics, Facilities Layout and Materials Handling, Project Scheduling, Integrated Production Systems
- Feng Yang - Ph.D. (Northwestern University)
  Simulation, Applied Statistics, Stochastic Processes

ASSISTANT PROFESSORS

- Xinjian "Kevin" He - Ph.D., (University of Cincinnati)
  Respiratory protection, air purification and filtration, aerosol measurement, characterization of particles in indoor and outdoor air, occupational exposure assessment

- Ashish Nimbarte - Ph.D. (Louisiana State University)
Work Related Musculoskeletal Disorders, Occupational Biomechanics and Biomechanical Modeling
- Xiaopeng Ning - Ph.D. (Iowa State University)
Safety Engineering, Biomechanics, Ergonomics, Human Factors Engineering
- Thorsten Wuest - Ph.D. (University of Bremen)
Smart Manufacturing, Machine Learning/Artificial Intelligence, Conceptual Design, Process and Information/Data Management

PROFESSORS EMERITI

- Robert C. Creese - Ph.D., P.E. (Pennsylvania State University)
Manufacturing processes/systems, Foundry engineering, Cost engineering, Engineering economics
- Daniel E. Della-Giustina - Ph.D. (Michigan State University)
Playground and recreation safety, Sport safety, Highway and traffic management, Safety, fire, and emergency response
- Wafik H. Iskander - Ph.D., P.E. (Texas Tech University)
Operations research and optimization, Simulation modeling and analysis, Production planning and control, Applied statistics, Energy effeciency
- Ralph Plummer - Ph.D., P.E. (West Virginia University)
Systems Safety Engineering, Energy Conservation, Human Factors, Ergonomics

ASSOCIATE PROFESSOR EMERITUS

- Andrew J. Sorine - Ed.D. (West Virginia University)
Benchmarking, Safety and Health Programs, Safety Management Information Systems

VISITING AND ADJUNCT PROFESSORS

- Christopher Coffey - Ph.D. (West Virginia University)
Occupational Safety and Health, Assessment, Evaluation of Respiratory Protective Equipment
- John R. Etherton - Ph.D. (West Virginia University)
Safety Engineering, Human Factors
- Martin Harper - Ph.D. (London School of Hygiene and Tropical Medicine)
Industrial Hygiene, Exposure Assessment
- James R. Harris - Ph.D., P.E. (West Virginia University)
Safety Research, Human Factors
- Hongwei Hsiao - Ph.D. (University of Michigan)
Safety Engineering, Human Factors
- Kevin Michael - Ph.D. (Pennsylvania State University)
Acoustics, Hearing Protection, Industrial Hygiene
- Christopher Pan - Ph.D. (University of Cincinnati)
Industrial Hygiene, Exposure Assessment
- Ju-Hyeong Park - Sc.D. M.P.H., C.I.H. (Harvard University)
Industrial Hygiene, Exposure Assessment
- Ziqing Zhuang - Ph.D. (West Virginia University)
Exposure Assessment, Assessment and Evaluation of Respiratory Protective Equipment

Admission

To qualify as a regular graduate student, applicants must have as a minimum the equivalent of a 3.0 GPA. Applicants with a minimum 2.75 GPA (or the equivalent) may be admitted on a provisional basis. Applicants with GPA below 2.75 would need approval of the dean or his designee. International students must demonstrate proficiency in communicating in English (a minimum TOFEL Score of 550, or IBT Score of 79, or IELTS Score of 6.5). Students must comply with the rules and regulations as outlined in this catalog for graduate work in the College of Engineering and Mineral Resources and meet individual major and degree admission standards.

Applicants to graduate programs in the IMSE department are required to provide the following.

- A completed application submitted to the WVU Admissions Office
- Official transcripts of all previous college course work
- TOEFL scores for international students as stated above
- GRE General Test scores (not required for the M.S. in Safety Management Program)
- Three letters of recommendation (required for the Ph.D. programs only).

For specific information on the following programs please see the links to the right:

- **Industrial Hygiene**

- **Industrial Engineering**
- **Occupational Safety and Health**
- **Safety Management**

Industrial Hygiene

Degree Offered:

- Masters of Science, Industrial Hygiene (M.S.)

PROGRAM EDUCATIONAL OBJECTIVES

Drawing from the university's mission, the program mission, the needs of our constituents, and the Applied Science Accreditation Commission Criteria of ABET, the following educational objectives were developed for the Masters of Science program in Industrial Hygiene:

1. Practice Industrial Hygiene and to initiate and develop leadership roles in business, industry, and/or government.
2. Continue professional development and life-long learning.
3. Interact in society and business in a professional, ethical manner to promote occupational and environmental health.
4. Be proficient in written and oral communication and to utilize people-oriented skills in individual and team environments.
5. Apply the skills from Industrial Hygiene to be proficient in his or her chosen field or doctoral studies.

STUDENT OUTCOMES

In order to meet the Program Educational Objectives of the Industrial Hygiene program, students must be able to meet the following educational outcomes at the time of their graduation:

1. An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice such as:
   - Principles and methods of industrial hygiene
   - Principles and methods of ergonomics
   - Principles and methods of safety
   - Principles of environmental sciences
   - Principles of epidemiology and biostatistics
   - Principles and methods of control of physical and chemical hazards
2. The ability to apply knowledge of math, science, and Industrial Hygiene;
3. The ability to design and conduct experiments, analyze and interpret data, develop implementation strategies, and shape recommendations so that results will be achieved and findings will be communicated effectively;
4. The ability to work individually, in teams, and/or in multi-disciplinary teams to identify, formulate, and solve problems using Industrial Hygiene, safety, and ergonomics knowledge, skills, and tools;
5. An ability to formulate or design a system, process, or program to meet desired needs;
6. An understanding of professional and ethical responsibility and the broad education and a knowledge of contemporary issues necessary to understand the impact of solutions in a global and societal context; and
7. A recognition of the need for and an ability to engage in life-long learning.

For admission into the M.S. Industrial Hygiene Program, applicants must meet department admission standards and ABET/ASAC prerequisite course requirements which are currently a minimum of sixty-three credit hours of approved science, mathematics, and other technical courses. Of these, at least fifteen credit hours must be junior or senior level. Specific pre/corequisite course requirements include two semesters of general/inorganic chemistry and two semesters of physics. On an individual basis, the faculty may identify additional pre/corequisite coursework, often including organic chemistry and biology. Applicants will be advised about their specific requirements at the time of admission. Applicants not meeting all of the listed requirements may be considered for admission as provisional students.

Curriculum in Masters of Science – Industrial Hygiene

A candidate for the M.S. degree with a major in industrial hygiene must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Industrial and Management Systems Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

A minimum of 60% of courses must be from 500 level or above

Course Requirements *		
STAT 511	Statistical Methods 1	3
IH&S 528	Industrial Ventilation Design	3
IENG 561	Industrial Hygiene Engineering	3-4
or OEHS 620	Occupational and Environmental Hazard Assessment	
IH&S 725	Industrial Hygiene Sampling and Analysis	4
IENG 460	Human Factors System Design	3
IH&S 527	Noise Measurement and Control	3
IENG 564	Industrial Ergonomics	3
IENG 660	Human Factors System Design	3
or IENG 564	Industrial Ergonomics	
IENG 662	Systems Safety Engineering	3
OEHS 622	Public Health Toxicology	3
OEHS 601	Environmental Health	3
EPID 601	Public Health Epidemiology	3
OEHS 655		2
Enviornmental Elective		3
Safety and Health Elective		3
Online short course : Basic Course in the Protection of Human Research Subjects - Biomedical Focus https://www.citiprogram.org/default.asp		
Complete 1 of the following options:		3-6
Thesis Option - 6 hours		
IH&S 697	Research (6 hours)	
Written Proposal/Oral Presentation		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 3 hours		
IH&S 697	Research (3 hours)	
Written Proposal/Oral Presentation		
Formal written report or professional report/paper		
Final oral or written examination		
Total Hours		**48-52**

* Students who do not hold a baccalaureate degree in industrial hygiene may be required to take a set of undergraduate courses above and beyond the minimum coursework requirements. Students must those courses and make at least a "C" in each before completing the 18th credit hour in the industrial hygiene curriculum.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.I.H. degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
STAT 511	3	IH&S 725	4	OEHS 665	2
IH&S 528	3	IH&S 527	3	Online Short Course	

IENG 561	3	IENG 660	3	
Safety and Health Elective	3			
	12		**10**	**2**
Second Year				
Fall	**Hours**	**Spring**	**Hours**	
IENG 460	3	IENG 564	3	
OEHS 601	3	IENG 662	3	
Enviornmental Elective	3	OEHS 622	3	
IH&S 697	6	EPID 601	3	
	15		**12**	

Total credit hours: 51

Industrial Engineering

Degrees Offered:

- Masters of Science, Industrial Engineering (M.S.I.E.)
- Doctor of Philosophy, Industrial Engineering (Ph.D.)

MASTERS OF SCIENCE IN INDUSTRIAL ENGINEERING

A graduate of this master's program will be prepared to accomplish the following:

1. Practice industrial engineering and to initiate and develop leadership roles in business, industry and/or government
2. Continue professional development and life-long learning
3. Interact in society and business in a professional and ethical manner
4. Be proficient in written and oral communication and to utilize people-oriented skills in individual and team environments
5. Apply the skills from industrial engineering to be proficient in his/her chosen field or further advanced studies

In order to meet the educational objectives, students of this master's program must be able to meet the following educational outcomes at the time of their graduation. Students will have acquired:

1. The ability to use and master modern and classical industrial engineering methodologies in their area of concentration
2. The ability to apply knowledge of math, science, and engineering
3. The ability to do research, and to design and conduct experiments, analyze and interpret data, develop implementation strategies, and shape recommendations so that results will be achieved and findings will be communicated effectively
4. The ability to work individually, on teams, and/or on multi-disciplinary teams to identify, formulate, and solve problems using industrial engineering knowledge, skills, and tools
5. The ability to design and implement or improve integrated systems that include people, materials, information, equipment, and energy using appropriate analytical, computational, and experimental practices
6. An understanding of professional and ethical responsibility and the broad education and knowledge of contemporary issues necessary to understand the impact of solutions in a global and societal context
7. A recognition of the need for and an ability to engage in life-long learning
8. The professional characteristics expected of a successful industrial engineer

DOCTOR OF PHILOSOPHY WITH A MAJOR IN INDUSTRIAL ENGINEERING

A graduate of the Industrial Engineering doctoral program will be prepared to:

1. Practice/teach Industrial Engineering and to initiate and develop leadership roles in education, business, industry and/or government.
2. Continue professional development and life-long learning.
3. Interact in society and business in a professional and ethical manner.
4. Be proficient in written and oral communication and to utilize people-oriented skills in individual and team environments.
5. Apply the skills from Industrial Engineering to be proficient in his/her chosen field.

In order to meet the educational objectives, students of the Industrial Engineering Doctoral program must be able to meet the following educational outcomes at the time of their graduation. Students will have acquired:

1. The ability to use, master, and teach modern and classical Industrial Engineering methodologies in their area of concentration.
2. The ability to apply knowledge of math, science, and engineering.
3. The ability to do research, and to design and conduct experiments, analyze and interpret data, develop implementation strategies, and shape recommendations so that results will be achieved and findings will be communicated effectively.
4. The ability to work individually, on teams, and/or on multi-disciplinary teams to identify, formulate, and solve problems using industrial engineering knowledge, skills, and tools.
5. The ability to design and implement or improve integrated systems that include people, materials, information, equipment, and energy using appropriate analytical, computational, and experimental practices.
6. A thorough understanding of professional and ethical responsibility and the broad education and knowledge of contemporary issues necessary to fully evaluate the impact of solutions in a global and societal context.
7. A recognition of the need for and an ability to engage in life-long learning.
8. The professional characteristics expected of a successful Industrial Engineer.

For admission into the M.S. Industrial Engineering programs, applicants must meet department admission standards and have a bachelor of science degree from an engineering department, or from physics, chemistry, computer sciences, mathematics, or a similar technical or science program. In general, a degree in one of the "hard" science programs is required with at least two years of calculus or equivalent mathematics.

For admission into the Ph.D. program, applicants should have, at a minimum, a 3.4 GPA (or equivalent) in their graduate work. They must also meet all the entrance requirements stated above for the Master's programs. Typically, a Master's degree is required for admission into the Ph.D. program.

Curriculum in Masters of Science in Industrial Engineering

A candidate for the M.S. degree in industrial engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Industrial and Management Systems Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements *	
A minimum of 60% of courses must be from 500 level or above	
Select from the following based on degree path	24
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799	
Complete 1 of the following options:	6-11
Thesis Option - 6 hours	
IENG 697 Research (6 hours)	
Written Proposal	
Thesis	
Final Oral or Written Examination	
Problem Report Option - 11 hours	
Complete 8 additional hours of coursework	
Written Proposal	
Formal written report or professional report/paper	
Final Oral or Written Examination	
Total Hours	**30-35**

*   Students who do not hold a baccalaureate degree in industrial engineering are required to take a set of undergraduate industrial engineering courses above and beyond the minimum coursework requirements.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.I.E degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
Course	3	Course	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
Course	3	Course	3
IENG 697	6	IENG 697	6
	9		**9**

Total credit hours: 36

Curriculum in Doctor of Philosophy – Industrial Engineering

A candidate for the Ph.D. degree with a major in industrial engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Industrial and Management Systems Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in industrial engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of industrial engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Required core courses for the Ph.D. program are determined by the student's area of emphasis. The research work for the doctoral dissertation may entail a fundamental investigation or a broad and comprehensive investigation into an area of specialization.

Curriculum Requirements

A minimum cumulative GPA of 3.4 is required in all courses

Course Requirements [*]	
Research	24
IENG 797	Research	
Select from the following based on degree path:	30
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799	
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**54**

[*]   Students who do not hold a baccalaureate degree in industrial engineering are required to take a set of undergraduate industrial engineering courses above and beyond the minimum coursework requirements.
Required core courses for the Ph.D. program are determined by the student's area of emphasis. In general, Ph.D. students take approximately fifty-four hours of coursework beyond their baccalaureate degree, with a minimum of thirty hours in industrial engineering.

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the industrial engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research proposal and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows

First Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
IENG 797	3	IENG 797	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
IENG 797	3	IENG 797	3
	9		**9**

Third Year

Fall	Hours	Spring	Hours
Course	3	Course	3
IENG 797	6	IENG 797	6
	9		**9**

Total credit hours: 54

Occupational Safety and Health

Degree Offered:

- Doctor of Philosophy, Occupational Safety and Health (Ph.D.)

PROGRAM EDUCATIONAL OBJECTIVES

Drawing from the university's mission, the program mission, and the needs of our constituents, the following educational objectives were developed for the Doctor of Philosophy degree in Occupational Safety and Health:

1. Anticipate and recognize hazards and environmental cases requiring the application of safety and health methods in occupational settings.

2. Identify social and epidemiological trends in occupational safety and health issues at the national and international levels.
3. Identify methods of management in application of effective control techniques.
4. To demonstrate understanding of federal, state, and local regulatory agencies as they impact the practice of occupational safety and health.
5. Conduct, disseminate, and publish original research in occupational safety and health.
6. Be qualified to enter the profession as a professor, practitioner, or researcher in occupational safety and health.

STUDENT OUTCOMES

In order to meet the Program Educational Objectives, students of the Occupational Safety and Health Doctoral program must be able to meet the following educational outcomes at the time of their graduation. Students will have acquired the ability:

1. To construct, manage, and evaluate a comprehensive safety and health program for large industry or government agencies.
2. To participate in the safety and health regulatory process as an individual or part of a corporation or university.
3. To critically evaluate research conducted by other individuals or corporations in occupational safety and health.
4. To provide excellent teaching at the University or corporate levels.
5. To participate in activities such as conferences or seminars for continued professional improvement.
6. To actively participate as a leader in the professional organizations that serve the occupational safety and health fields.
7. To demonstrate the highest possible ethical standards in the field of occupational safety and health.

For admission into the Ph.D. program, applicants must meet department admission standards and should have, at a minimum, a 3.4 GPA (or equivalent) in their graduate work. They must also meet all the entrance requirements stated above for the Master's programs. Typically, a Master's degree is required for admission into the Ph.D. program.

Curriculum in Doctor of Philosophy – Occupational Safety and Health

A candidate for the Ph.D. degree with a major in occupational safety and health must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Industrial and Management Systems Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in occupational safety and health is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of occupational safety and health.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Required core courses for the Ph.D. program are determined by the student's area of emphasis. The research work for the doctoral dissertation may entail a fundamental investigation or a broad and comprehensive investigation into an area of specialization.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements	
Research	24
IENG 797	Research
Select from the following based on degree path:	18
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PCOL, PNGE, PHYS, PUBH, SAFM, SENG, or STAT courses 500-799	
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**42**

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the occupational safety and health field to determine whether or not they have sufficient knowledge to undertake independent research.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research proposal and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows.

First Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
IENG 797	3	IENG 797	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
Course	3	Course	3
IENG 797	9	IENG 797	9
	12		**12**

Third Year

Fall	Hours	Spring	Hours
IENG 797	9	IENG 797	9
	9		**9**

Total credit hours: 60

Safety Management

Degree Offered:

- Masters of Science, Safety Management (M.S.)

MASTERS OF SCIENCE, SAFETY MANAGEMENT

The mission of the safety management program is to prepare program graduates to meet the safety mission of any enterprise. This is stated simply as: The safety mission of an organization is to protect, conserve, and improve the resources—people, property, and efficacy—of the organization. The Master's of Science with a major in Safety Management is accredited by the Applied Science Accreditation Commission of ABET.

PROGRAM EDUCATIONAL OBJECTIVES

Drawing from the university's mission, the program mission, the needs of our constituents, and the Applied Science Accreditation Commission Criteria of ABET, the following educational objectives were developed for the Masters of Science program in Safety Management:

A graduate of the Safety Management program will be able to:

1. Communicate effectively, orally and in writing, including the transmission of safety data to management and employees.
2. Demonstrate knowledge and skills in the area of safety management.
3. Demonstrate knowledge of ethical and professional responsibilities and knowledge of applicable legislation and regulations.
4. Demonstrate the ability to apply various research activities through the decision-making process used in safety management.

STUDENT OUTCOMES

In order to meet Program Educational Objectives of the Safety Management program, students must be able to meet the following outcomes at the time of their graduation:

1. Demonstrate knowledge and skills to build a comprehensive Safety and Health program based on loss control and regulations
2. Demonstrate knowledge and skills to use analytical techniques in the Safety and Health function
3. Demonstrate knowledge and skills with federal, state, and non-governmental Safety and Health program standards and best practices
4. Demonstrate skills in written and oral communications at the level of professionals in safety and health positions
5. Demonstrate knowledge and skills in writing and evaluating safety and health research proposals
6. Demonstrate knowledge and skills in using management tools to implement and evaluate Safety and Health programs

For admission into the M.S. Safety Management Program, applicants must meet department admission standards and ABET/ASAC prerequisite course requirements, which are currently a minimum of sixty-three credit hours of approved science, mathematics, and other technical courses. Of these, at least fifteen credit hours must be junior or senior level. In addition, students must have a minimum of twenty-one hours of social sciences, humanities, and/or communications. On an individual basis, the faculty may identify additional prerequisite coursework. Applicants will be advised about their specific requirements at the time of admission. Applicants not meeting all of the listed requirements may be considered for admission as provisional students.

Curriculum in Masters of Science – Safety Management

A candidate for the M.S. degree with a major in safety management must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Industrial and Management Systems Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research (thesis or problem report option) and follow a planned program of study. The student's faculty advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Students who do not hold a baccalaureate degree in safety management may be required to take a set of undergraduate courses above and beyond the minimum coursework requirements.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level or above		
SAFM 501	Safety Management Integration	3
SAFM 502	Controlling Environmental and Personnel Hazards	3
SAFM 505	Safety Legislation and Compliance	3
SAFM 528	Economic Aspects of Safety	3
SAFM 534	Fire Safety Management	3
SAFM 550	Loss Control and Recovery	3
SAFM 552	Safety and Health Training	3
SAFM 640	Instrumentation for Safety Managers	3
SAFM 689	Professional Field Experience [**]	3
Electives		
Select three from the following:		9

SAFM 470	Managing Construction Safety	
SAFM 471	Motor Fleet Safety	
SAFM 533	Disaster Preparedness	
SAFM 539	Security Management	
SAFM 580	Fundamentals of Environmental Management	
IH&S 527	Noise Measurement and Control	
IH&S 528	Industrial Ventilation Design	
IH&S 725	Industrial Hygiene Sampling and Analysis	
IENG 461	System Safety Engineering	
IENG 561	Industrial Hygiene Engineering	
IENG 564	Industrial Ergonomics	
IENG 660	Human Factors System Design	
IENG 662	Systems Safety Engineering	
ENVP 515	Hazardous Waste Training	
ENVP 555	Environmental Sampling and Analysis	
MINE 471	Mine and Safety Management	
RESM 480	Environmental Regulation	
OEHS 601	Environmental Health	
OEHS 620	Occupational and Environmental Hazard Assessment	
OEHS 622	Public Health Toxicology	
OEHS 623	Occupational Injury Prevention	
OEHS 630	Public Health Biology	
OEHS 665	Worksite Evaluation	
SBHS 601	Social and Behavioral Theory	
FIN 455	Risk Management	
CHPR 614	Injury Prevention and Control	
Any IH, IENG, OEHS, EDIP, SAFM, SHBS, or PUBH courses 400-799		
Choose 1 of the following options:		3-6
Thesis Option - 6 hours		
SAFM 697	Research (6 hours)	
Written Reseach Proposal		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 3 hours		
SAFM 697	Research (3 hours)	
Written Research Proposal		
Formal written report or professional report/paper		
Final Oral or Written Examination		
Coursework Option		
Final Oral or Written Examination		
Total Hours		**39-42**

*   Students who do not hold a baccalaureate degree in safety management may be required to take a set of undergraduate courses above and beyond the minimum coursework requirements.

**   Students who have SHE work experience have the possibility to waive SAFM 689 and take an additional elective, please see your advisor for approval.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Coursework Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S. degree program that completes degree requirements in one and half years is as follows.

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SAFM 501	3	SAFM 528	3	SAFM 689	3
SAFM 502	3	SAFM 640	3		
SAFM 505	3	SAFM 550	3		
Elective	3	Elective	3		
	12		**12**		**3**

Second Year

Fall	Hours
SAFM 552	3
SAFM 534	3
Elective	3
	9

Total credit hours: 36

Department of Mechanical and Aerospace Engineering

Degrees Offered

- Masters of Science, Aerospace Engineering (M.S.A.E.)
- Masters of Science, Mechanical Engineering (M.S.M.E.)
- Doctor of Philosophy, Aerospace Engineering (Ph.D.)
- Doctor of Philosophy, Mechanical Engineering (Ph.D.)

Faculty

Faculty members in the department have extensive research, industrial, and teaching experience and have published widely. Their combined experience helps them assist students in selecting relevant courses and research topics to meet their educational goals. The department has excellent laboratory facilities in the Engineering Sciences Building, the Engineering Research Building, and the new Engineering Sciences Building Annex to provide support for both instructional and research activities. The department has several special purpose laboratories located nearby, which include the Engine Research Center, the wind tunnel laboratory, and the aircraft test hangar at the Morgantown Municipal Airport (Hart Field). Funded research allows the department to maintain up-to-date facilities that include modern instrumentation and computing and lab equipment, including simulation and computer-controlled data acquisition systems.

Graduate Programs

The objectives of the departmental graduate-level programs are as follows:

1. To provide masters-level education for students in or entering the engineering profession
2. To provide an advanced graduate educational experience for students pursuing the doctoral degree

Three master's degrees are offered in the department: master's of science in aerospace engineering (M.S.A.E.), master's of science in mechanical engineering (M.S.M.E.), and master's of science in engineering (M.S.E.) with a major in mechanical engineering or aerospace engineering. The department also offers the doctor of philosophy (Ph.D.) degree with majors in mechanical engineering or aerospace engineering.

Courses

Only courses with grades of C or higher are acceptable for graduate credit, although all coursework taken will be counted in establishing the student's grade point average. No more than nine hours of 400-level credit can be counted toward meeting the coursework requirements for the M.S. degree. Only 400-level courses that are approved for math credit (see the following section) and only 400-level courses approved as technical electives for the B.S. degree in an engineering discipline are acceptable for course credit towards the M.S. degree. The technical elective(s) must not have been used to satisfy the B.S. degree. The absolute minimum requirement set by the department for coursework credit towards a Ph.D. degree is eighteen hours beyond the master's degree at the 500-level or higher taken at WVU. However, the actual minimum number of coursework credits is set by the student's advisory and examining committee and is based on the student's background and the area of his/her Ph.D. dissertation. No more than twenty percent of the coursework beyond the minimum of eighteen credit hours required by the college for a doctoral degree can be at the 400-level. A minimum

of twenty-four semester hours of research credit at the Ph.D.-level is required to meet dissertation requirements. Two consecutive semesters of full-time attendance at the WVU campus in Morgantown are necessary to meet the residency requirements of the Ph.D. program.

Math Requirements

The Department of Mechanical and Aerospace Engineering requires that the graduate coursework include six hours of advanced mathematics for the M.S. programs of study and a minimum of six additional hours of mathematics for the Ph.D. programs. A list of mathematics courses approved for graduate credit can be obtained from the graduate program director of the department.

Time Limitations

All requirements for a master's degree must be completed within eight years preceding the student's graduation. All students pursuing an M.S. degree in the MAE department are required to engage in research, and complete and defend successfully an M.S. thesis. They should identify a subject for their M.S. thesis research, form a three-member advisory and examining committee, and file a plan of study by the end of their second semester of enrollment in the graduate program. A minimum of twenty-four credit hours of coursework and six credit hours of M.S. thesis research is required for the M.S. degree. Students must pass a final examination administered by their advisory and examining committee before being certified for the degree.

Academic Areas

Graduate courses in the MAE department are organized under six academic areas: fluids and aerodynamics, solid mechanics and structures, design and controls, thermal sciences, bioengineering, and materials science. Students who are pursuing an advanced degree in either mechanical or aerospace engineering may perform their thesis or dissertation research and specialize in any one of these areas.

FLUIDS AND AERODYNAMICS

A variety of courses and facilities support graduate research in aerodynamics and fluid mechanics. Laboratories are located in college buildings and remote sites. Flow facilities include instrumented subsonic and supersonic wind tunnels, shock tubes, and several flow loops mainly used for research in gas-solid and density stratified flows. Available instrumentation includes eight channels of hot wire/film anemometry, two single-component and one three-component, laser Doppler velocimeter (LDV) systems. The department owns two flight simulation facilities, one that simulates translational and rotational motion in six degrees of freedom, and the other that relies on D-six software to provide "joystick only" flight simulation. Furthermore, the department built and operates different types of Unmanned Airborne Vehicles (UAV's), as well as experimental aircraft and airborne systems that are housed in a hangar owned by the department at the Hart Field municipal airport in Morgantown. A significant portion of the current activity involves numerical solutions to flow problems and is supported by a computing facility dedicated to graduate research.

Although the faculty background and interests in the areas of aerodynamics and fluid mechanics are broad, recent research has been concentrated on applications of computational fluid dynamics (CFD) to investigate a wide variety of problems in fuel cell technology, fixed wing and rotorcraft aerodynamics, bioengineering, and combustion. The department's faculty have accumulated extensive research experience in multiphase and density-stratified flows, low-speed aerodynamics, shock phenomena in two-phase systems, flow in microgravity, boundary layer control, and high-speed aerodynamics. Previous and current research areas include topics such as fluidized bed combustion, aerosol sampling, flow metering, flow distribution systems, numerical solutions to gas-solid flows, and fluid-particle turbulence interactions, including deposition on solid surfaces. The low-speed aerodynamics work is related to the design of vertical axis wind turbines and STOL airfoils. The research in high-speed aerodynamics deals with viscous-inviscid interactions in transonic, supersonic, and hypersonic flow.

SOLID MECHANICS AND STRUCTURES

The solid mechanics and structures area encompasses the theoretical, numerical, and experimental study of solid bodies, from concentration on local behavior of deformable bodies to the global response of structural elements. Hence, students may explore the mechanical behavior of materials in the neighborhood of micro-scale defects such as cracks, or investigate the behavior of large-scale bodies such as aerospace structures.

The faculty members specialized in this area carry out basic and applied research using state-of-the-art computational and experimental techniques. The areas of research include advanced metal alloys and composite materials, lightweight structures, safety and durability enhancements, real time monitoring and diagnosis of structural systems, aero elasticity, fracture mechanics, nonlinear dynamics and vibrations, biomechanics; and computational methods and experimental techniques, including optical and ultrasound methods. Furthermore, in cooperation with the Department of Civil and Environmental Engineering, MAE graduate students may pursue studies related to civil engineering. A large array of research facilities includes laboratories (materials, structures, vibrations, photo mechanics, biomechanics, fracture mechanics), computers (work stations, personal computers, computer-aided engineering), and mechanical and electronic shops.

DESIGN AND CONTROLS

The system control and design area offers instructional and research opportunities for students who seek to attain the expertise required to design or control the behavior of an engineering system in a dynamic environment. Instructional offerings equip the students with a foundation for developing prototype systems and for improving the performance of existing systems. Selected examples of research areas include flight simulation and controls, automatic controls, advanced instrumentation, microprocessor applications and non-destructive testing; parametric, stochastic, and integrated design methods; elastodynamic analysis, computer-aided design (CAD); and modeling, design, and analysis of energy management systems. The research endeavors of the faculty reflect a close association with current industrial-type, real-life situations.

THERMAL SCIENCES

The thermal sciences and engineering area encompasses the fields of thermodynamics, combustion, heat transfer, and power and energy systems. Graduate course offerings cover a wide range of topics in this area with applications to both aerospace and mechanical engineering problems. Recent research efforts include topics such as alternative fuels testing, internal combustion engine performance and emissions, fuel cell technology, heat transfer, numerical analysis of thermal systems, the analysis of fluidized bed combustion, energy analysis of buildings, oscillating jet combustion, deposition on turbine blades, and reactor design.

Research facilities include a state-of-the-art engine research laboratory, three transportable emissions research laboratories, thermal analyzers, recording thermocouple data-acquisition systems, high-altitude simulation chamber for ablation and wear studies, a fluidized bed combustion laboratory, an electrically-heated, natural convection water facility, Schlieren systems for flows with varying density, and a water reservoir for thermal stratification studies.

BIOENGINEERING

Areas of research specialization related to bioengineering include ultrasound technology for imaging of body tissues and organs, respiratory and diseased tissue mechanics, orthopedic mechanics, bone growth and fracture, and the application to rehabilitation of computer-aided design and microprocessor-based instrumentation. Research facilities include a state-of-the-art ultrasound imaging laboratory, an aerosol inhalation exposure system, laser-based holographic and moire interferometric equipment, a lung acoustic impedance measurement system; and modern orthopedic, rehabilitation, and computer research laboratories.

MATERIALS SCIENCE AND ENGINEERING

The materials science and engineering area allows for the study of processing, structure, and properties of materials for structural, functional, and device applications. Areas of research emphasized within this area include advanced microscopy, composite materials, materials for fuel cells, smart materials, super alloys, facilities incorporating electron microscopy, scanning probe microscopy, electro-chemical characterization, thermal analysis, and mechanical testing facilities.

FACULTY

CHAIR

- Jacky Prucz - Ph.D. (Georgia Institute of Technology)
  Structural Design, Composite Materials, Solid Mechanics

PROFESSORS

- Richard Bajura - Ph.D. (University of Notre Dame)
  Director NRCCE, Energy Sciences
- Ever Barbero - Ph.D. (Virginia Polytechnic Institute and State University)
  Materials, Experimental and Computational Mechanics
- Ismail Celik - Ph.D. (University of Iowa)
  Fluids Engineering, Fuel Cell Technology
- Nigel Clark - Ph.D. (University of Natal, South Africa)
  Associate VP for Academic Strategic Planning, Multiphase Flows, I.C. Engines and Emissions
- Russel Dean - Ph.D. (West Virginia University)
  Senior Associate Provost, Engineering Education
- Bruce Kang - Ph.D. (University of Washington)
  Experimental Mechanics, Advanced Materials
- John Kuhlman - Ph.D. (Case Western Reserve University)
  Fluid Mechanics
- Xingbo Liu - Ph.D. (University of Science and Technology, Beijing)
  Materials Science
- Kenneth Means - Ph.D., P.E. (West Virginia University)
  Kinematics, Dynamics and Stability, Friction and Wear
- Gary Morris - Ph.D. (West Virginia University)
  Fluid Mechanics, Combustion, Aerodynamics
- Victor Mucino - Ph.D., P.E. (University of Wisconsin, Milwaukee)
  Mechanical Engineering Design, CAD, Finite Element Applications
- Marcello Napolitano - Ph.D. (Oklahoma State University)
  Aircraft Stability and Control, Feedback Control, Dynamics, Unmanned Airborne Vehicles (UAVs)
- Samir Shoukry - Ph.D. (Aston University, Birmingham UK)
  Pavement Modeling, Non-destructive Evaluation, Structural Dynamics, Neural Nets, Instrumentation

- Nithi Sivaneri - Ph.D. (Stanford University)
  Structural Mechanics, Composite Materials, FEM, Numerical Methods
- James E. Smith - Ph.D. (West Virginia University)
  Mechanical and Aeronautical Design
- Nianqiang Wu - Ph.D. (Zhejiang University, China)
  Materials Science and Engineering

ASSOCIATE PROFESSORS

- Wade Huebsch - Ph.D. (Iowa State University)
  Fluid Mechanics, CFD, Numerical Methods
- Hailin Li - Ph.D. (University of Calgary)
  Combustion, Emissions, Fuel efficiency of vehicles and internal combustion engines
- Osama Mukdadi - Ph.D. (University of Colorado)
  Bioengineering, Acoustics, Solid mecanics and materials
- Mario Perhinschi - Ph.D. (Polytechnic Institute Bucharest, Romania)
  Aircraft Stability and Control, Flight Simulation
- Edward Sabolsky - Ph.D. (Pennsylvania State University)
  Materials, Ceramic Science
- Xueyan Song - Ph.D. (Zhejiang University, China)
  Materials Science, Electron Microscopy
- Gregory Thompson - Ph.D. (West Virginia University)
  Thermodynamics, Machine Design.
- W. Scott Wayne - Ph.D. (West Vriginia University)
  Machine design, Alternative fuels

ASSISTANT PROFESSORS

- Vyacheslav Akkerman - Ph.D. (Umea University, Sweden)
  Turbulent combustion and flame turbulization, Propulsion and combustion instabilities in rocket engines
- Patrick Browning - Ph.D. (West Virginia University)
  Aerodynamics, Aircraft Design
- Marvin Cheng - Ph.D. (Purdue University)
  Mechatronics, Dynamic Systems and Control
- John Christian - Ph.D. (University of Texas, Austin)
  Spacecraft Design, Spacecraft Navigation, Estimation theory
- Cosmin E. Dumitrescu - Ph.D. (University of Alabama)
- Jason Gross - Ph.D. (West Virginia University)
  Unmanned aerial vehicle avionic systems and flight testing
- Yu Gu - Ph.D. (West Virginia University)
  Robotic Systems, Sensor Fusion
- Alfred Lynam - Ph.D. (Purdue University)
  Space mission design, Orbital perturbations
- David Mebane - Ph.D. (Georgia Institute of Technology)
  Fuel cells, Multi-scale Simulation of chemical and electrochemical systems
- Terrance Musho - Ph.D. (Vanderbilt University)
  Nanoscale thermal and electrical transport, Direct energy conversion
- Andrew Nix - Ph.D. (Virginia Polytechnic Institute and State University)
  Turbines, Engines and Emissions
- Konstantinos Sierros - Ph.D. (University of Birmingham, United Kingdom)
  Flexible optoelectronic devices, Tribology, Materials for renewable energy

RESEARCH ASSOCIATE PROFESSORS

- David Lewellen - Ph.D. (Cornell University)
  Fluid Dynamics, Turbulence

RESEARCH ASSISTANT PROFESSORS

- Arvind Thiruvengadam - Ph.D. (West Virginia University)
  Exhaust of heavy-duty internal combustion engines
- Derek Johnson - Ph.D. (West Virginia University)

Alternative fuels engines and emissions
- Hui Zhang - Ph.D. (Beihang University)
  Materials, Physics, Chemistry
- Jay Wilhelm - Ph.D. (West Virginia University)
  Unmanned aerial systems, Wind turbine modeling
- Thomas Evans - Ph.D. (West Virginia University)
  Solid Mechanics, Structures
- Yun Chen - Ph.D. (Unuiversidade Tecnica de Lisboa)
  Material science, Metal hydrides, Cathode material development

VISITING AND ADJUNCT PROFESSORS

- Alberto Ayala - Ph.D. (University of California, Davis)
  Energy, Engine Emissions
- Mark Bright - Ph.D. (West Virginia University)
  Materials Engineering, Pyrotech Inc.
- Pete Gall - Ph.D. (West Virginia University)
  Aerospace systems design.
- Renguang Dong - Ph.D. (Concordia University)
  Biomechanics, Human Vibrations, NIOSH
- Mridul Gautam - Ph.D. (West Virginia University)
  Alternative fuels, engines and emissions
- Luis Godoy - Ph.D. (University of London)
  Structural Stability
- Frank Goodwin - Sc.D. (Massachusetts Institute of Technology)
  Materials Engineering, ILZRO
- Nabil Hakim - Ph.D. (Wayne State University)
  Alternative Fuels Engines and Emissions
- Paul E. King - Ph.D.
  Materials engineering, NETL
- Stephen Kukureka - Ph.D. (University of Birmingham)
- Alejandro Lozano-Guzman - Ph.D. (Newcastle University)
  Dynamic Systems (CICATA-IPN Mexico)
- Eugene McKenzie - Ph.D. (West Virginia University)
  Mechanical Engineering Design, NIOSH
- Chris Menchini - Ph.D. (West Virginia University)
  Computational fluid dynamics, Fire modeling
- Koorosh Mirfakraie - Ph.D.
- Vincenzo Mulone - Ph.D. (University of Rome, Tor Vergata)
  Engine Emissions
- John Nuzkowski - Ph.D. (West Virginia University)
  Alternative fuels and engine emissions, UNF
- Ming Pei - Ph.D.
  Tissue Engineering
- Steven Raque - B.S. (Virginia Polytechnic Institute and State University)
  Space vehicle design
- Alberto Traverso - Ph.D.
  DIMSET - Italy
- Steven Woodruff - Ph.D. (University of Michigant)
  Combustion optical phenomena
- Kirk Yerkes - Ph.D.

PROFESSORS EMERITI

- Larry Banta - Ph.D. (Georgia Institute of Technology)
- Eric Johnson - Ph.D. (University of Wisconsin-Madison)
- John Loth - Ph.D. (University of Toronto)
- Michael G. Palmer - Ph.D. (West Virginia University)

- John E. Sneckenberger - Ph.D. (West Virginia University)
- Wallace S. Venable - Ed.D. (West Virginia University)
- Richard E. Walters - Ph.D. (West Virginia University)

Admission

The applicant must first submit a completed application, application fee, and transcripts of all college work (directly from the institution) to the WVU Office of Admissions. Each applicant is required to complete an applicant information form and have three recent reference letters (using standard forms available from the department) sent directly to the department; at least two of the three references should be from the institution last attended.

Regular Admission Requirements

Minimum requirements for admission as a regular student into the graduate programs of the department are summarized as follows:

- An applicant for admission into the M.S. or the Ph.D. degree program must have earned a grade point average (GPA) of 3.0 or better (out of a possible 4.0) in all previous college work if he/she holds a B.S. or M.S. degree, respectively, from an accredited or internationally recognized program, as stated above.
- Applicants for admission into the B.S.M.S. degree track must have a grade point average of 3.5 or higher at the end of the first semester in the junior year of the curriculum. Applicants for admission into the direct-track from B.S. to Ph.D. degree option must have a grade point average of 3.5 or higher if they commence their graduate studies in the department as Ph.D. students or must have a cumulative grade point average of 4.0 if they transfer from the M.S. degree program by the end of their first year of graduate studies in the department.
- International students must demonstrate proficiency in communicating in English (a minimum TOFEL Score of 550, or IBT Score of 79, or IELTS Score of 6.5). (This requirement will be waived for applicants who have completed a recent four-year bachelor's degree in the USA.)
- All international applicants who have not received their undergraduate degree in the USA are required to submit GRE general test scores with the engineering subject test score being optional. The GRE scores required for admission as a regular graduate student in the department need to be seventy-fourth percentile or higher in the Quantitative section (strictly enforced). The GRE scores for the verbal and analytical sections will be taken into consideration in the admission process.

Provisional Admission

An applicant not qualifying for the admission status of regular graduate student, either due to marginally insufficient grade point average or GRE performance, incomplete credentials, or inadequate academic background, may be admitted as a provisional student at the discretion of the Admissions Committee of the department. Requirements for attaining regular student status must be stated in a letter of admission. Provisional students must sign a contract, which lists in detail all requirements that have to be met for attaining regular student status, typically no later than the end of the first semester at WVU.

All of the graduate degree programs offered by the department require the student to attain an overall grade point average of 3.0 or higher both in all the courses required for the degree program and in all the courses taken at WVU in order to meet graduation requirements. The cumulative grade point average (GPA) is calculated on the basis of courses only, and excludes credit for research, for which the received grade can be either S (satisfactory), or U (unsatisfactory) . Note: A grade of U in research is equivalent to a grade of F in a regular course and it can decrease drastically the GPA of a graduate student.

Doctoral Admission
ADMISSION TO DOCTOR OF PHILOSOPHY PROGRAM

To be eligible for admission into the doctor of philosophy degree program with a major in aerospace or mechanical engineering, a candidate must hold or expect to receive (by the enrollment date) a M.S. degree in an engineering discipline from an institution which has an ABET accredited undergraduate program in engineering or an internationally recognized program in engineering (except for students qualified for the direct track to Ph.D. degree option, described below). Qualified candidates holding a M.S. degree in applied sciences can also be considered for admission into the Ph.D. program.

ADMISSION TO THE DIRECT-TRACK TO PH.D. DEGREE OPTION

The Department of Mechanical and Aerospace Engineering (MAE) offers a direct track option from the bachelor of science (B.S.) to the doctor of philosophy (Ph.D.) degree for prospective qualified students holding a B.S. degree in an engineering discipline, materials science, mathematics, or applied sciences from an accredited undergraduate program or an internationally recognized program. This is an accelerated track that provides outstanding candidates the option of earning a Ph.D. degree in less than five years after graduating from an undergraduate program by engaging early in their Ph.D. dissertation research without having to complete first a thesis research for a master of science (M.S.) degree. To qualify for the direct track degree option, a candidate must have earned a cumulative grade point average (GPA) of 3.5 or higher in his/her undergraduate studies and attain seventy-fourth percentile in the quantitative section of the standardized Graduate Record Examination (GRE). Students who are pursuing an M.S. degree in the MAE department have also the possibility of transferring into the direct track option provided that they earn a GPA of 4.0 and attain seventy-fourth percentile in the quantitative section of the GRE by the end of their first two semesters of graduate studies at WVU. Students admitted into the direct track option are considered to be Ph.D. students in the MAE department.

For specific information on the following programs please see the links to the right:

- **Aerospace Engineering**
- **Mechanical Engineering**

Aerospace Engineering

Degrees Offered

- Masters of Science, Aerospace Engineering (M.S.A.E.)
- Doctor of Philosophy, Aerospace Engineering (Ph.D.)

The outcomes of the graduate programs in Aerospace Engineering are as follows:

- Holders of graduate degrees will have an expert-level understanding of the advanced principles of aerospace engineering, which include aerospace systems design, aircraft or spacecraft dynamics, stability and control, flight mechanics and simulation, advanced materials, vehicle propulsion, aerodynamics, aeroelasticity, and computational mechanics.
- Holders of graduate degrees will hold paramount the highest standards of ethical and professional responsibility in the practice of their profession to contribute to the well-being of society and to the advancement of the aerospace engineering profession.
- Holders of Ph.D. degrees will have furthered original research contributions to the state of the art in their specific areas of expertise and will be able to develop innovative research in order to advance the frontiers of knowledge, secure sponsored research, and disseminate its findings through scholarly publications.

Curriculum in Master of Science in Aerospace Engineering

A candidate for the M.S. degree in aerospace engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Mechanical and Aerospace Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level or above		
Core Courses		
Select two of the following:		6
MAE 543	Advanced Mechanics of Materials	
MAE 641	Theory of Elasticity 1	
MAE 643	Inelastic Behavior of Engineering Materials	
MAE 660	Feedback Control in Mechanical Engineering	
MAE 653	Advanced Vibrations	
MAE 532	Dynamics of Viscous Fluids	
MAE 521	Advanced Thermodynamics 1	
MAE 624	Convection Heat Transfer	
MAE 649	Microscopy of Materials	
MAE 693	Special Topics	
Mathematics Requirements		
Select two of the following:		6
MATH 420	Numerical Analysis 1	
MATH 441	Applied Linear Algebra	
MATH 456	Complex Variables	
MATH 521	Numerical Analysis	
MATH 522	Numerical Solution of PDE	

MATH 541	Modern Algebra	
MATH 543	Linear Algebra	
MATH 545	Number Theory 1	
MATH 551	Real Variables 1	
MATH 555	Complex Variables 1	
MATH 563	Mathematics Modeling	
MATH 564	Intermediate Differential Equations	
MATH 567	Advanced Calculus	
MATH 568	Advanced Calculus	
MATH 573	Graph Theory	
STAT 513	Design of Experiments	
STAT 545	Applied Regression Analysis	
STAT 561	Theory of Statistics 1	
STAT 562	Theory of Statistics 2	
MAE 623	Conduction Heat Transfer	
MAE 633	Computational Fluid Dynamics	
MAE 640	Continuum Mechanics	
MAE 645	Energy Methods in Applied Mechanics	
CHE 531	Mathematical Methods in Chemical Engineering	
EE 463	Digital Signal Processing Fundamentals	
EE 465	Introduction to Digital Image Processing	
EE 515	Linear Control Systems	
EE 517	Optimal Control	
IENG 518	Technology Forecasting	
IENG 553	Applied Linear Programming	
PHYS 461	Thermodynamics and Statistical Mechanics	
PHYS 611	Introduction to Mathematical Physics	
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799		12
Complete 1 of the following options:		6-9
Thesis Option - 6 hours		
MAE 697	Research (6 hours)	
Written Research Proposal		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 9 hours		
Complete 6 additional hours of coursework		
MAE 697	Research (3 hours)	
Written Research Proposal		
Formal written report or professional report/paper		
Final Oral or Written Examination		
Total Hours		**30-33**

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.A.E degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours
Core Course	3	Core Course	3
Math Course	3	Math Course	3
Additional Course	3	Additional Course	3
	9		**9**
Second Year			
Fall	**Hours**	**Spring**	**Hours**
Additional Course		Additional Course	3
MAE 697	3	MAE 697	3
	6		**6**

Total credit hours: 30

Curriculum in Doctor of Philosophy – Aerospace Engineering

A candidate for the Ph.D. degree with a major in aerospace engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Mechanical and Aerospace Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in aerospace engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of aerospace engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

The doctoral courses of study are selected to fit the particular interests and objectives of the student, with proper attention given to broadening related areas of study. The research work for the doctoral dissertation may entail a fundamental investigation into a specialized area or a broad and comprehensive study in a related subject.

All students pursuing a Ph.D. degree in the MAE department are expected to engage in research and complete and successfully defend a Ph.D. dissertation. They should identify a subject for their Ph.D. dissertation, form a five-member advisory and examining committee, and file a plan of study by the end of their second semester of enrollment in the graduate program. At least one member of the graduate faculty from outside the department is required to serve on the advisory and examining committee.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
Core Courses		
Select one of the following:		3
MAE 543	Advanced Mechanics of Materials	
MAE 641	Theory of Elasticity 1	
MAE 643	Inelastic Behavior of Engineering Materials	
MAE 660	Feedback Control in Mechanical Engineering	
MAE 653	Advanced Vibrations	
MAE 532	Dynamics of Viscous Fluids	
MAE 521	Advanced Thermodynamics 1	
MAE 624	Convection Heat Transfer	
MAE 649	Microscopy of Materials	
MAE 693	Special Topics	
Mathematics Requirement		
Select two of the following:		6
MATH 521	Numerical Analysis	
MATH 522	Numerical Solution of PDE	

MATH 541	Modern Algebra	
MATH 543	Linear Algebra	
MATH 545	Number Theory 1	
MATH 551	Real Variables 1	
MATH 555	Complex Variables 1	
MATH 563	Mathematics Modeling	
MATH 564	Intermediate Differential Equations	
MATH 567	Advanced Calculus	
MATH 568	Advanced Calculus	
MATH 573	Graph Theory	
STAT 513	Design of Experiments	
STAT 545	Applied Regression Analysis	
STAT 561	Theory of Statistics 1	
STAT 562	Theory of Statistics 2	
MAE 623	Conduction Heat Transfer	
MAE 633	Computational Fluid Dynamics	
MAE 640	Continuum Mechanics	
MAE 645	Energy Methods in Applied Mechanics	
CHE 531	Mathematical Methods in Chemical Engineering	
EE 515	Linear Control Systems	
EE 517	Optimal Control	
IENG 518	Technology Forecasting	
IENG 553	Applied Linear Programming	
PHYS 611	Introduction to Mathematical Physics	
Research		24
MAE 797	Research	
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799		9
Examinations		
Qualifying Exam		
Candidacy Exam		
Final Exam		
Total Hours		**42**

*   Students who do not hold a baccalaureate degree in aerospace engineering are required to take a set of undergraduate aerospace courses above and beyond the minimum coursework requirements.
A minimum of fifty-four hours of coursework and thirty hours of independent research beyond a bachelor's degree, or eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

Examinations
QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the aerospace engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

The Ph.D. qualifying examination is the method of assessing whether the student has attained sufficient knowledge of the discipline and supporting fields in order to undertake independent research or practice. Students are required to pass a qualifying examination administered by the department which tests for a minimum level of proficiency expected of all students in a given area. It is expected that students will take the qualifying exam during their first or second semester of enrollment in the Ph.D. program; however, it is required that full-time students pass the qualifying examination no later than the end of the third semester of enrollment in their Ph.D. program. Students admitted in the direct track from B.S. to Ph.D. degree option are expected to take the qualifying exam by the end of their fourth semester of enrollment in the MAE graduate program.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

As the student progresses, his or her advisory and examining committee is charged with evaluating the student's competency in the specific area of study through the assessment of a dissertation proposal for the research to be completed and the evaluation of the student's plan of study and associated coursework. After these requirements are completed, the student is formally admitted to candidacy for the Ph.D. degree. Only at this point can a student be called a doctoral candidate; admission to the graduate program for the purpose of pursuing the Ph.D. degree is not equivalent to becoming a Ph.D. candidate. Doctoral candidates are allowed no more than five years to complete the remaining degree requirements after admission to candidacy. An extension of time can be obtained only by repeating the qualifying and candidacy examinations and meeting any other requirements specified by the student's advisory and examining committee.

A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research proposal and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows. The Ph.D. degree signifies that the holder has the competence to function independently at the highest level in the chosen field. Hence, the number of years involved in attaining or retaining competency cannot be readily specified, nor can an exact program of study be defined.

First Year

Fall	Hours	Spring	Hours
Core Course	3	Math Course	3
Math Course	3	Additional Course	3
MAE 797	3	MAE 797	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
Additional Course	3	Additional Course	3
MAE 797	6	MAE 797	6
	9		**9**

Third Year

Fall	Hours	Spring	Hours
MAE 797	9	MAE 797	9
	9		**9**

Total credit hours: 54

Mechanical Engineering

Degrees Offered

- Masters of Science, Mechanical Engineering (M.S.M.E.)
- Doctor of Philosophy, Mechanical Engineering (Ph.D.)

The outcomes of the graduate programs in Mechanical Engineering are as follows:

- Holders of graduate degrees will have an expert-level understanding of the advanced principles of mechanical engineering, which include mechanical systems design, system dynamics, solid mechanics, energy systems, engineering materials, automatic controls, mechatronics, and computational mechanics.
- Holders of graduate degrees will hold paramount the highest standards of ethical and professional responsibility in the practice of their profession to contribute to the well being of society and to the advancement of the mechanical engineering profession.

- Holders of Ph.D. degrees will have furthered original research contributions to the state of the art in their specific areas of expertise and will be able to develop innovative research in order to advance the frontiers of knowledge, secure sponsored research, and disseminate its findings through scholarly publications.

Curriculum in Master of Science in Mechanical Engineering

A candidate for the M.S. degree in mechanical engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Mechanical and Aerospace Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
A minimum of 60% of courses must be from 500 level or above		
Core Courses		
Select two of the following:		6
MAE 543	Advanced Mechanics of Materials	
MAE 641	Theory of Elasticity 1	
MAE 643	Inelastic Behavior of Engineering Materials	
MAE 660	Feedback Control in Mechanical Engineering	
MAE 653	Advanced Vibrations	
MAE 532	Dynamics of Viscous Fluids	
MAE 521	Advanced Thermodynamics 1	
MAE 624	Convection Heat Transfer	
MAE 649	Microscopy of Materials	
MAE 693	Special Topics	
Mathematics Requirement		
Select two of the following:		6
MATH 420	Numerical Analysis 1	
MATH 441	Applied Linear Algebra	
MATH 456	Complex Variables	
MATH 465	Partial Differential Equations	
MATH 521	Numerical Analysis	
MATH 522	Numerical Solution of PDE	
MATH 541	Modern Algebra	
MATH 543	Linear Algebra	
MATH 545	Number Theory 1	
MATH 551	Real Variables 1	
MATH 555	Complex Variables 1	
MATH 563	Mathematics Modeling	
MATH 564	Intermediate Differential Equations	
MATH 567	Advanced Calculus	
MATH 568	Advanced Calculus	
MATH 573	Graph Theory	
STAT 513	Design of Experiments	
STAT 545	Applied Regression Analysis	
STAT 561	Theory of Statistics 1	
STAT 562	Theory of Statistics 2	
MAE 623	Conduction Heat Transfer	

MAE 633	Computational Fluid Dynamics	
MAE 640	Continuum Mechanics	
MAE 645	Energy Methods in Applied Mechanics	
CHE 531	Mathematical Methods in Chemical Engineering	
EE 463	Digital Signal Processing Fundamentals	
EE 465	Introduction to Digital Image Processing	
EE 515	Linear Control Systems	
EE 517	Optimal Control	
IENG 518	Technology Forecasting	
IENG 553	Applied Linear Programming	
PHYS 461	Thermodynamics and Statistical Mechanics	
PHYS 611	Introduction to Mathematical Physics	
Any BIOM, CE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799		12
Complete 1 of the following options:		6-9
Thesis Option - 6 hours		
MAE 697	Research (6 hours)	
Written Research Proposal		
Thesis		
Final Oral or Written Examination		
Problem Report Option - 9 hours		
Complete 6 additional hours of coursework		
MAE 697	Research (3 hours)	
Written Research Proposal		
Formal written report or professional report/paper		
Final Oral or Written Examination		
Total Hours		**30-33**

*   Students who do not hold a baccalaureate degree in mechanical engineering are required to take a set of undergraduate mechanical engineering courses above and beyond the minimum coursework requirements.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.M.E degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours
Core Course	3	Core Course	3
Math Course	3	Math Course	3
Additional Course	3	Additional Course	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
Additional Course	3	Additional Course	3
MAE 697	3	MAE 697	3
	6		**6**

Total credit hours: 30

Curriculum in Doctor of Philosophy – Mechanical Engineering

A candidate for the Ph.D. degree with a major in mechanical engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Mechanical and Aerospace Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in mechanical engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of mechanical engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

The doctoral courses of study are selected to fit the particular interests and objectives of the student, with proper attention given to broadening related areas of study. The research work for the doctoral dissertation may entail a fundamental investigation into a specialized area or a broad and comprehensive study in a related subject.

All students pursuing a Ph.D. degree in the MAE department are expected to engage in research and complete and successfully defend a Ph.D. dissertation. They should identify a subject for their Ph.D. dissertation, form a five-member advisory and examining committee, and file a plan of study by the end of their second semester of enrollment in the graduate program. At least one member of the graduate faculty from outside the department is required to serve on the advisory and examining committee.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
Core Courses		
Select one of the following:		3
MAE 543	Advanced Mechanics of Materials	
MAE 641	Theory of Elasticity 1	
MAE 643	Inelastic Behavior of Engineering Materials	
MAE 660	Feedback Control in Mechanical Engineering	
MAE 653	Advanced Vibrations	
MAE 532	Dynamics of Viscous Fluids	
MAE 521	Advanced Thermodynamics 1	
MAE 624	Convection Heat Transfer	
MAE 649	Microscopy of Materials	
MAE 693	Special Topics	
MAE 693	Special Topics	
Mathematics Requirement		
Select two of the following:		6
MATH 521	Numerical Analysis	
MATH 522	Numerical Solution of PDE	
MATH 541	Modern Algebra	
MATH 543	Linear Algebra	
MATH 545	Number Theory 1	
MATH 551	Real Variables 1	
MATH 555	Complex Variables 1	
MATH 563	Mathematics Modeling	
MATH 564	Intermediate Differential Equations	
MATH 567	Advanced Calculus	
MATH 568	Advanced Calculus	
MATH 573	Graph Theory	
STAT 513	Design of Experiments	
STAT 545	Applied Regression Analysis	

STAT 561	Theory of Statistics 1	
STAT 562	Theory of Statistics 2	
MAE 623	Conduction Heat Transfer	
MAE 633	Computational Fluid Dynamics	
MAE 640	Continuum Mechanics	
MAE 645	Energy Methods in Applied Mechanics	
CHE 531	Mathematical Methods in Chemical Engineering	
EE 515	Linear Control Systems	
EE 517	Optimal Control	
IENG 518	Technology Forecasting	
IENG 553	Applied Linear Programming	
PHYS 611	Introduction to Mathematical Physics	
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799		9
Research		24
MAE 797	Research	
Examinations		
Qualifying Exam		
Candidacy Exam		
Final Exam		
Total Hours		**42**

*   Students who do not hold a baccalaureate degree in mechanical engineering are required to take a set of undergraduate mechanical engineering courses above and beyond the minimum coursework requirements.

A minimum of fifty-four hours of coursework and thirty hours of independent research beyond a bachelor's degree, or eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the mechanical engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

The Ph.D. qualifying examination is the method of assessing whether the student has attained sufficient knowledge of the discipline and supporting fields in order to undertake independent research or practice. Students are required to pass a qualifying examination administered by the department which tests for a minimum level of proficiency expected of all students in a given area. It is expected that students will take the qualifying exam during their first or second semester of enrollment in the Ph.D. program; however, it is required that full-time students pass the qualifying examination no later than the end of the third semester of enrollment in their Ph.D. program. Students admitted in the direct track from B.S. to Ph.D. degree option are expected to take the qualifying exam by the end of their fourth semester of enrollment in the MAE graduate program.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research.

As the student progresses, his or her advisory and examining committee is charged with evaluating the student's competency in the specific area of study through the assessment of a dissertation proposal for the research to be completed and the evaluation of the student's plan of study and associated coursework. After these requirements are completed, the student is formally admitted to candidacy for the Ph.D. degree. Only at this point can a student be called a doctoral candidate; admission to the graduate program for the purpose of pursuing the Ph.D. degree is not equivalent to becoming a Ph.D. candidate. Doctoral candidates are allowed no more than five years to complete the remaining degree requirements after admission to candidacy. An extension of time can be obtained only by repeating the qualifying and candidacy examinations and meeting any other requirements specified by the student's advisory and examining committee.

A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research proposal and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows. The Ph.D. degree signifies that the holder has the competence to function independently at the highest level in the chosen field. Hence, the number of years involved in attaining or retaining competency cannot be readily specified, nor can an exact program of study be defined.

First Year

Fall	Hours	Spring	Hours
Core Course	3	Core Course	3
Math Course	3	Math Course	3
Additional Course	3	Additional Course	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
Additional Course	3	Additional Course	3
MAE 797	6	MAE 797	6
	9		**9**

Third Year

Fall	Hours	Spring	Hours
MAE 797	9	MAE 797	9
	9		**9**

Total credit hours: 54

Department of Mining Engineering

Degrees Offered

- Masters of Science, Mining Engineering (M.S.Min.E.)
- Doctor of Philosophy, Mining Engineering (Ph.D.)

Program Objectives

The objective of the master's of science in mining engineering (M.S.Min.E.) program is to equip students to investigate and develop solutions to advanced mining engineering problems. This program provides students the technical knowledge and research experience needed to address the most challenging contemporary issues within a specialized area of study.

Moreover, the objective of the Ph.D. program in mining engineering is to educate students to the highest level of technical and research performance within the minerals profession. Graduates of this program not only possess the requisite technical skills, but they also have the capability to actively contribute to the scholarly body of knowledge through independent research. These graduates pursue impactful careers in industry, government agencies, and academia.

Areas of Research

The expertise of the current faculty members broadly spans many traditional mining sub-disciplines. Active research areas include surface and underground mining, rock mechanics and ground control, mine health and safety, mineral/coal processing, mine pollution control, and mine ventilation.

FACULTY

CHAIR

- Syd S. Peng, Interim Chair, - Ph.D. (Stanford)

PROFESSORS

- Keith Heasley - Ph.D. (Colorado School of Mines)
  Numerical Modeling, Rock Mechanics
- Vladislav Kecojevic - Ph.D. (University of Belgrade)
  Surface Mining, Aggregates Production, Mine Materials Handling Systems

ASSOCIATE PROFESSOR

- Yi Luo - Ph.D. (West Virginia University)
  Surface Subsidence, Ventilation
- Felicia F. Peng - Ph.D. (West Virginia University)
  Coal Preparation, Coal Utilization, Process Control, Plant Design

ASSISTANT PROFESSOR

- Brijes Mishra - Ph.D. (West Virginia University)
  Theoretical and Experimental Rock Mechanics, Time Dependent Deformation of Rock and Salt, Mathematical Modeling in Rock Mechanics
- Aaron Noble - Ph.D. (Virginia Tech)
  Mineral Processing, Froth Flotation, Physical Separations

RESEARCH ASSISTANT PROFESSOR

- Mark Sindelar - Ph.D. (University of Pittsburgh)
  Mine power systems

Admission Requirements

The Masters of science in the mining engineering program admits students who have met the following requirements:

- A grade point average (GPA) of 3.0/4.0 or above from an ABET-accredited B.S.Min.E. program or its equivalent. Additionally, all Ph.D. applicants must have earned an M.S. degree in mining engineering with a GPA of 3.0 or higher. Transfer students must have at least a GPA of 3.0/4.0 for the graduate programs at similar institutions.
- International applicants must submit a GRE score and demonstrate proficiency in communicating English. For applicants whose native language is not English, this requirement may be fulfilled by a TOEFL-pBT test score of 550 or better, or an iBT score of 79, or an IELTS score of 6.5.
- At least three letters of recommendation, one of which must be from the applicant's previous thesis advisor or an academic equivalent. All letters of recommendation should evaluate the student's potential for performing independent, masters or doctoral-level research.

The same review process is used for M.S. and Ph.D. applications. In both cases, the completed application packets are circulated to the graduate faculty. Initial evaluations consider whether:

1. The applicant should or should not be accepted; and
2. The reviewing faculty member is or is not willing to provide support.

If multiple positive responses are produced, the assignment of the potential graduate student is resolved at a meeting of the faculty according to specific needs and interests.

Curriculum in Masters of Science in Mining Engineering

A candidate for the M.S. degree in mining engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Mining Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		
A minimum of 60% of course must be from 500 level or above		
Select from the following based on degree path		24
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799		
Thesis Option - 6 hours		
MINE 697	Research (6 hours)	6
Written Research Proposal		
Thesis		
Final Oral or Written Examination		
Total Hours		**30**

[*] Students who do not hold a baccalaureate degree in mining engineering are required to take a set of undergraduate mining engineering courses above and beyond the minimum coursework requirements.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.Min.E degree program that completes degree requirements in two years is as follows.

First Year

Fall	Hours	Spring	Hours
Course	3	Course	3
Course	3	Course	3
Course	3	Course	3
	9		**9**

Second Year

Fall	Hours	Spring	Hours
Course	3	Course	3
MINE 697	6	MINE 697	6
	9		**9**

Total credit hours: 36

Curriculum in Doctor of Philosophy – Mining Engineering

A candidate for the Ph.D. degree with a major in mining engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Mining Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in mining engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of mining engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]		

Research	24
MINE 797 Research	
Select from the following based on degree path:	18
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799	
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**42**

*   Students who do not hold a baccalaureate degree in mining engineering are required to take a set of undergraduate mining engineering courses above and beyond the minimum coursework requirements.

       A minimum of eighteen hours of coursework and twenty-four hours of independent research beyond an M.S. degree are required.

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. . All mining engineering students must pass the written qualifying examination within three semesters since registered in Mining Engineering graduate program. This examination is designed to assess the basic competency of students in the mining engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research. The candidacy exam consists of a written qualifying examination and dissertation proposal defense. The proposal must be approved by the student's AEC at least one semester prior to/ the final oral examination. The written qualifying exam includes material from the eight areas of specialization.

A student who has successfully completed all coursework, passed the qualifying examination, and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidates must prepare a dissertation and pass the final oral examination (defense) administered by their AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research proposal and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in four years is as follows.

First Year			
Fall	**Hours**	**Spring**	**Hours**
Course	3	Course	3
Course	3	Course	3
MINE 797	3	MINE 797	3
	9		**9**
Second Year			
Fall	**Hours**	**Spring**	**Hours**
Course	3	Course	3
MINE 797	6	MINE 797	6
	9		**9**

Third Year			
Fall	**Hours Spring**		**Hours**
MINE 797	9 MINE 797		9
	9		**9**
Fourth Year			
Fall	**Hours Spring**		**Hours**
MINE 797	9 MINE 797		9
	9		**9**

Total credit hours: 72

Department of Petroleum and Natural Gas Engineering

Degrees Offered

- Masters of Science, Petroleum and Natural Gas Engineering (M.S.P.N.G.E.)
- Doctor of Philosophy, Petroleum and Natural Gas Engineering (Ph.D.)

The Petroleum and Natural Gas Engineering (PNGE) graduate programs are designed for students who have already completed a basic petroleum engineering curriculum.

Degree Programs

The Department of Petroleum and Natural Gas Engineering admits students to the following degree programs: master of science in petroleum and natural gas engineering (M.S.P.N.G.E.) and petroleum and natural gas engineering major under the college of engineering and mineral resources' interdisciplinary doctor of philosophy (Ph.D.). Students in these programs must comply with the rules and regulations as presented in the general requirements for graduate work in the College of Engineering and Mineral Resources.

Program Objectives

The objective of the Petroleum and Natural Gas Engineering (PNGE) graduate programs is to educate and train men and women who will be capable of performing at the highest levels of the petroleum and natural gas engineering profession. The programs provide students with the advanced technical knowledge and engineering skills needed by the oil and gas industry in the state, the nation, and the world. Moreover, the programs will make students competent to perform independent research and will prepare them to be the future providers of high quality education in petroleum and natural gas engineering. Graduates have the opportunity to enter all phases of the oil and natural gas industry, government agencies, and academia in meaningful and important jobs.

Student Learning Outcomes

- Graduates will have in-depth knowledge of petroleum and natural gas engineering principles and applications to function effectively in their profession or continue their education.
- Graduates will have the ability to perform independent research to solve engineering and scientific problems encountered in their profession.
- Graduates will have in-depth petroleum and natural gas scientific and engineering knowledge to provide high quality education in petroleum and natural gas engineering.

Areas of Research

- Development of the Unconventional Oil and Gas Resources
- Drilling and Completion
- Reservoir Engineering
- Formation Evaluation
- CO_2 Sequestration and Enhanced Oil Recovery
- Reservoir Simulation
- Artificial Intelligence

FACULTY

CHAIR

- Samuel Ameri - M.S.Pet.E., P.E. (West Virginia University)
  Formation Evaluation

PROFESSORS

- Kashy Aminian - Ph.D. (University of Michigan)
  Natural Gas Engineering, Reservoir Engineering
- Shahab Mohaghegh - Ph.D. (Pennsylvania State University)
  Intelligent Systems

ASSOCIATE PROFESSOR

- H. Ilkin Bilgesu - Ph.D., P.E. (Pennsylvania State University)
  Drilling Engineering

ASSISTANT PROFESSOR

- Ebrahim Fathi - Ph.D. (University of Oklahoma)
  Unconventional Gas Recovery
- Ali Takbiri Boroujeni - Ph.D. (Louisina State University)
  Enhaned Oil Recovery

TEACHING ASSISTANT PROFESSOR

- Fatemeh Belyadi - Ph.D. (West Virginia University)
  Reservoir Engineering

ADJUNCT PROFESSOR

- Alan Brannon - Ph.D. (West Virginia University)
  Natural Gas Engineering
- Pramod Thakur - Ph.D. (Pennsylvania State University)
  Coalbed Methane Development

Masters Admission

A candidate for the M.S.P.N.G.E. program must meet the following requirements:

- B.S. degree in engineering from an ABET-accredited, or an internationally-recognized engineering program or equivalent with a grade point average (GPA) equal to, or greater than, 3.0 (on a 4.0 scale) (Applicants who cannot meet this condition may be considered for provisional admission.)
- International students must demonstrate proficiency in communicating in English (a minimum TOEFL score of 550, or IBT score of 79, or IELTS score of 6.5).
- At least three recommendation letters (One letter must be from the applicant's academic advisor or equivalent.)

Doctoral Admission

A candidate for the degree of Doctor of Philosophy (Ph.D.) must comply with the rules and regulations as outlined in the general requirements for graduate work in engineering and the specific requirements stated in the departmental guidelines.

A candidate for the degree of Doctor of Philosophy (Ph.D.) must meet the following requirements:

- B.S. or M.S. degree in petroleum engineering from an ABET-accredited, or an internationally-recognized petroleum engineering program or equivalent with a grade point average (GPA) equal to, or greater than, 3.0 and 3.2, respectively
- A score of at least seventy-fifth percentile for Graduate Record Examination (GRE) quantitative analysis
- International students must demonstrate proficiency in communicating in English (a minimum TOFEL Score of 550, or IBT Score of 79, or IELTS Score of 6.5).
- At least three recommendation letters (One letter must be from the applicant's previous thesis advisor or an academic equivalent.)

Curriculum in Master of Science in Petroleum and Natural Gas Engineering

A candidate for the M.S. degree in petroleum and natural gas engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Petroleum and Natural Gas Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements	
A minimum of 60% of courses must be from 500 level or above	
All students are required to take Graduate Seminar (PNGE 796) for each semester enrolled.	3
PNGE 796 Graduate Seminar	
A maximum of three credit hours each of Graduate Seminar (PNGE 796) and Independent	
Study (PNGE 695) can be counted towards meeting the coursework requirements.	
Any PNGE course 400-799	15
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, IENG, IH&S, GEOL, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 400-799	6
Complete 1 of the following options:	6-9
Thesis Option - 6 hours	
PNGE 697 Research (6 hours)	
Written Research Proposal	
Thesis	
Final Oral or Written Examination	
Problem Report Option - 9 hours	
Complete 6 additional hours of coursework	
PNGE 697 Research (3 hours)	
Written Research Proposal	
Formal written report or professional report/paper	
Final Oral or Written Examination	
Total Hours	**30-33**

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student's AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Thesis Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S.P.N.G.E degree program that completes degree requirements in one and half years is as follows.

First Year

Fall	Hours	Spring	Hours
PNGE 796	1	PNGE 796	1
Course	3	PNGE 697	3
Course	3	Course	3
Course	3	Course	3
	10		**10**

Second Year

Fall	Hours
PNGE 796	1
PNGE 697	3
Course	3
Course	3
	10

Total credit hours: 30

Curriculum in Doctor of Philosophy - Petroleum and Natural Gas Engineering

A candidate for the Ph.D. degree with a major in petroleum and natural gas engineering must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Petroleum and Natural Gas Engineering Department.

Program Requirements

The doctor of philosophy degree with a major in petroleum and natural gas engineering is administered through the college's interdisciplinary Ph.D. program. The research work for the doctoral dissertation must show a high degree of originality on the part of the student and must constitute an original contribution to the art and science of petroleum and natural gas engineering.

All Ph.D. degree candidates are required to perform research and follow a planned program of study. The student's research advisor, in conjunction with the student's Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student's needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements [*]	
All students are required to take Graduate Seminar (PNGE 796) for each semester enrolled.	
A maximum of three credit hours each of Graduate Seminar (PNGE 796) and Independent Study (PNGE 795) can be counted towards meeting the coursework requirements.	
Research	24
PNGE 797 Research	
Select the following based on degree path:	
Any BIOM, CE, CHE, CHEM, CPE, CS, EE, GEOL, IENG, IH&S, MAE, MATH, MINE, PNGE, PHYS, SAFM, SENG, or STAT courses 500-799	24
Examinations	
Qualifying Exam	
Candidacy Exam	
Final Exam	
Total Hours	**48**

Examinations

QUALIFYING EXAM

All students must take and pass a written qualifying examination. Normally, the qualifying examination is given no later than one semester after completion of eighteen credit hours toward the doctoral degree. This examination is designed to assess the basic competency of students in the petroleum and natural gas engineering field to determine whether or not they have sufficient knowledge to undertake independent research.

CANDIDACY EXAMINATION

In order to be admitted to candidacy, the student must pass a candidacy exam, which is designed to evaluate the student's overall ability to engage in high-level research. A student must pass the qualifying examination prior to taking Candidacy Exam. The Candidacy Exam is administered by the student's AEC and requires preparation and defense of the dissertation research proposal. The Candidacy Exam may also include testing on material in related fields, as deemed necessary by the AEC.

A student who has successfully completed all coursework, passed the qualifying and candidacy exam and successfully defended the research proposal is defined as one who is a candidate for the Ph.D. degree.

FINAL EXAMINATION

At the completion of the dissertation research, candidate must prepare a dissertation and pass the final oral examination (defense) administered by his/her AEC.

In order to complete the Ph.D. requirements, a student must pass a final oral examination on the results embodied in the dissertation. This examination is open to the public and, in order to evaluate critically the student's competency, may include testing on material in related fields, as deemed necessary by the AEC. In addition, since the Ph.D. degree is primarily a research degree that embodies the results of an original research work and represents a significant contribution to scientific literature, the student must submit a manuscript on this research to the AEC.

Suggested Plan of Study

It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical doctoral degree program that completes degree requirements in three years is as follows.

First Year

Fall	Hours	Spring	Hours
PNGE 796	1	PNGE 796	1
Course	3	Course	3
Course	3	Course	3
PNGE 797	2	PNGE 797	2
	9		**9**

Second Year

Fall	Hours	Spring	Hours
PNGE 796	1	PNGE 796	1
PNGE 797	2	PNGE 797	2
Course	3	Course	3
Course	3	Course	3
	9		**9**

Third Year

Fall	Hours	Spring	Hours
PNGE 796	1	PNGE 796	1
PNGE 797	8	PNGE 797	8
	9		**9**

Total credit hours: 54

Law

WVU Law students have a passion for justice, an interest in how our legal system contributes to society, and a desire to learn a discipline that is both structured and creative.

West Virginia University College of Law provides students a unique opportunity to attend a small public law school within a nationally recognized research university. Here you can join diverse students from around the globe who come together in the beautiful mountains of West Virginia to experience public legal education with the intimacy of a fine private law school. Small class sizes and an excellent faculty-student ratio tell part of the story, but not all.

What makes the WVU Law experience different is its culture of excellence. Our faculty, staff, and students are committed to creating a rigorous, inclusive, exciting, and supportive educational community in which individuals can pursue their personal vision of success in the legal profession.

Our faculty members are outstanding teachers, scholars, and leaders in legal education. What distinguishes our faculty from others, however, is the remarkable commitment they have in mentoring students to help them achieve individual goals. The faculty can be found supervising student articles for publication, assisting in obtaining prestigious federal judicial clerkships, or providing guidance for student-led symposia exploring cutting-edge and relevant topics. In addition, whether our faculty members teach corporate securities or civil disobedience, each one exemplifies the duty of a lawyer to serve the public interest.

To fulfill its commitment to individual student success and to improving the profession by producing the leaders of the future, the West Virginia University College of Law has a rapidly developing curriculum that combines the best of traditional legal education with new courses and opportunities necessary to practice law in a global economy in the 21st century.

About the College of Law

Misson Statement: Preparing 21st century lawyers and leaders to serve the public, government, and business—both locally and globally—while focusing on justice, ethics, professionalism, and service in a diverse, vibrant, and respectful community.

Established: 1878

The West Virginia University College of Law was accredited by the AALS in 1914 and by the ABA in 1923.

The West Virginia University College of Law is fully approved by the American Bar Association Council of the Section of Legal Education and Admissions to the Bar.

Since 1952, the ABA Council of the Section of Legal Education and Admissions to the Bar has been approved by the U.S. Department of Education as the recognized national agency for the accreditation of professional schools of law.

Further information as to the Standards and Rules of Procedure for the Approval of Law Schools by the American Bar Association may be obtained from the Section of Legal Education and Admissions to the Bar, 750 North Lake Shore Drive, Chicago, IL 60611, Phone: (312) 988-6738, Fax: (312) 988-5681, and website: http://www.abanet.org/legaled.

ADMINISTRATION

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  Dean and Professor of Law

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- Anne M. Lofaso - J.D. (University of Pennsylvania); Ph.D. (University of Oxford)
  Associate Dean for Faculty Research and Development, Professor of Law
- John E. Taylor - J.D. (University of North Carolina); Ph.D. (Stanford University)
  Associate Dean of Academic Affairs, Professor of Law

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- Amber Brugnoli - J.D. (West Virginia University)
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  College of Law

FINANCIAL AID

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- Charles R. DiSalvo - J.D. (University of Southern California)
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  President Emeritus, West Virginia University (1995-2007)
- David L. Krech - J.D. (Cornell University)
  Director of Legal Research and Writing; Director of Appellate Advocacy
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  Associate Dean for Faculty Research and Development
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  Steptoe and Johnson Professor of Law and Technology; Director of the Clinical Law Program
- Patrick C. McGinley - J.D. (Duke University)
  Charles H. Haden II Professor of Law
- James A. McLaughlin - J.D. (Ohio State University)
  Robert L. Shuman Professor of Law
- Dale P. Olson - J.D. (University of Minnesota); LL.M. (Yale University)
- Thomas O. Patrick - J.D. (West Virginia University)
- Alison Peck - J.D. (Yale Law School); LL.M. (University of Arkansas)
- William Rhee - J.D. (Northwestern University)
- John E. Taylor - J.D. (University of North Carolina); Ph.D. (Stanford University)
- Hollee S. Temple - J.D. (Duke University)

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  Deputy Director of the Clinical Law Program; Chair of the West Virginia Innocence Project
- Valarie Blake - J.D. (University of Pittsburgh)
- Atiba R. Ellis - J.D. (Duke University)
- Kendra Fershee - J.D. (Tulane University)
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- Shine (Sean) Tu - J.D. (University of Chicago); Ph.D. (Cornell University)
- James Van Nostrand - J.D. (University of Iowa); LL.M. (Pace University)
  Director of the Center for Energy and Sustainable Development
- Kirsha Trychta - J.D. (Duquesne University)
  Director of Academic Excellence
- Elaine W. Wilson - J.D. (Boston University)

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- Jared Anderson - J.D. (Catholic University of America)
  Supporting Land Use Attorney
- Christy Burnside DeMuth - M.S. (Indiana University of Pennsylvania)
  Land Use Planner
- Nathan Fetty - J.D. (West Virginia University)
  Managing Attorney
- Katherine Garvey - J.D. (University of Missouri-Kansas City); LL.M. (Vermont Law School)
  Director of the Land Use and Sustainable Development Clinic
- Jason Walls - J.D. (West Virginia University)
  Land Conservation Attorney

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  Co-Director of the Immigration Law Clinic
- Barton Z. Cowan - J.D. (Harvard University)
- Larry Starcher - J.D. (West Virginia University)
- Suzanne M. Weise - J.D. (West Virginia University)
  Director of the Child and Family Law Clinic
- Joshua Weishart - J.D. (University of California)

PROFESSORS EMERITI

- Forest J. Bowman - J.D. (West Virginia University)
  Jackson and Kelly Professor of Law Emeritus
- Franklin D. Cleckley - J.D. (Indiana University); LL.M. (Harvard University)
- John Fisher - J.D. (West Virginia University)
  William J. Maier, Jr. Dean Emeritus; Robert M. Steptoe and James D. Steptoe Professor of Law Emeritus
- Robert Lathrop - LL.M. (New York University)

Degree Designation Learning Goals
DOCTOR OF JURISPRUDENCE (JD)

The J.D. program forms students' professional identities as lawyers and provides students with the core legal knowledge and practical skills to pass the bar exam and to serve their clients competently and ethically.

In developing professional identity and values, we seek to produce students committed to professional excellence, justice, leadership, public service, global engagement, and lifelong learning. Our graduates are trained to be legal problem solvers who possess a solid grasp of the substantive and procedural law of their chosen fields, understand their professional responsibilities and ethical obligations, and have the varied skills needed for successful practice, including: legal analysis, legal writing, legal research, factual investigation, client counseling, negotiation, drafting, and advocacy.

MASTER OF LAWS (LLM)

Our LL.M. programs offer post-J.D. students an opportunity to deepen their subject-matter expertise and skills in particular areas of the law.

Energy and Sustainable Development Law

The LL.M. in Energy & Sustainable Development Law provides lawyers with a deep and broad knowledge of law and policy in the critical areas of energy, environmental protection, and sustainable development. Students will master these areas through course work, writing projects, and a variety of experiential learning opportunities. LL.M. graduates will have the skills necessary to work as lawyers serving energy companies, investors, utilities, manufacturing companies, lawmakers, policymakers, regulators, land use professionals, and environmental organizations.

Forensic Justice

The LL.M. in Forensic Justice provides working lawyers with a solid grounding in the theory and practice of the forensic sciences and their application in the courts. LL.M. students will gain an understanding of scientific method and of critical areas of forensic science including biological and chemical evidence, impression and trace evidence, and statistics and probability. In addition, students will gain practical experience in working with this evidence in a courtroom setting. The degree will be especially valuable for prosecutors and criminal defense attorneys, enabling those on both sides of the criminal process to ensure that forensic science serves the ultimate goal of justice.

ADMISSIONS - DOCTOR OF JURISPRUDENCE
FIRST-TIME ADMISSIONS

The following are the essential requirements to apply to law school:

- A bachelor's degree from an accredited four-year institution
- Completion of the Law School Admissions Test (LSAT)
- Application for admission / Credential Assembly Service (CAS) report

For additional information, please visit the College of Law Admissions (http://www.law.wvu.edu/admissions) homepage.

TRANSFER ADMISSIONS

A transfer student is a student who has taken some or all of his or her first-year curriculum at another law school and is admitted to earn a J.D. degree at the West Virginia University College of Law. The College of Law accepts transfer students only from other law schools accredited by the American Bar Association. The College will not accept transfer applicants from law schools that do not award letter grades (or their numerical equivalent) during the first year. All candidates who transfer to the College of Law from another ABA- accredited law school must satisfactorily complete courses aggregating at least forty-five credit hours at the College of Law. In addition, the last thirty credit hours for transfer students must be earned at the College of Law.

The College of Law will accept transfer credits only for courses where the student earned a grade of C or better. In exceptional circumstances, the Associate Dean for Academic Affairs may approve the transfer of a small number of pass/fail credits. The Associate Dean will determine the total number of credit hours that will transfer; only in exceptional cases will credit be given for more than thirty-two credit hours. The Associate Dean will also determine whether particular courses taken at another law school satisfy specific course requirements at the College of Law. Graded credits at other

law schools that transfer to the College of Law will be entered on the student's College of Law record as pass/fail credits and hence will not affect the student's College of Law grade point average.

In order to graduate, all transfer students must obtain a cumulative grade point average of 2.30 or better on courses taken at the College of Law. Transfer students are not eligible for election to Order of the Coif at the West Virginia University College of Law.

The deadline for transfer applications is **July 1**. The West Virginia University College of Law has established the following guidelines for the Admissions Committee to use in reviewing transfer applications.

- In reviewing applications for advanced standing, the Admissions Committee will give preference to West Virginia residents.
- Applicants must have completed at least one academic year of studying or its equivalent at the institution from which transfer is being sought. For admission purposes, one year of study or its equivalent is equal to a minimum of twenty-eight credit hours of coursework. The twenty-eight credit hours should ideally include the following coursework, but we will consider transfer applicants who have a substantial number of the listed courses:

1. Civil Procedure I & II
2. Contracts I
3. Torts I
4. Constitutional Law
5. Criminal Law
6. Property I

- Applications from students seeking to transfer from schools that are not accredited by the ABA will not be accepted under any circumstances. (The applicant may apply as a first- year student.)
- Applications for transfer to the College of Law for the second year will be considered by the Committee on the basis of the following:

1. The size of the returning second-year class.
2. The applicant's grades and/or class rank at her/his law school. Applicants from law schools who do not provide either a GPA or class rank for 1L students will not be considered for transfer.
3. Whether the applicant would have been admitted to the College of Law in the first year had the applicant applied.
4. The academic strength of the law school attended by the applying student, including whether it is accredited by the AALS. (ABA accreditation is required.)
5. Recommendation(s) from a law professor in whose class the applicant was enrolled. (At least one is required.)
6. Residency of the applicant.
7. All of those facts, performance records, recommendations, and other matters that the Committee normally considers for applicants to the first-year class, including everything that might implicate the student's fitness for the practice of law.
8. Any other activities and experiences of the applicant occurring since the student began law school.
9. Any other information regarding the applicant that may be considered relevant to success in law school.

- In addition to the aforementioned criteria, applicants must meet the requirements set forth below.

1. Applicants must conform to all other relevant criteria relating to first-year entering students as found in the admission policy of the West Virginia University College of Law.
2. Applicants must submit a certified official transcript of their first-year law school grades and class ranking. If class ranking from the law school is unavailable, the applicant must submit sufficient information about grades from the law school attended to make a reasonable estimation of class ranking. No one will be admitted for transfer without class rank (or its reasonable equivalent) based on a full year of law school attendance.
3. Applicants must provide a letter of good standing from the Dean of the law school (or his or her designee) from which the student is transferring.
4. Applicants must submit a copy of their most recent LSAC Credential Assembly Service (CAS) report including a certified transcript of undergraduate school grades and the LSAT writing sample.
5. Applicants must fully explain any ethical or other problems with admission that may appear in the file.
6. Applicants must submit the completed file to the Admission Office by July 1 in order to be considered for transfer.

- In considering applications for admission from individuals with credits or degrees from foreign institutions, the Admissions Committee shall have the authority to make any of the below stated decisions with regard to the applicant:
1. The Committee may admit the applicant as a first-year entering student.
2. The Committee may admit the applicant with advanced standing by granting credit for specific course work completed at another institution. (AALS executive Committee Regulations 2.8 and 2.9 prescribe limitations on the award of advanced standing.)
3. The Committee may admit the applicant as a special student for the purposes of auditing courses or transferring course work to another institution.
4. The Committee may deny admission to the applicant.

TRANSIENT ADMISSIONS

The West Virginia University College of Law accepts transient students only from other law schools accredited by the American Bar Association. A transient student is one who has taken or will take most of his or her work toward a J.D. at another ABA-approved law school and will earn a degree from that institution. Transient students are permitted to earn some credits toward that J.D. while in temporary residence at the West Virginia University College of Law, provided that they obtain permission from their school and the Associate Dean for Academic Affairs.

ADMISSIONS - LL.M. (MASTER OF LAWS)

ENERGY AND SUSTAINABLE DEVELOPMENT

WVU Law's LL.M. in Energy and Sustainable Development Law will be a source for a high-quality professional legal education and a home for thought leaders in the areas of energy and sustainable development.

Minimum admission requirements for the program are as follows:

- A J.D. from an ABA-accredited school (or foreign equivalent, as determined by the College of Law in accordance with ABA guidelines).
- A J.D. (or equivalent) grade point average of at least a 3.0 (on a 4.0 scale) or other demonstrated indicia of likelihood of success.
- A demonstrated interest in or commitment to the fields of energy and/or sustainable development.

For additional information, please visit the LL.M. in Energy & Sustainable Development Law (http://law.wvu.edu/energy-llm) homepage.

FORENSIC JUSTICE

Minimum admission requirements for the LL.M. in Forensic Justice are as follows:

- A J.D. from an ABA (American Bar Association) accredited school (or foreign equivalent, as determined by WVU Law in accordance with ABA guidelines).
- A grade point average of at least a 3.0 (on a 4.0 scale) or other demonstrated indicia of likelihood of success.
- A demonstrated interest or commitment to the fields of science, forensic evidence, and law.

Applicants may include newly graduated J.D. students, professionals (prosecutors, defense attorneys, judges) returning for study after years of practice, or qualified international students.

For additional information, please visit the LL.M. in Forensic Justice (http://law.wvu.edu/forensic-llm) homepage.

Student Catalog Policy

All students at West Virginia University College of Law must abide by the content of the student catalog and the Student Code of Professional Responsibility. You are responsible for knowing and understanding the rules and policies contained in those documents. You are governed by the rules and policies of the catalog for the current academic year, including any addenda to the catalog published on the College of Law's website. The student catalog is revised each academic year. Students will be notified of any significant change in school policies during the academic year. You may consult the Assistant Registrar for the College of Law and/or the Associate Dean for Academic Affairs at any time for advice as to any policy contained in the student catalog.

Janet Long Armistead - *Assistant Dean for Student Affairs*

Frequently Asked Questions

- **What academic honors can I earn while in law school?**

  See 'Academic Policies and Procedure - Honors' of the College of Law catalog for additional information.

- **What does it mean to be on academic probation?**

  See 'Academic Policies and Procedure - Academic Standing - Academic Probation & Dismissal' section of the College of Law catalog.

- **What student organizations can I join at the law school?**

  Many College of Law organizations welcome all students who are interested, while others require students to be elected or chosen. See ' Student Organizations, Guidelines, and Services - College of Law Organizations - Recognized College of Law Student Organizations' section of the College of Law catalog or visit the 'Student Organizations (http://law.wvu.edu/student-life/student-orgs)' homepage.

- **What is the law school's grade point average system?**

  See the 'Academic Policies and Procedure - Grading Information and Procedures - Grades' section of the College of Law catalog.

- **How can I change my address with WVU so I will receive my financial aid check?**

Addresses are updated online via MIX / STAR (https://mix.wvu.edu/cp/home/loginf). Once there, click on the 'Personal Information' link. Also, visit the 'Current Students (http://registrar.wvu.edu/current_students/#add)' link on the OUR homepage (http://registrar.wvu.edu) for additional information.

- **What is DegreeWorks?**

  DegreeWorks (http://registrar.wvu.edu/dw) is an online check sheet (audit) for students to review and monitor their progress toward degree completion. It organizes academic coursework into blocks of requirements to help easily identify courses completed and what courses are still needed in order to complete your degree. For additional information, including how to log in to DegreeWorks, see the 'Academic Policies and Procedures - Graduation' section of the College of Law catalog.

- **Whom should I see if I have a question regarding academic matters at the College of Law?**

  For academic matters, please see the Assistant Registrar for the College of Law (http://www.law.wvu.edu/faculty-staff/administration) or the Associate Dean for Academic Affairs (http://www.law.wvu.edu/faculty-staff/administration).

- **Whom should I see if I have a non-academic or personal matter that pertains to my law school experience?**

  For such matters, see the College of Law's Assistant Dean for Student Affairs.

- **What is my professor's phone number, e-mail address, etc.?**

  See the 'Faculty (http://law.wvu.edu/faculty-staff)' link on the College of Law (http://www.law.wvu.edu) homepage. Many professors also list their contact information on their class syllabi.

- **Whom do I call if I am sick and must miss class?**

  See the 'Academic Policies and Procedures - Academic Policies - Missing Class Due to Illness' section of the College of Law catalog. Also, for treatment information, see the 'Student Organizations and Services - University Services - Health Services' section of the College of Law catalog.

- **What are midterm and/or final exam numbers?**

  Midterm and final exam numbers are assigned to students each semester by the Assistant Registrar for the College of Law. In many classes, these numbers are used on papers and exams in place of student names so that the professors can grade anonymously. Students are routinely notified of information concerning midterm exam and final exam numbers each semester.

- **If I'm traveling for competitions with the College of Law, what do I do?**

  If the completion has been approved as part of the student organization's budget, then check 'Student Orgs, Guidelines, and Services - Student Travel' in the College of Law catalog for instructions for going online for individual travel approval, how to provide original receipts on your return for reimbursement, etc. Student travel expenses must be approved in advance in order to be reimbursed.

- **How do I register for classes?**

  Registration for classes occurs in STAR. Students are routinely notified of information concerning registration each semester. For additional information, please review the Student Services Guide, located on the College of Law website on the 'Course Schedule and Registration Information' link under the 'Academics' tab.

- **Where can I find guidance about choosing courses?**

  The College of Law J.D. curriculum is separated into required courses and electives courses. For required courses, see 'Academic Programs - Doctor of Jurisprudence - First-Year Curriculum & Required Courses after the First-Year Curriculum.' For elective courses, the College of Law publishes a 'Curriculum Opportunities and Options (http://www.law.wvu.edu/r/download/184421)' guide. This guide organizes courses into specific career tracks.

- **When are classes canceled, and how do I find out?**

  It is rare that the College of Law will cancel classes or activities due to weather or other events. Decisions regarding class cancellations are made at the university level by the Provost's Office. In the event classes are canceled or delayed because of weather or other reasons, the university will issue a notice by morning. If you receive no notice, assume that there are no cancellations for that day. Sign up to receive these notices via phone by going to the 'WVU Alert' homepage (http://emergency.wvu.edu/alert).

- **Where can I find the Code of Professional Responsibility (Honor Code)?**

  See the 'Professional Responsibility - WVU College of Law Student Code of Professional Responsibility' section of the College of Law catalog.

- **Where can I find out about careers, jobs, and summer internships?**

  See the 'Student Organizations and Services - College of Law Services - Meredith Career Services Center' section of the College of Law catalog or visit the College of Law's Meredith Career Services Center (http://law.wvu.edu/career-services) homepage.

- **What do I need to do in my 3L year to apply to take the bar exam the following summer?**

In the fall of your 3L year, visit the bar examiners homepage in the state where you plan to practice. The application must be started and finished in a timely manner to be able to take the exam in the summer. Some applications are due in the fall of the 3L year. The application to practice includes a character and fitness review.

- **What do I need to do in my 3L year to prepare to take the bar exam?**

  (1) Take the Multistate Professional Responsibility Exam (MPRE) in the spring of second year or fall of third year (after you have taken the class in Professional Responsibility), (2) determine what is going to be on your state's July exam, and (3) explore early and summer prep programming that will prepare you for that exam (e.g. classes at the law school and state-specific commercial programming for the summer). In short, choose a program of preparation, and realize that your program of preparation could begin as early as the 6th semester of law school if you choose to participate in the school's early-start bar preparation class.

- **Upon graduation, how do I assure that I pass the exam the first time I take it in July?**

  Focus on and complete the summer bar exam preparation program of your choosing. Do not work unless it is absolutely necessary because studying for the exam is a full-time job.

Academic Programs

A. DOCTOR OF JURISPRUDENCE

1. Curriculum Requirements
2. First-Year Curriculum
3. Required Courses after the First-Year Curriculum
4. Upper-Level Electives
5. Areas of Emphasis
6. Part-Time Program

B. DUAL-DEGREE PROGRAMS

1. Master's of Business Administration
2. Master's of Public Administration

C. LL.M. - MASTER OF LAWS

1. Energy and Sustainable Development Law
2. Forensic Justice

A. DOCTOR OF JURISPRUDENCE

A.1 CURRICULUM REQUIREMENTS

Students at the West Virginia University College of Law must earn 91 credit hours with a cumulative grade point average (GPA) of at least 2.30 in order to graduate. Students must maintain a cumulative GPA of at least a 2.30 after the second semester to remain in good academic standing. The first-year curriculum is a fixed set of courses taken by all students. Students are largely free to shape their own courses of study during the last two years of law school, subject to a small number of upper-level requirements.

Minimum GPA of 2.3 or higher required.

First-Year Required Courses		
LAW 638	Legislation and Regulation	3
LAW 641	Introduction to Legal Research	1
LAW 700	Legal Analysis, Research and Writing 1	2
LAW 703	Contracts 1	4

LAW 705	Criminal Law	3
LAW 706	Civil Procedure: Jurisdiction	2
LAW 707	Property	4
LAW 709	Torts 1	4
LAW 711	Legal Analysis, Research and Writing 2	2
LAW 722	Civil Procedure: Rules	3
LAW 725	Constitutional Law 1	4
Upper-Level Requirements		
LAW 715	Appellate Advocacy	2
LAW 742	Professional Responsibility	3
Seminar (any 688, 689, or 794 course)		2-3
Perspective		2-3
Capstone		4-14
Electives (credit may vary - used to reach minimum of 91 hours for the degree)		46
Total Hours		**91**

A.2 FIRST-YEAR CURRICULUM

The first-year curriculum is a required set of courses designed by the faculty to give new law students an introduction to the fundamentals of legal practice. You will be assigned to a section of each required course. The first-year curriculum covers three areas:

- **Private Law** governs the legal relationships and the resolution of disputes among private persons and entities. The Private Law courses you will take are Torts (civil wrongs), Contracts, and Property.
- **Public Law** concerns governmental regulation of private persons and entities. The Public Law courses you will take are Criminal Law, Legislation & Regulation, and Constitutional Law.
- **Practice** courses teach procedural law and the skills of legal research, reasoning, and writing. The Practice courses you will take are Civil Procedure (both Jurisdiction and Rules), two semesters of Legal Reasoning, Research, and Writing, and Introduction to Legal Research.

Legal Reasoning, Research, and Writing (four credits). First-year students must pass both LRRW I and LRRW II with an average grade of C (2.0) or better over the two semesters in order to satisfy the Legal Reasoning, Research, and Writing (LRRW) course requirement. The vast majority of students will satisfy the requirement by making grades of C or better in both semesters of LRRW. However, a student who makes a C- in one semester must make a C+ or better in the other semester to obtain a C average; a student who makes a D+ in one semester must make a B- or better in the other semester to obtain a C average; a student who makes a D in one semester must make a B or better in the other semester to obtain a C average. A student who fails one or both semesters of LRRW must repeat the course.

Students who fail to obtain an average of C or better in the first-year LRRW program have a second opportunity to satisfy the LRRW requirement in a second taking of the two-semester, first-year sequence of LRRW I and LRRW II. (In some years, an LRRW III class will be offered in the fall semester for such students to take in lieu of retaking LRRW I and II.) Students who fail to make a C or better in their second attempt to satisfy the LRRW requirement will be dismissed from the College of Law. For students who make a C or better on the second attempt, both grades will count in the student's law school GPA, but the student will receive only four total hours of credit toward law school graduation.

No student will be allowed to drop the required first-year LRRW course. Students needing to decelerate during the first year of law school must drop another required course. There is one possible exception to this policy: if a student receives an F in LRRW I, the student may drop LRRW II with the permission of the Associate Dean for Academic Affairs. Part-time students must take LRRW during their first year of law school.

Successful completion (an average grade of C or better) of the first-year LRRW program is a prerequisite for taking Appellate Advocacy, any seminar, or any clinic. This prerequisite may not be waived. Students will receive a detailed policy handbook at the beginning of the LRRW course; all policies will be in effect for the duration of the course.

A.3 REQUIRED COURSES AFTER THE FIRST-YEAR CURRICULUM

Seminar Requirement (two-three credits, depending on length of class meetings and paper length) from a menu of seminars. Seminars are specifically noted by the letters "Sem" in the course title and are numbered as "LAW 688, 689 or 794." Seminars have a common structure: small-class discussions geared toward the production of a substantial (i.e. at least 8,000 words [~ twenty-five pages]) written product supported by extensive research. Typically, the research seminar aims at the production of a law-review style research paper of publishable quality. Seminars may aim at other written products, such as draft legislation or jury instructions, so long as these products are accompanied by papers urging their adoption by the appropriate lawmakers. Enrollment is limited to fifteen students in each seminar. Two-hour seminar courses must meet as a group for no less than 10 weeks and no less than 110 minutes per week. Three-hour seminar courses must meet as a group for no less than 10 weeks and no less than 165

minutes per week. Students must obtain a grade of C or better to satisfy the seminar requirement. Independent studies and externships do not satisfy the seminar requirement.

Perspective Requirement. The perspective requirement reflects the College of Law's conviction that legal education should expand students' horizons by connecting their studies to the traditions of the liberal arts (i.e., the humanities, social sciences, and natural sciences). Perspective courses, therefore, examine law and lawyers primarily from points of view that are significantly different from the doctrinal and policy analysis taught in standard upper-level courses on various areas of practice. Perspective courses look across doctrinal boundaries and engage students in conversations about the relationships between law and other disciplines; explore the nature of the American legal system by contrasting it with other legal systems; and discuss the ways in which law and lawyers both shape and are shaped by the liberal arts and wider culture.

Students must take one perspective course in order to graduate. Some seminars satisfy the perspective requirement, but students cannot count one perspective seminar as simultaneously satisfying both the perspective and seminar requirements. (In other words, there is no "double-dipping" on the perspective and seminar requirements.) This means that a student can satisfy the perspective *and* seminar requirements by

    (a) taking one perspective class and one research seminar (which may or may not be a perspective), or

    (b) taking two research seminars, at least one of which is also a perspective.

In addition, students who complete either the joint M.B.A. or joint M.P.A. program at the time of earning the J.D. are deemed to have satisfied the perspective requirement.

The following courses satisfy the perspective requirement:

Perspective Courses

LAW 601	Lawyers, Poets and Poetry	3
LAW 602	Lawyers and Film	3
LAW 607	Psychology for Lawyers	3
LAW 614	Jewish/Islamic Comparative Law	3
LAW 621	Lawyers as Leaders	3
LAW 688A	Seminar in American Constitutional History	2
LAW 689B	Seminar: Judicial Power and Restraint	2
LAW 689H	Seminar: Bioethics and the Law	2
LAW 689I	Seminar: Environmental Justice	2
LAW 689K	Seminar: Civil Disobedience	2
LAW 689M	Seminar: Race/Racism and American Law	2
LAW 689P	Seminar: Gender and Law	2
LAW 689S	Seminar: Law and Socioeconomic	2
LAW 689T	Seminar:Comparative and International Workplace Law	2
LAW 689Y	Seminar in Sustainable Development	2
LAW 701	International Human Rights	3
LAW 712	Analytical Methods for Lawyers	3
LAW 739	American Legal History	3
LAW 744	Law and Economics	3
LAW 746	Lawyers and Literature	3
LAW 752	Jurisprudence	3
LAW 768	International Law	3
LAW 781	Postmodern Jurisprudence	3

Additional Approved Courses

LAW	Adv Crim Law: Crime File Doc
LAW	Comparative Law (Common Law v Civil)
LAW	Comparative Law: European Union
LAW	Dying & the Law
LAW	Lawyer as Storyteller
LAW	Memoir and Legal Education
LAW	Sem: Democratic Transitions
LAW	Sem: Empirical Legal Methods
LAW	Sem: Genetic Property & the Law

LAW	Sem: Science and the Law	
LAW	Sem: Sexuality and Law	
LAW	Trends in the Profession	

Capstone Requirement. Capstone courses provide students with opportunities to critically synthesize and apply knowledge and skills they have developed during law school. The following course(s) satisfy the capstone requirement:

Capstone

LAW 627 & LAW 628	Land Use/Sustainable Development Clinic 1 and Land Use/Sustainable Development Clinic 2	12
LAW 650 & LAW 651	Entrepreneurship Clinic 1 and Entrepreneurship Clinic 2	9
LAW 655 & LAW 656	Law and Public Service Full-Time and Law and Public Service Externship Full-Time	13
LAW 677 & LAW 678	United States Supreme Court Clinic 1 and United States Supreme Court Clinic 2	8
LAW 756	Trial Advocacy (C or better)	4
LAW 779	Business Transactions Drafting	4
LAW 780 & 780A	Federal Judicial Externship 1 and Federal Judicial Externship 2	13
LAW 782 & LAW 783	Legal Clinic 1 and Legal Clinic 2	14

In addition to the above-listed capstone courses, students may also fulfill the capstone requirement by completing the following:

- When available: writing a faculty-supervised brief and making an oral argument before the U.S. Court of Appeals or the Supreme Court of Appeals of West Virginia as an independent study project (two credits)
- By petition only: an interdisciplinary project supervised by a law faculty member and a university faculty member who is not a law faculty member.

Prerequisite Requirement for Some Capstone Courses. The course in Evidence is a prerequisite to taking Trial Advocacy, the Clinical Law Program, or a Federal Judicial Externship. (There is no requirement that the student attain a particular grade in Evidence prior to taking the other courses.)

Requirement Waiver. In exceptionally rare circumstances, the Academic Standards Committee may exempt a student from taking a required course or may permit a student to take a course out of sequence.

A.4 UPPER-LEVEL ELECTIVES

Apart from the small number of upper-level requirements already described, students choose from a wide variety of upper-level electives to create their courses of study over the final two years of law school. A list of all the permanent law school courses with their descriptions can be found elsewhere in this academic catalog. (See "Courses.") The law school also offers additional courses on a temporary basis that are not included in this catalog.

With so many choices, students may wish for guidance about how to choose the courses best suited to their goals and interests. Toward that end, each spring the Associate Dean for Academic Affairs meets with rising 2L students and publishes on the law school website a booklet entitled *Curriculum Opportunities and Options: An Informal Guide to Planning Your Last Two Years of Law School.* For the latest version, go to the "Course Schedules and Student Resources (http://www.law.wvu.edu/academics/course-schedule-and-student-resources)" link on the College of Law homepage. This booklet includes, among other things, advice about curricular planning, lists of key courses for various areas of practice and when they are typically offered, and information about subjects tested on the bar exam. Students with questions about choosing courses that are not addressed in the booklet should consult faculty in their areas of interest and/or the Associate Dean for Academic Affairs.

In addition, the College of Law website contains a "Course Classifieds (http://www.law.wvu.edu/academics/course-schedule-and-student-resources/course-classifieds-fall-2014)" page where professors may post information about courses to be offered in the next semester. Typically, "course classifieds" listings for a given semester begin to appear a few weeks before registration for that semester.

A.5 AREAS OF EMPHASIS

An Area of Emphasis (also informally called a "Concentration") is a course of study that enables students to develop skills and competency in a particular area of the law. A student who satisfies the requirement of an Area of Emphasis will have that Area of Emphasis listed on the official transcript. The College of Law has four Areas of Emphasis: (1) Energy and Sustainable Development Law, (2) International Law, (3) Labor and Employment Law, and (4) Public Interest Law.

ENERGY AND SUSTAINABLE DEVELOPMENT LAW AREA OF EMPHASIS

The Energy and Sustainable Development Law Area of Emphasis is intended to educate the next generation of lawyers who will work in and shape the fields of energy, environmental, and sustainable development law, by providing an opportunity to learn the applicable laws and regulations in this area, consider policy issues through written work, and obtain practical skills applicable in this area through an experiential learning requirement.

Course Requirements. In order to satisfy the requirements of this Area of Emphasis, a student must have (1) all required first-year courses; (2) all required core courses; and (3) seventeen (17) total credit hours from a combination of the required courses, designated elective courses, and the experiential learning course (see below). Note: No more than five credits of the 17 credits can come from clinic or an externship.

Required Courses		9
LAW 630	Energy Law	
LAW 764	Administrative Law	
LAW 789	Law of Environmental Protection	
Elective Courses		5-7
LAW 604	Natural Resources	
LAW 612	Agriculture and Rural Land Use	
LAW 613	International Environmental Law	
LAW 627	Land Use/Sustainable Development Clinic 1	
LAW 634	Energy Reg, Markets and Environ	
LAW 635	Land Use and Resilience Law	
LAW 689D	Seminar: Environmental Law	
LAW 689E	Seminar: Land Transactions	
LAW 689I	Seminar: Environmental Justice	
LAW 689W	Seminar:Issues in Energy Law	
LAW 689Y	Seminar in Sustainable Development	
LAW 713	Toxic Torts	
LAW 737	Land Use Planning	
LAW 766	Coal/Oil and Gas	
LAW	Agriculture & Food Law	
LAW	Energy Bus:Law & Strategy	
LAW	Energy Law/Practice	
LAW	Energy Permit & Siting	
LAW	Environmental Law/Policy	
LAW	Hazardous Waste	
LAW	Intrntl Enrgy/Climate Law	
LAW	Law of Coal	
LAW	Mine Safety Law	
LAW	Nuclear Law & Policy	
LAW	Renewable Energy/Alt Fuel	
LAW	Science/Technology-Energy	
LAW	Sem: Human Rights/Environment	
LAW	Sem: Hydraulic Fracturing	
LAW	Water Law	
Writing Requirement		
Experiential Learning		3-5
Extra/Co-Curricular Activities		
Total Hours		**17**

Writing Requirement. Students must produce a written paper or court document of no less than 25 pages on a topic related to energy, environmental, and/or sustainable development law. A student may fulfill this requirement through any of the following methods:

1. Law Review Note, with approval of the Area of Emphasis administrator and with a faculty member as advisor.

2. A Court Document, e.g. Amicus Brief or Memorandum of Law (real or moot), with the approval of the Area of Emphasis administrator and with a faculty member as advisor.

3. Independent study overseen by an Area of Emphasis faculty member.

4. Qualifying paper in any elective course listed above.

- The writing requirement requires input and approval from a faculty member and the Area of Emphasis administrator, even if the writing was completed outside a formal class or independent study arrangement. A student may fulfill the writing requirement through an alternative method with the consent of the Area of Emphasis administrator.

Experiential Learning. Students must meet the following experiential learning requirement of no less than 3 credits (no more than 5 credits from participation in a clinic count toward the 17 credit requirement). A student may fulfill this requirement through any of the following methods:

1. Land Use and Sustainable Development Clinic
2. Externship approved per catalog, with approval of the Area of Emphasis administrator
3. Other clinic or simulation course, with approval of the Area of Emphasis administrator

- A student may fulfill the experiential learning requirement through an alternative method with the consent of the Area of Emphasis administrator.

Extra Curricular or Co-Curricular Activity Requirement. Students must also meet the following requirement:

1. Ten hours of related extracurricular or co-curricular activities, such as active participation in the Energy Law Society or Environmental Law Society, attending relevant meetings, hearings or speakers, administrative or other active participation in related events (e.g., moot court, symposia).

INTERNATIONAL LAW AREA OF EMPHASIS

The International Law Area of Emphasis is intended to educate the next generation of lawyers who will work in careers related to international law and its many subspecialties (in both public international law and its many subspecialties (in both public international law and private international law). The Area of Emphasis will provide students with robust and varied opportunities to learn and develop skills in international law-related practice areas.

Course Requirements. In order to satisfy the requirements of this Area of Emphasis, a student must have (1) all mandatory first-year requirements; (2) all required core courses; and (3) seventeen (17) total credit hours from a combination of the required courses, designated elective courses, and the experiential learning course (see below). Note: No more than five (5) credits of the seventeen (17) credits can come from clinic or an externship.

Required Courses		12
LAW 603	Comparative Brazilian Law	
or LAW 610	Comparative Law in Mexico	
or LAW 617	Geneva Study Abroad	
LAW 626	International Trade Law	
or LAW 633	International Business Transactions	
LAW 701	International Human Rights	
LAW 768	International Law	
Elective Courses		0-3
LAW 613	International Environmental Law	
LAW 614	Jewish/Islamic Comparative Law	
LAW 626	International Trade Law	
LAW 633	International Business Transactions	
LAW 688B	Seminar in International Trade Regulations	
LAW 689N	Seminar: Refugee and Asylum Law	
LAW 689T	Seminar:Comparative and International Workplace Law	
LAW 689X	Seminar: National Security Law	
LAW 689Y	Seminar in Sustainable Development	
LAW 723	Immigration Law	
LAW 764	Administrative Law	
Writing		
Experiential Learning		2-5
Extra/Co-Curricular Activities		
Total Hours		**17**

Additional courses may be added with the consent of the Area of Emphasis administrator.

Writing Requirement. Students must engage in research and produce a written paper or court document of no less than 25 pages on a topic related to international law. This requirement can be satisfied by satisfactory completion and submission of a written document that falls within any of the following categories:

1. Qualifying paper in any designated elective course or seminar.
2. Independent Study approved per WVU College of Law catalog and overseen by an Area of Emphasis faculty member.
3. Law Review Note, with approval of the Area of Emphasis administrator and with a faculty member as advisor.
4. A Court Document, e.g. Amicus Brief or Memorandum of Law (real or moot) with the approval of the Area of Emphasis administrator and with a faculty member as advisor.

The writing requirement requires input and approval from a faculty member and the Area of Emphasis administrator, even if the writing was completed outside a formal class or independent study arrangement. A student may fulfill the writing requirement through an alternative method with the consent of the Area of Emphasis administrator.

Experiential Learning Requirement. Student must meet the following experiential learning requirement of no less than two (2) credits, with no more than five (5) credits from a clinic counting towards the seventeen (17) credit requirement. A student may fulfill this requirement through any of the following methods:

- Participation in at least one year of the College of Law's Jessup International Moot Court team (LAW 652)
- International Organization Externship (full- or part-time)
- Government Agency Externship (full- or part-time - must be related to an area of international, comparative, or transnational law)
- Immigration Clinic

Note: Any externship placements for the International Law and Practice Area of Emphasis must comply with the general rules of the externship program.

A student may fulfill this Area of Emphasis requirement through an alternative method with the consent of the Area of Emphasis administrator.

Extra Curricular or Co-Curricular Activity Requirement. Students must also meet the following requirements:

Ten hours of related extracurricular or co-curricular activities, such as active participation in the International Law Students Association, by attending relevant meetings, hearings or speakers, administrative or other active participation in the international law-related events (e.g., symposia).

Foreign Language

Students are strongly encouraged to gain competency in a foreign language in conjunction with pursuing this Area of Emphasis.

LABOR AND EMPLOYMENT LAW AREA OF EMPHASIS

The Labor and Employment Law Area of Emphasis is intended to educate the next generation of lawyers in West Virginia and beyond who will work in and shape the fields of labor and employment law by providing an opportunity to learn the applicable laws and regulations in the area, consider policy issues through a written work, and obtain practical skills applicable in the area through an experiential learning requirement.

Course Requirements. In order to satisfy the requirements of this Area of Emphasis, a student must have (1) all required first-year courses; (2) all mandatory core courses; and (3) seventeen (17) total credit hours from mandatory core courses, designated elective courses, and an experiential learning course (described below). Note: No more than five (5) credits of the seventeen (17) credits can come from clinic or an externship.

Required Courses		9
LAW 741	Employment Law	
LAW 763	Employment Discrimination	
LAW 771	Labor Law	
Elective Courses		3-5
LAW 632	Advanced Labor Law	
LAW 689S	Seminar: Law and Socioeconomic	
LAW 689T	Seminar:Comparative and International Workplace Law	
LAW 701	International Human Rights	
LAW 720	Entertainment Law	
LAW 721	Sports Law	
LAW 723	Immigration Law	
LAW 726	Constitutional Law 2	
LAW 750	Alternative Dispute Resolution	
LAW 760	Workers Compensation Law	
LAW 764	Administrative Law	
ERISA		
Mine Safety Law		

Writing	
Experiential Learning	3-5
Extra/Co-Curricular Activities	
Total Hours	**17**

Writing Requirement. Students must produce a written paper or court document of no less than 25 pages on a topic related to labor law, employment law, employment discrimination law, benefits law, and/or comparative/international work law. A student may fulfill this requirement through any of the following methods:

1. Qualifying paper in any designated elective course.
2. Independent Study approved per WVU College of Law catalog and overseen by an Area of Emphasis faculty member.
3. Law Review Note, with approval of the Area of Emphasis administrator and with a faculty member as advisor.
4. A Court Document, e.g. Amicus Brief or Memorandum of Law (real or moot) with the approval of the Area of Emphasis administrator and with a faculty member as advisor. For example, a student may fulfill this requirement by participating in New York Law School's Wagner Moot Court Competition as part of the Moot Court Team.

Experiential Learning Requirement. Student must meet the following experiential learning requirement of no less than three (3) credits (no more than 5 credits from participation in a clinic count toward the seventeen (17) credit requirement.) A student may fulfill this requirement through any of the following methods:

1. Externship in a labor/employment practice setting approved by the Area of Emphasis administrator and complying with the general rules and policies governing externships
2. Entrepreneurship Clinic (LAW 650 & LAW 651)
3. Other clinic or simulation course, with approval of the Area of Emphasis administrator

Area of Emphasis students in the Entrepreneurship Clinic or any other clinic approved by the Area of Emphasis administrator shall make every effort to work on labor and employment matters within these clinic placements.

A student may fulfill the experiential learning requirement through an alternative method with the consent of the Area of Emphasis administrator.

Extra Curricular or Co-Curricular Activity Requirement. Student must also meet the following requirements:

1. Ten hours of related extracurricular or co-curricular activities, such as active participation in the Labor Law Society or ADR Society, attending relevant meetings, hearings or speakers, administrative or other active participation in the work-law related events (e.g., moot court, symposia).

PUBLIC INTEREST LAW AREA OF EMPHASIS

The objective of the Area of Emphasis in Public Interest Law is to prepare students to work to further the interests of the general public using the legal process through the representation of individuals and organizations who might otherwise be underrepresented.

Course Requirements. In order to satisfy the requirements of this Area of Emphasis, a student must have (1) one required course; and (2) seventeen (17) total credit hours from one required course, designated elective courses, and the credits allowed for the experiential learning course (see below).

Required Courses (choose one)		3-4
LAW 620	The Legislative Process	
LAW 750	Alternative Dispute Resolution	
LAW 756	Trial Advocacy	
LAW 788	Interviewing, Counseling, and Negotiation	
Elective Courses		6-11
LAW 604	Natural Resources	
LAW 605	Post-Conviction Remedies	
LAW 609	Child Protection and the Law	
LAW 612	Agriculture and Rural Land Use	
LAW 615	Elder Law	
LAW 625	Nonprofit Organizations	
LAW 629	Advanced Family Law Advocacy	
LAW 640	Parent, Child, and State	
LAW 689F	Seminar: Lawyers and Legislation	
LAW 689I	Seminar: Environmental Justice	
LAW 689J	Seminar: Civil Rights Litigation	

LAW 689K	Seminar: Civil Disobedience	
LAW 689N	Seminar: Refugee and Asylum Law	
LAW 689V	Seminar: Juvenile Justice	
LAW 717	Domestic Violence and The Law	
LAW 723	Immigration Law	
LAW 759	Civil Rights	
LAW 763	Employment Discrimination	
LAW 769	Family Law	
LAW 771	Labor Law	
LAW 789	Law of Environmental Protection	
Writing Requirement		
Experiential Learning		3-7
Pro-Bono Requirement		
Total Hours		**17**

Writing Requirement. Students must produce a written paper of no less than 25 pages on a topic related to public interest law. A student may fulfill this requirement through any of the following methods:

1. Law Review Note, with approval of the Area of Emphasis administrator and with a faculty member as advisor.
2. Qualifying paper in any elective course listed above.
3. Qualifying paper in a non-designated elective course if the topic involves matters of public interest, with the advance approval of the Area of Emphasis administrator.
4. Independent study approved per the catalog and overseen by an Area of Emphasis faculty member.

Experiential Learning. Students must meet the following experiential learning requirement of no less than 3 credits. No more than 7 credits from participation in a clinic shall count toward the 17 credit hour requirement for the concentration. A student may fulfill this requirement through any of the following methods:

1. Any West Virginia University College of Law clinic; provided, however, that any student in clinic shall make every effort to work on matters that further the interests of the general public using the legal process through the representation of individuals and organizations who might otherwise be unrepresented.
2. Externship approved per the catalog and approved by the Area of Emphasis administrator.

Pro-Bono Requirement. Students must also meet the following requirement:

1. Twenty-five pro-bono hours over the student's three years at the College of Law (which may include, but is not limited to, participation in Public Interest Advocates).

A.6 PART-TIME PROGRAM

Full-time students average just over fifteen hours per semester in order to amass ninety-one credits in six semesters. Students taking significantly fewer hours per semester will take longer to finish their degrees and are considered part-time students at the College of Law. (Note, however, that in the eyes of the university, graduate or professional students taking nine hours or more are charged full tuition and fees. Thus, some "part- time" students will still pay the same tuition and fees each semester as their full-time colleagues.)

Part-time students are subject to the same graduation requirements in terms of total credit hours (ninety-one credits), cumulative grade point average (2.30), and specific required courses. Per ABA requirements, part-time students have to complete all graduation requirements within seven years from the date of initial enrollment.

Students Who Wish to Begin Law School as Part-Time Students. The Admissions Committee selects first-year part-time students from students already admitted to the Law School. The total size of the entering class is not increased. Written applications for part-time status are required, and selection is based on objective indicators of the need to attend on a part-time basis. Students who wish to become part-time students after starting law school but before completing the first-year curriculum must consult with the Associate Dean for Academic Affairs as indicated in this catalog's section on Academic Policies and Procedures. Students who have completed the first-year curriculum (see "First-Year Curriculum (p. 466)" above) may become part-time students by advising the Associate Dean for Academic Affairs of that intention at the beginning of the semester.

First-Year Curriculum. Part-time students must take both semesters of LRRW and the fall Introduction to Legal Research course in their first year of law school. Typically, part- time students take two courses in addition to LRRW/Legal Research in each semester of the first year, then take the rest of the first-year curriculum in their second year of studies. As a general rule, part-time students may not enroll in upper-level courses until they have completed the entire first-year curriculum. Exceptions to this rule may be granted for good cause by the Associate Dean for Academic Affairs.

Scheduling of Classes. Part-time students must consult the Associate Dean for Academic Affairs in scheduling.

Probation and Dismissal. Students entering the part-time program during the first-year curriculum are subject to the probation and dismissal rules applicable to full-time students who have completed the first-year curriculum only when the part-time students have completed the entire first-year curriculum. Part-time students do not receive a class rank until they have completed the entire first-year curriculum. In all other respects, part-time students and full-time students attending more than six semesters are subject to probation and dismissal rules substantially equivalent to those applicable to full-time students.

B. DUAL-DEGREE PROGRAMS

1. Masters of Business Administration (p. 474)
2. Masters of Public Administration (p. 474)

Students may enroll in an approved joint degree program with another College of the University. At present, there are two such programs: a joint J.D./M.B.A. (Masters of Business Administration) and a joint J.D./M.P.A. (Master of Public Administration).

B.1 MASTERS OF BUSINESS ADMINISTRATION (M.B.A.)

A J.D./M.B.A. student may earn law school credit pursuant to the joint degree requirements approved by the faculties of the College of Law and the College of Business and Economics and published to students admitted to that program. (See below for program requirements.) J.D./M.B.A. students receive twelve credits toward the J.D. degree if the M.B.A. degree is awarded before or concurrently with the J.D. degree, which means that at least 79 J.D. credit hours are required. Grades earned in business school classes do not affect the cumulative law school GPA. Professor Jena Martin and Barton Cowan are the College of Law contact persons for the J.D./M.B.A. program.

Required J.D. Curriculum		38-39
First-Year Curriculum		
LAW 715	Appellate Advocacy	
LAW 742	Professional Responsibility	
Seminar		
Upper-Level Requirements		31
LAW 621	Lawyers as Leaders (**)	
LAW 633	International Business Transactions (**)	
LAW 719	Income Taxation 1	
LAW 729	Business Organizations	
LAW 764	Administrative Law	
LAW 776	Sales and Secured Transactions (**)	
LAW 779	Business Transactions Drafting	
LAW 784	Securities (**)	
LAW	Taxation of Business Entities	
Electives*		10
Required M.B.A. Courses (BADM 600-level coursework)		12

*The College of Law's perspective requirement is met by completing the dual-degree. Also, the capstone requirement is met by completing Business Transactions Drafting, which is required in the J.D./M.B.A. program.

**Students may substitute up to two (2) of the courses marked with a double-asterisk with approval from the J.D./M.B.A. advisor.

***Students are strongly advised (but not required) to take the Entrepreneurship Clinic (4-8 hours) as part of their J.D./M.B.A. electives.

B.2 MASTERS OF PUBLIC ADMINISTRATION (M.P.A.)

A J.D./M.P.A. student may earn law school credit for one M.P.A. course (up to four hours) if that course is taken after the student has entered the College of Law. In addition, if the M.P.A. degree is awarded before or concurrently with the J.D. degree, an M.P.A. student may receive an additional two hours of law school credit for courses included in the M.P.A. degree that the student takes while enrolled in the College of Law. Grades earned in Public Administration do not affect the cumulative law school GPA. Professor John Taylor is the College of Law contact person for the J.D./M.P.A. program.

C. LL.M. - MASTER OF LAWS

C.1 ENERGY AND SUSTAINABLE DEVELOPMENT LAW

WVU College of Law is committed to playing a prominent role in shaping the energy, environmental, and sustainable development policies of the future for the state, the nation, and the world.

Energy is the foundation of our nation's future, both economically and environmentally. West Virginia is at the center of energy production for the country. There is no better place to learn about the intersecting laws and policies governing all of the country's energy resources than at WVU College of Law.

Although many law schools provide opportunities to learn energy or environmental law, WVU College of Law is committed to providing students opportunities to learn the full range of energy, environmental, and sustainable development law through its Center for Energy and Sustainable Development Law (http://energy.law.wvu.edu) and through its other resources in the area.

The College of Law provides a broad and deep offering of courses, experiential learning opportunities, and practical training for every part of the energy sector. Our broad spectrum of courses allows our students to prepare to be lawyers and leaders serving energy companies, investors, utilities, manufacturing companies, lawmakers, policymakers, regulators, land use professionals, and environmental organizations.

PROGRAM OBJECTIVES

The College of Law's objectives in establishing an LL.M. in Energy and Sustainable Development Law are as follows:

- To educate the next generation of lawyers in the state and beyond who will work in and shape the field of energy and sustainable development;
- To utilize WVU's expertise and reputation in the areas of natural resources, energy, and sustainable development and further establish the College of Law as a leader in law and public policy in those fields; and
- To build upon the WVU 2020 Strategic Plan for the Future, which emphasizes the unique role and expertise of West Virginia and the university in the areas of natural resources, energy, and sustainable development.

ADMISSION REQUIREMENTS

WVU Law's LL.M. in Energy and Sustainable Development Law will be a source for a high-quality professional legal education and a home for thought leaders in the areas of energy and sustainable development.

Minimum admission requirements for the program are as follows:

- A J.D. from an ABA-accredited school (or foreign equivalent, as determined by the College of Law in accordance with ABA guidelines).
- A J.D. (or equivalent) grade point average of at least a 3.0 (on a 4.0 scale) or other demonstrated indicia of likelihood of success.
- A demonstrated interest in or commitment to the fields of energy and/or sustainable development.

CURRICULUM

The College of Law intends that its graduates excel academically. Our goal is for our graduates to function on a high level as professionals in the field and to add to the national conversation on energy and sustainable development policy on a thoughtful and practical level.

This goal is reflected in our rigorous curriculum for the LL.M. in Energy and Sustainable Development Law.

Required Courses

LAW 630	Energy Law	3
LAW 764	Administrative Law	3
LAW 789	Law of Environmental Protection	3
LAW 670	LLM Seminar	3
Capstone		4
LAW 671	LLM Capstone (minimum 1 credit required)	

In addition to the required courses, 10 credits must be completed from the Electives and/or Related Courses.

Electives 10

LAW 604	Natural Resources	3
LAW 612	Agriculture and Rural Land Use	3

LAW 613	International Environmental Law	3
LAW 627	Land Use/Sustainable Development Clinic 1	4-6
LAW 628	Land Use/Sustainable Development Clinic 2	4-6
LAW 634	Energy Reg, Markets and Environ	3
LAW 635	Land Use and Resilience Law	3
LAW 689D	Seminar: Environmental Law	2
LAW 689E	Seminar: Land Transactions	2
LAW 689I	Seminar: Environmental Justice	2
LAW 689W	Seminar:Issues in Energy Law	2
LAW 689Y	Seminar in Sustainable Development	2
LAW 713	Toxic Torts	3
LAW 737	Land Use Planning	3
LAW 766	Coal/Oil and Gas	3
LAW	Agriculture & Food Law	
LAW	Energy Bus:Law & Strategy	
LAW	Energy Law/Practice	
LAW	Energy Permit & Siting	
LAW	Environmental Law/Policy	
LAW	Hazardous Waste	
LAW	Intrntl Enrgy/Climate Law	
LAW	Law of Coal	
LAW	Mine Safety Law	
LAW	Nuclear Law & Policy	
LAW	Renewable Energy/Alt Fuel	
LAW	Science/Technology-Energy	
LAW	Sem: Human Rights/Environment	
LAW	Sem: Hydraulic Fracturing	
LAW	Taxation of Energy and Natural Resources (NEW)	
LAW	Water Law	

Related Courses

LAW 620	The Legislative Process	3
LAW 633	International Business Transactions	3
LAW 689X	Seminar: National Security Law	2
LAW 719	Income Taxation 1	3
LAW 729	Business Organizations	4
LAW 734	Intellectual Property	3
LAW 755	Partnership Tax	2
LAW 768	International Law	3
LAW 771	Labor Law	3
LAW 774	Local Government	2
LAW 778	Trade Regulation	3
LAW 779	Business Transactions Drafting	4
LAW 784	Securities	3

Class Work. One-year course of study requiring 26 credit hours, including a final paper or fieldwork project. Students will have the added benefit of seeking approval to include up to 6 credits in their course of study from relevant WVU graduate-level programs, such as course offerings in business, ecology, engineering, public policy, economics, and natural resources.

Energy Law Survey. This introductory energy law course provides an overview of the law and regulatory policies that govern and affect the energy industry. The course includes a review of the various traditional and renewable energy sources, mineral rights, economic regulation of the energy industry, and climate change and environmental concerns.

Environmental Protection Law. This survey course introduces students to energy, environment, and sustainability law and policy issues. Students will examine the development of environmental law from its common law tort roots through the birth of the "environmental movement" and the enactment

of federal environmental regulatory laws such as the Clean Water Act, the Clean Air Act, and the Surface Coal Mining and Reclamation Act. The overarching goals of the course are to expose students to "real world" environmental issues they may face in practice and the principles, doctrine, and process lawyers use while representing clients in environmental and natural resource matters.

Administrative Law. A basic understanding of administrative law is nearly essential for all attorneys. This is especially true for those practicing in the areas of energy, environmental, and sustainable development law. This course covers the creation and operation of administrative agencies, common procedural practices and requirements of administrative procedure acts, judicial control of administrative agencies, and constitutional issues related to the area.

LL.M. Seminar. The program will require a 3-credit LL.M. Seminar that covers a wide range of energy and sustainable development law and policy and explores diverse advanced topics and perspectives. The seminar will feature guest speakers who will present their scholarship and other works. Guests will include, for example, WVU Law faculty, local and national scholars and practitioners, government officials, regulators, and other leaders in the fields. Students will be required to engage in rigorous preparation for each seminar discussion and will be expected to develop a writing project that will be presented at the end of the course.

LL.M. Capstone (Research Paper or Fieldwork Project). The College of Law expects LL.M. graduates to bring their in-depth knowledge in the areas of energy and sustainable development into the world in a tangible way. The 4-credit Capstone (Research Paper or Fieldwork Project) requirement lays the groundwork for that expectation. For those students looking to focus on influencing energy and sustainable development policy, the option to write a research paper on a significant issue in law and energy or sustainable development policy would form the basis for further work in the field. The paper can be related to an existing course (e.g., a 3-credit course with an additional credit granted for additional required research) or a student-specific study/thesis option with the approval of the program director.

Those students intending to enter private practice or work in industry may prefer to experience real world problems with real world clients. Whether through existing experiential learning opportunities available through the College of Law or through specific projects developed through student interest or via significant industry contacts, a student will be able to see energy and sustainability law in actual practice. Each project will require approval of the program director before it is started and upon completion.

Specializations. Given the nature of the degree, students will earn their LL.M. in Energy and Sustainable Development Law without further formal specialization. Beyond the course requirements, however, students will have the flexibility in elective courses to focus their studies more specifically on courses in energy law, land use planning, and environmental law, among other options.

Portfolio of Work. All LL.M. students will be required to develop a portfolio of work, consisting of at least four written pieces that are representative of the student's experiences in the course of the program. These pieces could include, but are not limited to, scholarly papers, industry white papers, significant legal motions, briefs or memoranda, substantial transactions documents, policy analyses, or draft legislation or regulations.

GRADUATION REQUIREMENTS

The graduation requirements for the LL.M. in Energy and Sustainable Development Law are as follows:

- A minimum GPA of 2.5 (on a 4.0 scale).
- No less than the equivalent of a "C" (2.0) in any class counted toward the degree.
- Successful completion of the required 26 credits (including the LL.M. Seminar and the LL.M. Capstone).
- Completion of the 3-credit LL.M. Seminar, which must be completed in residence at the College of Law's Morgantown campus unless otherwise approved by the program director.
- Successful completion of the 4-credit-hour Capstone (writing or field-work project) requirement.
- Development of a portfolio of work (consisting of at least four written pieces) that is representative of the student's experiences in the course of the program.

C.2 FORENSIC JUSTICE

Recent developments have demonstrated that a solid grounding in the scientific method and forensic evidence is critical for any attorney, especially for those practicing criminal law. These developments include more than 300 DNA-based exonerations that have taken place since the early 1990's, the uncovering of numerous scandals in forensic laboratories across the country, and the recommendations put forth by the National Academy of Sciences in a 2009 report.

The WVU College of Law, in partnership with the WVU Department of Forensic and Investigative Science, is a pioneer in the criminal justice field by offering the country's only graduate law degree program in Forensic Justice.

Many American law schools offer upper-level courses in areas such as expert testimony and forensic evidence, but LL.M. programs in law and forensic science remain virtually nonexistent. Currently, no other ABA-approved U.S. law school offers such a degree.

Because WVU has long been a leader in the field of forensic sciences and is also home to the highly regarded Department of Forensic and Investigative Sciences, WVU Law is a natural location for the country's first LL.M. in Forensic Justice.

The LL.M. curriculum makes use of the expertise present at the University and allow LL.M. candidates the opportunity to combine breadth-that is, exposure to a wide range of forensic methods- with depth- the opportunity to conduct original, independent research in a narrower area of interest.

PROGRAM OBJECTIVES

The Forensic Justice LL.M. is flexible enough to allow experienced practitioners to improve and expand their skills, allowing them to better serve their clients and communities, while also offering new attorneys an opportunity to develop skills that will make them more marketable in their chosen profession, whether that be, for example, as a state or federal prosecutor, a public defender, or an attorney in private practice focusing on criminal defense.

The objectives of the LL.M. in Forensic Justice are to:

- Educate current and future West Virginia attorneys, and those of our region and nation, whose work will help shape the field of criminal law, particularly the areas of prosecution and criminal defense;
- Build on WVU's reputation as a leader in forensic and investigative sciences; and
- Pioneer a much-needed area of advanced academic training.

ADMISSION REQUIREMENTS

Minimum admission requirements for the LL.M. in Forensic Justice are as follows:

- A J.D. from an ABA (American Bar Association) accredited school (or foreign equivalent, as determined by WVU Law in accordance with ABA guidelines).
- A grade point average of at least a 3.0 (on a 4.0 scale) or other demonstrated indicia of likelihood of success.
- A demonstrated interest in or commitment to the fields of science, forensic evidence, and law.

Applicants may include newly graduated J.D. students, professionals (prosecutors, defense attorneys, judges) returning for study after years of practice, or qualified international students.

CURRICULUM

The program shall consist of a one-year course of study requiring 30 credit hours, which will be evenly split between courses offered by the COL and courses offered by the Department of Forensic and Investigative Sciences ("FIS"). Candidates will also be required to complete a substantial piece of written work, final paper, or field-work project. Students in the program may also have the option to include up to 4 credits in their course of study from relevant WVU graduate-level programs, such as statistics, biology, chemistry, physics, and mathematics, provided that these students meet the per-requisite course requirements.

Required Courses

LAW 712	Analytical Methods for Lawyers	3
FIS 480	Forensic Quality Assurance	2
FIS 501	Foundations of Criminalistics	3
FIS 620	Forensic Casework Practicum	3
Daubert and Cross Examination		
Advanced Evidence		
Law, Science, and Advocacy		
Quality Assurance		
Impression Evidence		
DNA Evidence and Chemistry		
LL.M. Seminar		3
LL.M. Capstone		4

LL.M. Seminar. The program will require a 3-credit LL.M. Seminar that covers a wide range of topics relating to the role that forensic evidence plays in the criminal justice system, the strengths and weaknesses of various forensic disciplines and other relevant topics. The seminar may feature guest speakers who will present their scholarship or will lecture on current issues in forensic science. Students will be required to engage in rigorous preparation for each seminar discussion and will be expected to develop a writing project that will be presented at the end of the course.

LL.M. Capstone (Research paper or field-work project). The College of Law intends its LL.M. graduates to bring their in-depth understanding of the areas of law and forensic science into their practice in a tangible way. To that end, the 4-credit research paper or field-work project is meant to lay the groundwork for future professional work. For students hoping to contribute to the growing body of legal scholarship focusing on the intersection (and sometimes tension) between law and forensics, the option to write a research paper on an important issue in the field might form the basis for a later

journal article. If the paper option is chosen, the paper can be related to an existing course (e.g. a 3-credit course with an additional credit granted for additional required research) or a student-created independent study option. That is, in addition to other program requirements, students must engage in an intensive 4-credit research experience that is coordinated with the approval of the Program Director.

Alternatively, those students wishing to enter private practice or the public sector may wish to work on real world problems. In this instance, the written work product might take the form of an appellate brief, a reply brief, a pre-trial motion relating to expert witness testimony, or other similar pleading. Opportunities to complete such projects may be available through existing experiential learning placements available at the COL or through specific projects developed through student interest. Each project will require approval of the Program Director before it is started and upon completion.

Specializations. Given the nature of the degree, students will earn their LL.M. in Forensic Justice without further formal specialization.

Prerequisites. It is expected that the majority of LL.M. candidates will already have taken both Evidence and Criminal Procedure as J.D. students. In the case of practitioners, prerequisite will be will waived if not met. Prerequisites may also be waived at the discretion of the Program Director after an individual consultation with the student.

Continuing WVU Students. The College of Law anticipates that some of the students in the program may be recent graduates of, or visitors at, the WVU College of Law, and therefore may have already taken some of the classes offered by the program. If such a student has already taken a significant number of the courses listed in the program curriculum as part of the J.D. course of study at the College of Law such that the student will have difficulty taking 30 credits of course work without repetition, then the program director may authorize such student to take other related courses that are not on the initial program curriculum listing. In all events, however, a student shall be required to meet the 30-credit hour requirement.

International Programs. The College of Law already offers a number of international programs for credit, including trips to Geneva, Mexico, and Brazil. The College of Law could approve participation in any of these international programs for the LL.M. credit, with approval of the program director, as long as there is a demonstrable link between participation in the international program and the student's course of study.

Portfolio of Work. All LL.M. students will be required to develop a portfolio of work, consisting of at least four written pieces that are representative of the student's experiences in the course of the program. These pieces may include, but are not limited to, scholarly articles, legal motions, briefs, or memoranda, policy analyses, or draft legislation.

GRADUATION REQUIREMENTS

The graduation requirements for the LL.M. in Forensic Justice are as follows:

- A minimum grade point average of 2.5 (on a 4.0 scale) upon graduation
- No less than the equivalent of a C (2.0) in any class counted toward the degree,
- Successful completion of the required 30 credits (including the LL.M. Seminar and the writing or field-work project),
- Completion of the 3-credit LL.M. Seminar, which must be completed in residence at the COL's Morgantown campus unless otherwise approved by the Program Director,
- Successful completion of the 4-credit hour writing or field-work project requirement, and,
- Development of a portfolio of work (consisting of at least four written pieces) that is representative of the student's experience in the course of the Program.

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A. ACADEMIC POLICIES

A.1 ACADEMIC CALENDAR

The College of Law has its own academic calendar, which differs from the general West Virginia University academic calendar. For example, the College of Law's examination period extends over a two-week period, instead of the standard one week. Law students should refer only to the College of Law Academic Calendar, which can be accessed from the College of Law website (http://www.law.wvu.edu).

A.2 SCHEDULING

The Associate Dean for Academic Affairs and the Assistant Registrar for the College of Law complete the master course schedule. The Assistant Registrar for the College of Law assigns first-year students to specific sections of their required courses. The students then register for these courses on the STAR system. Second- and third-year students make their own schedules through WVU's STAR System via the Internet.

A.3 MAXIMUM CREDITS PER SEMESTER

As noted above, ABA Accreditation Standard 304(e) states that law schools may not permit a student to be enrolled at one time in courses totaling more than twenty percent of the total hours required for graduation. This means that the maximum number of law school credit hours a student may take during a semester at the WVU College of Law is eighteen (i.e., 20% of ninety-one is 18.2). There are only two exceptions to the eighteen-hour per semester cap:

- Credit for academic extracurriculars (i.e. Law Review, Moot Court, Lugar, and Jessup)
- Students in joint-degree programs

Students who have no more than eighteen hours in regular courses and need to add an academic extracurricular should contact the Assistant Registrar for the College of Law.

A.4 SUMMER SCHOOL

Summer credits may be earned only at the West Virginia University College of Law, other ABA-accredited law schools, or their ABA- approved programs abroad. Students who are on academic probation may earn summer school credits only with the permission of the Academic Standards Committee. The College of Law will accept transfer credits only for courses where the student earned a grade of C or better. Students may transfer credits for pass/fail courses only with the advance approval of the Associate Dean.

A.5 AUDITING

A law student may audit a College of Law course (without receiving academic credit) with the permission of the professor teaching the course. The student and professor should reach an agreement about what the student must do to successfully audit the course. (Typically, professors require class attendance, preparation, and participation, but individual professors are free to ask auditors to do more if they wish.) Once a student has obtained a professor's permission to audit a course, the student should register the course in STAR and then notify the Assistant Registrar for the College of Law, who will update the 'Audit' status in STAR. An email from the professor giving permission to register for the course as an audit is required. A class may not be audited if it has reached its enrollment capacity.

A.6 WITHDRAWAL FROM THE PROGRAM

There are three types of withdrawals that are governed by this rule: (a) partial withdrawal from some part of a student's course work; (b) in-semester withdrawal from all College of Law courses in which a student is registered; and (c) between-semester withdrawal after the completion of one semester and before the start of the next semester. Any student considering withdrawing from school must see the Associate Dean for Academic Affairs. The faculty and staff of the College of Law are available and willing to help resolve any difficulties that may be hindering a student's legal studies. Any student wishing to withdraw must also see the Assistant Registrar for the College of Law and withdraw according to guidelines set by the College of Law and by the University. Please note that the deadlines described below are for fall and spring courses. Summer courses are often shorter in length, and may have very short deadlines (i.e., a couple of days) for dropping without the withdrawal being recorded on the student's official transcript.

Partial Withdrawal (a.k.a. dropping some, but not all, courses for a semester):

Reduction in the First Year. Because the first-year curriculum must be completed before the student may take upper-division courses, full-time students are not permitted to reduce the course load in the first year by dropping courses except with the permission of the Associate Dean for Academic Affairs. By faculty resolution, no student shall be allowed to drop the required first-year course in Legal Reasoning, Research, and Writing.

Dropping Courses After the First Year -- During First Week of Class. During the first week of the semester, upper-level students may drop any course without having a W ("withdrew") placed on their transcripts. (See the College of Law Academic Calendar for the specific date each semester.) If the dropped course brings a student's course load below nine hours, the student may be eligible for a reduction in tuition and fees.

Courses Dropped Before the "Last Day to Drop" Deadline. Until the "last day to drop a course" on the law school's academic calendar, students are free to drop most courses by simply logging into STAR and dropping. The exceptions to this policy are clinical courses and Practical Legal Writing II. Slots in such courses are limited, and the student who drops them after the first week has wasted an opportunity sought by others. Students may drop these courses only with the permission of the instructor and the Associate Dean for Academic Affairs, and such permission shall be given only for very strong reasons. The grade for a course dropped during this period shall be a "W." Please note that under

university policy (http://studentaccounts.wvu.edu/refunds/reduction_schedule), students who drop some but not all of their courses during this period receive no refund of tuition and fees.

Courses Dropped after the University Deadline. After the University's last date for withdrawal from a course (see the Academic Calendar), no student may withdraw from a course for any reason. Students who do not complete course requirements will receive an F for the course. Specifically, students denied permission to sit for a final because of excessive absences will receive an F if the last date for withdrawal has passed. This is a university rule, and no exceptions can be made.

In-Semester Withdrawal from All Classes:

Withdrawal during First Twelve Weeks. During the first twelve weeks of any semester, a student may withdraw totally from the West Virginia University College of Law by obtaining permission from the Associate Dean for Academic Affairs, and any student withdrawing from the West Virginia University College of Law during this period receives a grade of "W" in all courses dropped pursuant to this withdrawal. Students who withdraw completely within the first six weeks of class may be eligible for a partial refund of tuition and fees according to the University Refund Schedule. See website (http://studentaccounts.wvu.edu/refunds/reduction_schedule).

Withdrawal after First Twelve Weeks. After the first twelve weeks of a semester, a student may be permitted to withdraw totally from the West Virginia University College of Law only with the permission of the Academic Standards Committee. The Committee shall grant permission upon a showing by the student that continuation in school will create a severe hardship on the student because of some substantial physical, emotional, or family problem. If permission is granted, the student receives a grade of "W" in all courses dropped; if permission is denied, then the student remains responsible for his or her performance in all courses and will be graded accordingly. The last day to withdraw from all classes is the final day of class, as marked on the College of Law Academic Calendar.

Between-Semester Withdrawal. After the end of a semester and prior to the start of the next semester, a student may withdraw from the West Virginia University College of Law. In all such cases, the West Virginia University College of Law shall advise the student of its requirement that studies must be completed within seven years from the date on which the studies began.

Resumption of Studies:

First Semester, First Year. A student who withdraws from the West Virginia University College of Law before completing the first semester of the first year must, except as herein provided, be readmitted by making application for an initial admission to the West Virginia University College of Law. A student who withdraws during the first semester may petition the Dean at the time of such withdrawal for permission to be readmitted at the next regular fall semester of the West Virginia University College of Law. If the Dean determines that such withdrawal is for causes beyond the control of the student, the Dean will verify this fact in writing at the time of withdrawal and grant such permission. Permission to be readmitted to the West Virginia University College of Law applies only for admission for the beginning of the next academic year. An adverse decision by the Dean on granting this privilege may be appealed to the Faculty.

Other Students. Any student who withdraws voluntarily after the first semester of study and wishes to resume his or her studies must petition the Academic Standards Committee to be readmitted to the West Virginia University College of Law. The Committee may readmit the petitioning student subject to conditions of the Committee's choosing, or it may deny the petition for readmission, thus leaving the petitioner with the option of seeking admission to the College of Law through the regular admissions process. (Students who withdraw from law school and then successfully reapply through the regular admissions process start their legal educations "from scratch" alongside other members of their entering class; i.e., they begin with no credit hours and no law school GPA. Students who are readmitted through petition to the Academic Standards Committee retain credit hours and grades earned prior to their voluntary withdrawal from the College of Law.) In deciding whether to grant a petition for readmission, the Committee considers the length of the interruption of studies, the causes for the interruption of studies, the intervening activities of the student and how they relate to the intellectual activities of a law student, changes in curriculum and the teaching program of the West Virginia University College of Law, and any other factors deemed relevant. A readmitted student may be required to repeat, without credit, work previously done, or may be required to audit certain courses. Any student who is readmitted may have the student's overall academic program adjusted to meet the requirements at the time of readmission. Resumption of studies is permitted only at the beginning of a semester. A first-year student whose last complete semester was a fall semester is normally permitted to return only at the beginning of a spring semester.

A.7 INDEPENDENT STUDY

A student may earn up to two hours of credit for a suitable research project completed under the supervision of a full-time faculty member. An independent study must produce an academic research paper that would be acceptable in a research seminar, and it must involve an amount of research and writing commensurate with the credit hours awarded. For example, a student seeking two hours of independent study credit would be expected to produce a research paper at least twenty-five pages in length, i.e., the same length required for a two-credit research seminar. Students wishing to pursue an independent study should draft a plan for the independent study that would specify the proposed subject for the study, a research and reading agenda, and a paper topic. This plan should be presented to the faculty supervisor and to the Chair of the Academic Standards Committee, who must approve the project. A second faculty reviewer must approve the grade given for an independent study. The Associate Dean for Academic Affairs has the forms to be submitted to the Chair of the Committee. Independent study does not satisfy the seminar requirement. As stated in the rule on "Deficiencies After Three Years" (1.4.5), independent study courses are offered only during the fall and spring semesters and are not available during the summer.

A.8 EARNING LAW SCHOOL CREDIT OUTSIDE THE LAW SCHOOL

Individual Courses in Other WVU Colleges. Students who do not receive credit toward the J.D. for completion of a joint degree program may receive law school credit for one graduate level course in another discipline at WVU. No student may receive more than four credits under this rule. The student must obtain prior approval from the Associate Dean for Academic Affairs. Grades earned in other WVU colleges do not affect the student's law school GPA. When possible, students should choose the pass/fail option when registering to take courses in other WVU colleges so that grades for these courses are not included in the cumulative GPA on the student's professional school transcript.

Law students may also register for courses in other WVU colleges (e.g., physical education courses) that would not qualify for law school credit. Students do not need permission to take non-law courses for personal enrichment, but should notify the Assistant Registrar for the College of Law that they are doing so.

Study at Another School - Visiting. A student in good academic standing may take up to thirty credits toward graduation at another ABA-accredited law school. Upon completion at that law school of all the requirements necessary for the J.D. from West Virginia University College of Law, the West Virginia University College of Law J.D. will be awarded. Such students require advance approval of their curriculum by the Associate Dean for Academic Affairs. Only grades of C or better will be transferred to the West Virginia University College of Law. Students may transfer credits for pass/fail courses only with the advance approval of the Associate Dean. Grades earned at other law schools will not be included in the calculation of the student's cumulative law school GPA. Students who take required courses (as listed on pages 1-4 of this Handbook) for credit at other law schools are not eligible for election to Order of the Coif at the West Virginia University College of Law.

Study at a Foreign Law School - Visiting. The College of Law, in cooperation with the WVU Office of International Programs, permits individual students to take courses toward their law degree at foreign law schools. Applications are reviewed by the Associate Dean for Academic Affairs and must comply with the "Criteria for Student Study at a Foreign Institution" promulgated by the American Bar Association. Their application must also be approved by the Office of International Programs. Students seeking such credit must establish an educational purpose that both is consistent with the aims of the College of Law and can be met only through the proposed foreign study. Examples could include students seeking proficiency in the legal vocabulary of a foreign country, students seeking international credentials to support their practice of law, or students interested in the study of comparative legal systems. Students must have completed their first year in law school prior to application and can take only one semester under such a foreign program.

A.9 MISSING CLASS DUE TO ILLNESS

If you are ill and you must miss class, call or e-mail the professor whose class you will miss, unless the professor has another specific policy about absenteeism. If the illness is extended, contact the Associate Dean for Academic Affairs.

If you are struggling with physical or stress-related problems, please see someone right away! Students can go to the Student Health Service center for a $10-per-visit co-payment for in-office treatments (such as flu shots, cold treatments, etc.). Student Health Services is located in the basement of the Robert C. Byrd Health Sciences Center. For more information, see the "Health Services" subsection under the University Services section in this handbook, see the Student Health Service website, or call 304-293-9355.

If you are experiencing family or school stress, the Assistant Dean for Student Affairs, Janet Armistead (Janet.Armistead@mail.wvu.edu) is always available to help you find the best solution.

A.10 STUDY OUTSIDE THE CLASSROOM

The American Bar Association prohibits a student from taking more than a total of twenty-six course hours in the following types of classes: externships, co-curricular activities (such as Law Review, Moot Court, and Lugar Trial Association), independent study, courses in other graduate departments, summer abroad programs, and distance education programs that rely on teaching outside the classroom setting.

A.11 DISTANCE EDUCATION

Standard 306 states that distance education is "an educational process characterized by the separation, in time or place, between instructor and student" and includes courses offered via "technological transmission" (e.g., internet, closed circuit TV), "audio or computer conferencing," "video cassettes or discs," and correspondence.

No student may take more than twelve credits during his/her law school career in classes taught through distance education as defined by Standard 306. No student may take any distance education course until that student has completed at least twenty-eight credits in law school. Students should be aware that under ABA standards, the status of "asynchronous" courses (i.e., "online" or "web" courses) is uncertain. The College of Law sometimes offers a small number of web-based courses during the summer, but constantly monitors such courses to maintain educational quality and does not guarantee that any will be offered in the future. Students should also be aware that the New York Bar ruled in 2012 that it will not count asynchronous distance education hours toward the eighty-three law school credit hours students must earn to become members of the New York Bar. (Because WVU requires ninety-one hours for graduation, students who have taken a web course during law school can still become members of the New York bar

because they have, in the eyes of the New York Bar, eight "surplus hours.") Students should check the bar requirements in states where they plan to practice to see whether similar rules have been adopted there.

A.12 ABA REQUIREMENT

The American Bar Association accredits U.S. law schools. A Juris Doctorate (J.D.) degree from an ABA-accredited law school entitles you to take the bar examination in any state (other individual state requirements, such as character, being met). The WVU College of Law has been fully accredited by the ABA since 1923. The ABA standards for Approval of Law Schools are published annually and can be accessed at www.abanet.org. Of these standards, there are three particular ABA requirements worth noting here:

- Standard 304(c): The J.D. degree must be "completed no earlier than twenty-four months and no later than eighty-four months after a student has commenced law study."
- Standard 304(d): "A Law School shall require regular and punctual class attendance."
- Standard 304(e): "A Law School shall not permit a student to be enrolled at any time in coursework that, if successfully completed, would exceed twenty percent of the total coursework required by that school for graduation . . . ."

A.13 DEFICIENCIES AFTER THREE YEARS

Full-time students who are deficient in semester hours at the end of their third year of study must make up their deficiencies in regular law school courses. No credit is awarded for summer independent study or summer research. However, credit is awarded for summer school courses here or elsewhere or in the following fall semester. Independent study and research courses are offered only during the regular academic year, not during the summer.

A.14 EMPLOYMENT DURING LAW SCHOOL

First Year. Full-time first-year law students at WVU take a fixed curriculum consisting of 32 hours of demanding course work, and they must master materials, modes of analysis, and skills that will be unfamiliar to nearly all entering students. Succeeding in the first year is critically important in preparing students for their upper-level classes, the bar exam, and their future careers. For these reasons, the College of Law strongly discourages full-time first-year students from working during the fall and spring semesters. Law school, especially in the first year, should be treated as a demanding full-time job, and adding work on top of that job is likely to prevent students from performing to their academic potential and may also compromise students' physical and mental health. Nevertheless, the College of Law recognizes that some students' financial needs may require them to seek employment even during the first year. Full- time first-year students who intend to work for more than ten hours per week must disclose their employment plans to the Assistant Dean for Student Affairs and must schedule a meeting with the Assistant Dean to discuss their plans for balancing school and work. This must be done before beginning work or as soon as possible thereafter. Students who plan to retain a part- time job begun prior to law school should speak with the Assistant Dean for Student Affairs no later than the end of the first week of classes.

Second and Third Years. Many upper-level students are able to successfully combine law school with moderate levels of paid employment. Historically, ABA rules prohibited students from working more than 20 hours per week, but this limitation was repealed effective for the fall semester of 2014. Although no longer a firm prohibition, the ABA's traditional limit of 20 hours per week remains a good guideline for the amount of work most students can manage in addition to the demands of law school. While the College of Law has no formal mechanism for monitoring or limiting hours of employment during the second and third years, students who contemplate working more than this should think seriously about whether their contemplated schedule will jeopardize their studies and/or their general well-being. The Assistant Dean for Student Affairs and the faculty are happy to counsel upper-level students who plan to work more than twenty hours per week.

A.15 FULL-TIME STATUS AND TUITION/FEES

West Virginia University treats nine hours per semester as full-time status for graduate and professional students. That means you will be charged full tuition and fees for taking nine hours or more in a given semester. Students taking fewer than nine hours will receive a proportionate reduction of their tuition and fees. (e.g., students taking eight hours will be charged roughly 8/9 of their full-time tuition and fees.)

A.16 WVU GRADUATE AND POST-GRADUATE STUDENTS

Graduate and post- graduate students from other colleges, schools, and divisions within the university may enroll in WVU College of Law courses with the permission of the Associate Dean for Academic Affairs; the appropriate officer of the college, school, or division within the university to which they are attached; and the faculty member teaching the course. The Associate Dean shall not permit a student to enroll in a course under this provision if the student (1) would have taken more than twenty-one credit hours under this provision upon completion of the course or (2) has been excluded from the College of Law for any reason. The student's college, school, or university division will determine to what extent courses taken under this provision will be credited toward completion of the requirements for the student's graduate degree.

A student admitted to the College of Law after completing one or more courses under this provision (1) shall not receive any credit toward the J.D. degree for those previously completed courses, (2) must retake for credit, on a pass/fail basis, any course required for law school graduation that was previously taken, and (3) may not retake any elective course that was previously taken.

A.17 TRANSCRIPTS

Official transcripts can be obtained only by contacting the University Registrar's office. Information on requesting transcripts can be found on the University Registrar's website (http://registrar.wvu.edu/transcripts). Please note that it generally takes three to five working days for the University Registrar to produce a transcript, so it is important to plan accordingly.

B. GRADING INFORMATION AND PROCEDURES

B.1 EXAMINATIONS

Attendance and Exam Eligibility. The faculty subscribes to the principle that class attendance is important and necessary to the successful study of law. Therefore, a faculty member may deny permission to sit for an examination to a student because of poor class attendance. Furthermore, a student who is absent from as many as twenty-five percent of the scheduled class hours for any given course shall not be permitted to take an examination in the course except by special permission of the faculty member. Prior to the last day to drop a course (as indicated on the College of Law Academic Calendar), the faculty member may permit a student who is denied permission to sit for an examination to withdraw from the course or may assign that student a failing grade. After the last day to drop has passed, denial of permission to sit for the final examination automatically results in a grade of F for the course.

No Exams During Final Week of Classes. In-class final exams may not be scheduled during the last week of classes. In addition, the due date for take-home exams cannot be during the last week of classes.

Exam Numbers. The West Virginia University College of Law Assistant Registrar randomly selects and assigns official student examination numbers for students' anonymity in the grading process. The Assistant Registrar for the College of Law notifies students when their numbers are available. The Assistant Registrar protects the anonymity of student examination numbers throughout the examination and grading period.

Exam Accommodation Requests. During the final examination period, any student who has three or more finals on consecutive days may request to move the third final to the next day (excluding Sunday or other religious holiday) on which he or she does not have a final scheduled. The purpose of this rule is to prevent a student from having more than two consecutive days of law school finals. To obtain relief under this rule, a student must notify the Assistant Registrar for the College of Law before the specified deadline so that the exam can be rescheduled and the appropriate faculty member notified.

Deferment of Exams or Assignment Deadlines. A student with a substantial physical, emotional, or family problem that would make it impractical or grossly unfair to take a scheduled examination or meet another class-wide or general deadline may submit in advance a written request to be excused from taking the examination as scheduled or complying with the deadline as fixed. All such requests must be in writing, must be directed to the faculty member teaching the course in question, and must be substantiated by a physician's statement or some other written evidence of the emergency. A faculty member acting alone or in consultation with the Associate Dean for Academic Affairs shall either deny the request or grant the request and require the student to take the examination at a later date or comply with a new deadline.

When Request Is Denied or Extended Deferment Sought. If any request for deferment (as described above) is denied, or if a student requests a deferment for reasons or to a time that would not comply with the above policy, the student may obtain the requested deferment only by approval of the Academic Standards Committee. Appeal from a denied request or an original request for an extended deferment may be made by giving the Associate Dean for Academic Affairs a copy of the request as described above together with any appropriate supporting documents.

Completion of Examinations or Other Class-Wide Assignments. A student granted a deferment has a reasonable time after the emergency is dissipated to complete the examination or other assignment. A reasonable time is established by agreement of the Associate Dean for Academic Affairs and the faculty member.

Failure to Take Examination or Comply with Deadline. A student who fails to take an examination or comply with a deadline and who does not receive a deferment under this rule shall be penalized in whatever fashion the faculty member teaching the course deems appropriate. There is no responsibility on the part of any faculty member to accept or evaluate any work that is not done in a timely fashion unless relief has been granted pursuant to this rule.

Faculty Presence During Exams. It is the policy of the faculty of the College of Law that each faculty member either be in the law school building during his or her classroom examination or find a substitute.

Grade Recording Error. In the unlikely event that a computer or data entry error results in the reporting of an incorrect grade, the error will be corrected so that the student's grade is the one the professor intended to award for that student's work in the course, unless the student has already graduated from the College of Law.

B.2 GRADES

Grading Scale. The College of Law grading scale is as follows:

Grade	Description
A+	4.3 quality points
A	4.0 quality points
A-	3.7 quality points
B+	3.3 quality points
B	3.0 quality points
B-	2.7 quality points
C+	2.3 quality points
C	2.0 quality points
C-	1.7 quality points
D+	1.3 quality points
D	1.0 quality points
F	0.0 quality points

Semester Grade Point Average or Semester GPA. Semester grade point average is the average of all grades earned by a student in a given semester. All semester grade point averages are calculated using the grading scale of the West Virginia University College of Law.

Cumulative Grade Point Average (GPA or Cum.). The cumulative grade point average is the average of all grades earned by a student while enrolled in the West Virginia University College of Law. All cumulative grade point averages are calculated using the College of Law's grading scale. Only grades earned at the College of Law affect the law school cumulative GPA. Grades for courses taken in other WVU colleges or at other law schools are not included in the student's cumulative law school GPA.

B.3 COLLEGE OF LAW GRADING POLICY

Adopted by the College of Law Faculty – May 8, 2014
Amended (added Section F) – Sept. 24, 2014

I. FIRST YEAR CURVE

A. Curve for First-Year Doctrinal Classes

Mandatory Mean Grade: 2.95 to 3.05

Mandatory Distribution Requirements:

- 5 – 10% of the grades must be A (including A+, which should be rare)
- 5 – 15% of the grades must be A-
- 15 – 25% of the grades must be C+ or below

B. Curve for LRRW I and II

Mandatory Mean Grade: 2.95 to 3.05

Expected Distribution Requirements:

- 5 – 10% of the grades should be A (including A+, which should be rare)

- 5 – 15% of the grades should be A-
- 15 – 25% of the grades should be C+ or below

C. Intro to Legal Research

The 1-credit "Intro to Legal Research" course will not be subject to any curve.

II. UPPER CLASS CURVE

A. Curve for Classes of 30 or more students
(This curve does not apply to clinics, Trial Advocacy and other capstone courses, seminars, or graded study abroad classes. Section II.D below governs these classes.)

Mandatory Mean Grade: 3.15 to 3.25

Expected Distribution Requirements:

- 5 – 15% of the grades should be A (including A+, which should be rare)
- 10 – 15% of the grades should be A-
- 5 – 15% of the grades should be C+ or below

B. Curve for Classes of 11 to 29 students
(This curve does not apply to clinics, Trial Advocacy and other capstone courses, seminars, or graded study abroad classes. Section II.D below governs these classes.)

Mandatory Mean Grade: 3.10 to 3.30

Expected Distribution Requirements:

- 5 – 20% of the grades should be A (including A+, which should be rare)
- 10 – 20% of the grades should be A-
- 5 – 20% of the grades should be C+ or below

C. Curve for Classes with 10 or Fewer Students
(This curve does not apply to clinics, Trial Advocacy and other capstone courses, seminars, or graded study abroad classes. Section II.D below governs these classes.)

For classes this small, mean and distribution requirements are recommended rather than mandatory.

Recommended Mean Grade: 3.10 to 3.30

Recommended Distribution Requirements:

- 5 – 20% of the grades should be A (including A+, which should be rare)
- 10 – 20% of the grades should be A-
- 5 – 20% of the grades should be C+ or below

D. Curve for Clinics, Trial Advocacy and other Capstone Courses, Seminars, and Graded Study Abroad Classes
(This curve governs the class types listed in the heading. If a class falling into one of these categories has 10 or fewer students, the mandatory mean grade range is recommended, but not required.)

Classes with 11 or More Students

Mandatory Mean Grade: 3.10 to 3.50

Expected Distribution Requirements:

- 5 – 20% of the grades should be A (including A+, which should be rare)
- 10 – 20% of the grades should be A-

Classes with 10 or Fewer Students

Recommended Mean Grade: 3.10 to 3.50

Recommended Distribution Requirements:

- 5 – 20% of the grades should be A (including A+, which should be rare)

- 10 – 20% of the grades should be A-

E. Determination of Class Enrollment for Purposes of the Upper Class Curve

As slightly different curves apply to upper level classes depending on enrollment, there needs to be a set day on which a class's official enrollment is determined for purposes of the grading policy. The official enrollment for a class will be the enrollment at midnight on the final day of classes for the term.

F. LL.M. Students

In classes with only LL.M. students, the relevant section of the Upper-Class Curve (II.A-D) will apply. For example, grading in an LL.M. seminar will be governed by Section II.D.

For upper-level classes containing both LL.M. students and J.D. students, each set of students will be treated as a separate cohort for purposes of the grading policy. J.D. class enrollment will be determined by the number of J.D. students in the class, and the relevant section of the upper-class curve will apply to the J.D. students considered as a group. LL.M. enrollment will be determined by the number of LL.M. students in the class, and the relevant section of the upper-class curve will apply to the LL.M. students considered as a group.

Example 1

Energy Law has an enrollment of 32 J.D. students and 12 LL.M. students. The grades for J.D. students must conform to Section II.A; the grades for LL.M. students must conform to section II.B.

Example 2

Energy Law has an enrollment of 25 J.D. students and 8 LL.M. students. The grades for J.D. students must conform to Section II.B; the grades for LL.M. students must conform to section II.C.

B.4 PASSING GRADES AND GRADUATION CREDIT

To satisfactorily complete most courses and to earn credit toward graduation, a student must receive a grade of D or better. However, in the following courses, a student must receive a grade of C (2.0) or better to earn credit toward graduation: Legal Reasoning, Research, and Writing; Appellate Advocacy; a required seminar; and Trial Advocacy.

Students must earn a grade of C or better in at least one seminar to satisfy the seminar requirement for graduation. Students may choose to take more than one seminar. As long as the student has satisfied the seminar requirement with a C or better in at least one seminar, the student will receive graduation credit for additional seminars so long as the student attains a passing grade of D or better in the additional seminars.

Students who use Trial Advocacy to satisfy the capstone requirement must obtain at least a C to do so; students who take Trial Advocacy as an elective (i.e., they have taken and passed another capstone course) need only a passing grade for the Trial Advocacy credits to count toward graduation.

B.5 GRADES OF "INCOMPLETE" IN NON-EXAMINATION COURSES

Granting an "Incomplete." A student may request an "Incomplete" in any non-examination course. The faculty member teaching the course shall determine whether an "Incomplete" is appropriate.

Time Limit. By university policy effective for the Fall 2011 semester and beyond, a student has one semester in which to complete the requirements for any non-examination course in which he or she has been given an "Incomplete." More specifically, a student receiving an incomplete for a fall semester class must complete the work by the end of the final day of classes of the following spring semester. A student receiving an incomplete for a spring semester class must complete the work by the end of the final day of classes of the following fall semester. A student receiving an incomplete for a summer class must complete the work by the end of the final day of classes of the following fall semester.

Shortening Time Limit. A faculty member who assigns an "Incomplete" to a student may shorten the completion deadline to an earlier date than those specified in the last paragraph, but may not extend the deadline beyond that limit.

Failure to Complete. If the student does not complete the course requirements within the required time period, the "I" automatically converts to an "F."

Semester Awarded. When the student completes the course requirements, the credits are assigned to that semester in which the student originally enrolled in the course.

Shortened Time Limit for Students on Probation. Students who are on academic probation and who receive an "Incomplete" on work undertaken during the student's probationary term shall complete requirements for the course and procure the faculty member's removal of the "Incomplete" within eight weeks following the last examination date in the semester in which the student was registered for the course. Except for this reduced time limitation, all other provisions of this subsection and the "Deferment of Exams or Assignment Deadlines" subsection apply in the case of such a student on probation.

B.6 GRADE APPEAL

A student may initiate a formal grade appeal prior to the end of the seventh week of classes of the semester following the one in which the grade was awarded pursuant to the West Virginia University College of Law Grade Appeal Policy and Procedure. Students with questions about the grade appeal policy or procedure should consult the Administrative Assistant to the Associate Dean for Academic Affairs. Students who fail to begin the grade appeal process by meeting with the instructor prior to the end of the seventh week of classes of the succeeding regular (i.e., fall or spring) term have waived all rights to a grade appeal. (E.g., a student appealing a grade from a fall class would need to meet with the instructor prior to the end of the seventh week of the spring semester in order to preserve his or her right to appeal a grade.)

B.7 GRADE APPEAL PROCEDURE

Step I. The student shall discuss the complaint with the instructor involved prior to the end of the seventh week of classes of the regular (i.e., fall or spring) semester following, whether the student is enrolled or not. If the two parties are unable to resolve the matter satisfactorily or if the instructor is not available, or if the nature of the complaint makes discussion with the instructor inappropriate, the student shall notify the Associate Dean. The Associate Dean shall assume the role of an informal facilitator and assist in resolution attempts. If the problem is not resolved within fifteen calendar days from when the complaint is first lodged, the student may proceed directly to Step II. To mount a successful appeal of a grade under Steps II or III below, a student must demonstrate that the professor's actions in assigning that grade were arbitrary and capricious.

Step II. The student must prepare and sign a document that states the facts constituting the basis for the appeal within thirty calendar days from when the original complaint was lodged. Copies of this document shall be given to the instructor and to the Associate Dean. If, within fifteen calendar days of receipt of the student's signed document, the Associate Dean does not resolve the problem to the satisfaction of the student, the student will forward the complaint to the instructor's Dean. (See Step III.)

Step III. Within fifteen calendar days of receipt of the complaint, the Dean shall make a determination regarding the grade, making any recommendations for a grade change to the instructor involved. If the instructor involved does not act on the Dean's recommendation, or if the student is in disagreement with the decision of the Dean, the Dean will refer the case to a representative committee appointed by the Dean for final resolution. This committee shall consist of three or more faculty members, including at least one person outside the instructor's discipline.

1. Upon receiving an appeal, the committee will provide the grade challenge by written notification to the faculty member involved, which shall include a statement of the facts and evidence to be presented to the student.
2. The committee shall provide the faculty member involved and the student making the appeal written notification of the student's right to appear at a hearing to be held before the department, college, or school representative committee, together with notice of the date, time, and place of the hearing.
3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. The final decision of this committee shall be forwarded to the instructor and to the Dean involved. If the decision requires a change of grade, the instructor shall take action in accordance with the committee's decision.
5. If the instructor does not act within five days, the Dean shall make any necessary grade adjustment.
6. In the case of grade appeals, the Dean functions as the President's designee; therefore, implementation of this decision shall end the appeal procedure.

C. ACADEMIC STANDING

C.1 ACADEMIC DIFFICULTY

Good Academic Standing. A student is in good academic standing if that student has not been dismissed and is not on academic probation as those terms are defined in this catalog.

Repeating Courses. Receiving an F in a course does not generally require retaking the course. The F simply is added to one's GPA, and no credit hours toward graduation are given. However, if a student receives a failing grade in a course required for graduation, the student must repeat that course and receive a passing grade. If a student does not pass a required seminar or capstone course, that student may retake that seminar or capstone or take any other. When a course is repeated, both grades appear on the student's transcript, and both grades are calculated into the student's GPA, but credit toward the graduation requirement is awarded for only one enrollment.

Receiving Credit for Less Than an Entire Course. No credit is given for less than an entire course.

Grade Changes. A student may request a grade review anytime during the academic month following the student's receipt of the grade. A faculty member may not change a grade following the last day of classes in the semester following that in which a grade was awarded. Any proposed grade

change must be submitted in writing by the faculty member to the Associate Dean for Academic Affairs with stated reasons for the change. Grade changes proposed because of arithmetic errors will be approved by the Associate Dean. Grade changes proposed because of changes in evaluation must be approved by the full faculty.

C.2 ACADEMIC PROBATION & DISMISSAL

Notification. The Associate Dean for Academic Affairs notifies in writing any student who is not in good academic standing. The notice sets forth the student's academic situation and advises the student of actions available to the student under this section. The notice is sent as soon as possible after the student's academic standing is determined. Students who do not receive notice are nevertheless responsible for knowledge of their academic situation and for taking actions necessary under this section. A student is in good academic standing if that student has not been dismissed and is not on academic probation as those terms are defined in this catalog.

Summary of Probation and Dismissal Rules. For all rules regarding academic probation and dismissal, the relevant GPA figures are semester and cumulative law school GPAs. Law school GPA does not include grades earned in other WVU colleges or at other law schools. The following is a summary of the probation and automatic dismissal rules:

- **End of First Semester**. Students whose first semester grades fall below 2.30 receive a letter from the Associate Dean's Office to that effect, offering consultation and referral to the Academic Excellence Program. Such students must participate in the Academic Excellence Program in the second semester.
- **End of Second Semester Only**. Any student whose cumulative average is below 1.85 at any time after his or her second semester in law school is automatically dismissed. If a student dismissed at the end of the second semester has a GPA in any semester during the first year of less than 1.5, that student may be readmitted to the West Virginia University College of Law only by making an initial application through the admissions process. This application is only made in accordance with the regular admissions cycle, so most applicants will be required to wait a year before their application is processed. If readmitted, the applicant begins law school as if she or he were a first-time student. If a student dismissed at the end of the second semester has no GPA in any semester of the first-year curriculum of less than 1.5, that student may apply for readmission by following the procedures set forth in this handbook under "Readmission." A student is placed on academic probation when that student's cumulative grade point average falls below 2.30 but is above 1.85 after the conclusion of his or her first-year curriculum. A student on academic probation has one semester in which to raise his or her cumulative grade point average to 2.30. Failure to meet this requirement results in dismissal.
- **End of Third through Sixth Semesters:**

1. **Cumulative Grade Point Average.** Any student whose cumulative grade point average is below 1.85 at any time after his or her third semester in law school is automatically dismissed. A student whose cumulative grade point average falls between 1.85 and 2.30 any time after his or her third semester in law school is placed on academic probation. A student on academic probation has one semester in which to raise his or her cumulative grade point average to 2.30. Failure to meet this requirement will result in dismissal. Under no circumstances will a student be allowed to graduate unless his or her cumulative gradepoint average is 2.30 or better.
2. **Semester Grade Point Average**.

   *General Rule. Any student who fails to attain a grade point average of 2.30 in any individual semester of his or her second or third year in law school is placed on academic probation, regardless of his or her cumulative grade point average. This rule shall apply only to students who complete at least eleven semester credit hours of work for which they receive a letter grade (i.e., A, B etc., but not P). For purposes of this rule, first and second summer sessions count as a single semester. Accordingly, a student who took eleven or more graded hours across two summer sessions and whose GPA in those courses fell below 2.30 would be placed on academic probation under this rule.

   *Part-Time Students. A student who earns a semester grade point average lower than 2.30 over fewer than eleven letter-graded credit hours per semester for two consecutive semesters after the first year of law school is placed on academic probation, regardless of his or her cumulative grade point average. For purposes of this rule, first and second summer sessions count as a single semester. Students with a semester grade point average lower than 2.30 over fewer than eleven letter-graded credit hours for one semester must meet with the Associate Dean for Academic Affairs.

   A student placed on academic probation under "General Rule" or "Part-Time Students" will be dismissed for failure to meet academic requirements, regardless of his or her cumulative grade point average, if he or she fails to attain a semester grade point average of 2.30 or better in the next regular (i.e., fall or spring) semester. This rule applies regardless of the number of graded credit hours taken in the probationary fall or spring semester, so students who choose to take a low number of graded credit hours do so at their own risk.

- **Failing a Majority of Credit Hours**. Any student who, after completing the first-year curriculum in the West Virginia University College of Law, receives failing grades in courses aggregating one-half or more of the student's credit hour load for a given semester is dismissed. For the purposes of this rule, it does not matter what the student's grade point average is for the semester in question, nor does it matter what the student's cumulative grade point average might be. However, this rule does not apply to students taking two or fewer courses in a semester.
- **Transfer Students with a West Virginia University College of Law Grade Point Average below 2.30.** A transfer student cannot graduate from the West Virginia University College of Law if the cumulative grade point average of the grades that the student earned at the West Virginia University College of Law is less than 2.30.

- **Readmission.** Students seeking readmission should file petitions with the Chair of the Academic Standards Committee, and the petitions should demonstrate that the reasons for the student's academic deficiencies no longer exist. The Committee shall review each petition based upon this standard. The Academic Standards Committee will favorably consider a student's participation in the Academic Excellence Program in deciding on any petition for readmission following an academic dismissal. The committee will also view a student's failure to participate in the Academic Excellence Program, despite an invitation or direction to do so, as a negative factor in deciding on a petition for readmission following an academic dismissal. If the Committee denies readmission, the student may appeal to the Dean, who may remand, affirm, or reverse the Committee's decision. The Dean has the discretion to seek the advice and counsel of the full faculty. A student may petition for readmission for the semester immediately following the semester he or she is dismissed. To do so, the student must deliver a petition for readmission to the Chair of the Academic Standards Committee within ten days of his or her receipt of notification of dismissal from the Registrar. If the tenth day is a weekend or holiday, then the student must deliver the petition on the next business day. A student also may petition for readmission after two academic semesters have passed following the student's dismissal (even if the student has already petitioned immediately after his or her dismissal). For purposes of this rule, summer sessions shall not count as academic semesters.
- **Permanent Dismissal**. The West Virginia University College of Law shall not readmit any student who has been dismissed twice under these rules for failure to meet academic requirements. In addition, students readmitted through petition to the Academic Standards Committee have two semesters within which to bring their cumulative grade point average up to 2.30, as follows: (1) if the readmitted student fails to earn a 2.30 or better grade point average for the first semester following readmission, the student is permanently dismissed and is not eligible for readmission and (2) if that semester's grade point average is 2.30 or better but the cumulative grade point average remains below 2.30, the student has one additional semester in which to bring the cumulative grade point average up to 2.30. If, after that second semester following readmission by petition to the Academic Standards Committee a 2.30 cumulative grade point average has not been attained, the student is permanently dismissed and is not eligible for readmission.

D. HONORS

D.1 CLASS RANK

The following rules apply to class rank:

Top 50%. At the completion of each spring semester, students in the top 50% of the class are individually informed of their class rank in DegreeWorks. Students outside the top 50% of the class are not ranked. These rankings are not publicly announced. Students who graduate in the top 25% of their class have their class ranks noted on their university transcripts.

Grade Point Averages. The grade point averages that demarcate the top 25%, 33%, and 50% are publicly announced at the end of each spring semester.

Class Ranks. Class ranks are calculated at the completion of each spring semester.

D.2 ORDER OF THE COIF

Order of the Coif is an academic honor conferred by the faculty upon its graduates from among the top 10% of the graduating class. Coif graduates have this honor noted on their university transcripts. To be eligible for election, students must complete all of their required courses (see above "Courses Required to Graduate," pp.1-4) at the WVU College of Law. A student may transfer up to nine credit hours of a law school's regular curriculum taken at an Association of American Law Schools (AALS) approved law school during that school's academic year, summer terms on campus, or summer abroad programs approved by the ABA. For purposes of Coif, the grade(s) earned for these hours will not be averaged into the student's GPA but shall be treated as pass/fail credit. The effect of this rule is that the grade point average used for selection to the Order of the Coif is based solely on the grades earned at the West Virginia University College of Law.

D.3 ORDER OF BARRISTERS

A national honorary organization, the Order of Barristers, encourages oral advocacy and brief writing skills through effective law school moot court programs. Members of the Marlyn E. Lugar Trial Association, the Moot Court Board, and students who have outstanding oral advocacy achievements are eligible for the award. See the Associate Dean's assistant for applications in March.

D.4 PATRICK DUFFY KOONTZ AWARD

The Patrick Duffy Koontz Award is a monetary prize whose recipients are selected by the College of Law scholarship committee. The award is announced at graduation and is given to students from West Virginia who demonstrate excellence in scholarship, character, and leadership potential.

E. GRADUATION

1. Degree Works (p. 492)
2. Hours to Graduate (p. 492)
3. College of Law Graduation/Hooding Website (p. 492)

E.1 DEGREE WORKS

Degree Works is an online check sheet (audit) for students to review and monitor progress toward degree completion. It organizes academic coursework into blocks of requirements to help easily identify courses completed and what courses you still need in order to complete the degree. To access Degree Works,

- Log on to your MIX account using your MyID username and password.
- Click on the STAR tab.
- Scroll down to the 'Resources' heading and click the 'Degree Works' link.

The Degree Works audit provides a review of past, current, and planned coursework as well as information about completed and outstanding requirements. The audit is organized by 'blocks.' These blocks show what requirements are needed to graduate and show what is needed to do in order to fulfill the requirements within each block. The following 'blocks' may appear on the audit:

- Degree in Doctor of Jurisprudence: This block verifies that **all** requirements, including required courses, the minimum GPA requirement, and the ninety-one-hour credit requirement, have been met.
- Major in Law - J.D.: This block verifies that all required courses (i.e., first-year courses, Appellate Advocacy, seminar, perspective course, capstone requirement) have been completed and that any applicable grade requirements for those courses (e.g., a grade of C or better in Appellate Advocacy) have been satisfied.
- Law Courses: This block is a summation of all law courses that are being used to meet the ninety-one-hour course requirement.
- Fallthrough: The Fallthrough block is a block for courses that are not being used to satisfy any other requirements in your audit (i.e., ninety-one-hour requirement, first-year requirements). These courses count towards the total number of degree hours and GPA.
- In-Progress: This block reflects all courses currently in-progress or registered for a future semester.
- Insufficient/Withdrawn/Repeated: This block shows courses that you have withdrawn from or failed, courses that were taken more than once (but were not repeatable for credit), and audited courses.

If you are a joint-degree student (J.D./M.B.A. or J.D./M.P.A.), your Degree Works audit will reflect only work completed in the J.D. program. Because Degree Works cannot be programmed to take into account the credit hours earned for work on the other half of your joint degree, it will not accurately reflect your progress toward your J.D. If you have questions about whether you are on track, please contact the Assistant Registrar for the College of Law and/or the Associate Dean of Academic Affairs. When you have completed your joint-degree program, an annotation will appear on your transcript recording the credit hours you received for completing your joint degree program.

If you believe there is an error in your Degree Works audit, please contact the Assistant Registrar for the College of Law and/or the Associate Dean of Academic Affairs. For additional information on Degree Works, please visit the website (http://registrar.wvu.edu/dw) of the University Registrar.

E.2 HOURS TO GRADUATE

Every student must satisfactorily complete (see the "Passing Grades and Graduation Credit" subsection) ninety-one credit hours and must be in good academic standing to graduate. Except in circumstances described in the section "Earning Law School Credit Outside the Law School," all these credits must be earned at the College of Law. In any event, only College of Law courses will count as part of the student's grade point average. All students must have a cumulative grade point average of 2.30 or above (for students admitted as of Fall 2015) in order to graduate from the College of Law.

E.3 COLLEGE OF LAW GRADUATION/HOODING WEBSITE

The Graduation/Hooding website for the College of Law goes live each year in the spring. This contains all forms and information for College of Law graduates.

Externships & Pro-Bono

EXTERNSHIPS/PRO-BONO

1. EXTERNSHIP PROGRAM GUIDELINES

I. GOALS & OVERVIEW

The Externship Program is designed to provide students with an opportunity to gain practical legal experience as part of their legal education. Two general types of externships are available at the College of Law: Public Service Externships (part-time) and Federal Judicial/Federal Agency Externships (full-time). The overarching goals of the Externship program are consistent with and are designed to serve the goals articulated in the mission statement of the College of Law: "Preparing 21st century lawyers and leaders to serve the public, [and] government, . . . —both locally and globally—while focusing on justice, ethics, professionalism, and service in a diverse, vibrant and respectful community."

To that end, the Externship Program offers the opportunity to incorporate practice experience with discussion, critical thinking, reflection, and analysis. The purpose of the program is to help students in the following ways:

1. to develop the art of lawyering, including research, writing, analysis, interviewing, and communication of facts and information;
2. to identify professional goals and reflect on individual professional development;
3. to develop sensitivity to issues of professional responsibility, ethical problem solving, and the role of the lawyer in providing access to justice in society; and
4. to develop awareness of meaningful career opportunities in public interest and governmental settings and to establish relationships in chosen fields of law.

II. POLICIES & REQUIREMENTS

The Public Service and Federal Judicial/Federal Agency Externships require students to perform substantive legal work to receive academic credit. All externships must be unpaid. Additionally, student externs must be supervised at their placement by a lawyer. In addition to supervision at their placement, students are also supervised by a faculty member and are required to enroll in a one-hour course component. The course component includes class meetings, time-keeping assignments, reflective journals, and other assignments to further the experiential learning. The policies and requirements outlined below are designed to ensure a high-quality experience for students as they work toward their educational goals during their externship.

For academic planning purposes, **only one externship can be counted toward your total graduation requirement**. Further, students may receive no more than 26 total "out of classroom" credits toward graduation. This includes an externship, moot court, law review, independent study, and foreign study. This credit maximum does not include credits earned in the law school clinic. (More complete information is available in the Student Handbook.)

Students interested in any externship opportunity should meet with the Director of the Center for Law and Public Service to discuss the available placement options and eligibility requirements outlined below.

A. Externship Placements

Two general types of placements are available for students. First, students can pursue part-time externship opportunities in various Public Service Externships during the summer, fall, or spring terms. Second, students can pursue full-time externship opportunities in either a Federal Judicial or Federal Agency Externship during the fall or spring terms. A brief summary of the placement options is outlined below.

Part-time Public Service Externships may be performed with government offices or agencies, the judiciary, legal aid offices, or other non-profit or public interest organizations performing legal work. Examples of approved part-time Public Service Externships have included placements with public defenders, prosecutors, judges, legal aid offices, general counsel of universities, general counsel of non-profit hospitals, state environmental protection agencies, colleges, legislatures and legislative committees, and other non-profit or public service organizations.

Full-time Federal Judicial Externships may be performed with any federal judge at the district or circuit court level. **Full-time Federal Agency Externships** may be performed at any approved federal agency. Full-time federal agency sites have included the National Labor Relations Board, the Securities and Exchange Commission, and the Mine Safety and Health Administration. Please see the Director of the Center for Law and Public Service for a list of approved local sites.

If there is another externship opportunity that a student wants to pursue that is not on the list of approved sites, then the student should contact the Director of the Center for Law and Public Service for approval first, then apply to the office or organization. If students have questions about placements

or need advice about finding a site that best fits with their educational goals, then they should contact the Director of the Center for Law and Public Service at (304) 293-8555.

The Externship Program does not include work in the private sector, and no externships in private sector settings will be approved. All placements must be approved by the Director of the Center for Law and Public Service or the Teaching Professor for the course.

B. Field Placement Work and Credit Requirements

Work performed at the field placement for academic credit **must** be unpaid. Students must have adequate supervision, guidance, and training by a dedicated field supervisor at the site. The field supervisor **must** be a lawyer. Students may choose from three different externship types:

1. **Full-time Federal Agency Externship during the fall or spring semesters**. Externs must work full time (as defined by the site) over the course of the semester to earn 13 credits. Of those 13 credits, 6 are graded and 7 are pass/fail. The graded portion of the course is earned through enrollment in the full-time agency externship course. The pass/fail credits are earned through completing work assignments at the externship site. To qualify for this externship, students must have completed at least one year of law school, submit a letter of recommendation from a law school faculty member recommending the student for the externship, and be in the top 40% of their law school class.
2. **Full-time Federal Judicial Externship during the fall or spring semesters**. Full-time judicial externs also earn 13 credits over the course of the semester. Of those 13 credits, 6 are graded and 7 are pass/fail. The graded portion of the course is earned through enrollment in the full-time judicial externship course. The pass/fail credits are earned through completing work assignments at the judicial externship site. To qualify for this externship, students must have completed at least one year of law school, submit a letter of recommendation from a law school faculty member recommending the student for the externship, and be in the top 25% of their law school class.
3. **Part-time Public Service Externship during the summer, fall, or spring terms**. Part-time Public Service Externship opportunities are available with a federal agency or a state agency, federal or state judiciary, legal services office, or other non-profit organization. Students may earn a minimum of 3 to a maximum of 6 credits. Of those, 1 is graded and the rest are pass/fail. Students can choose to earn a variable number of pass/fail credits -- between two (2) and five (5) site placement/field work credits during the summer session or during a fall or spring semester. Students will receive one (1) academic credit for every fifty (50) hours of work performed during the chosen academic term. Students are advised to consult with the field placement supervisor to create a suitable work schedule. To be eligible, students must have completed one year of law school and be in good academic standing. Sites may require a higher standard, however.

Placement/Field Work Credits	Total Hours of Work Required	Approx. Hours of Work Per Week	Total Credit Including Course Component
2	100	7	3
3	150	11	4
4	200	14	5
5	250	18	6

C. Externship Class Requirements

Students who are selected for a full-time Federal Agency externship will enroll in Law 655 (the graded course) and in Law 656 for the field-work portion of the externship. Students who are selected for the full-time Federal Judicial externship will enroll in Law 780 (the graded portion of the course) and in Law 780A for the field work portion of the course. Students who enroll in the part-time Public Service Externship course will register for Law 653, which is the one-hour graded course, and Law 654 for the variable number of placement/field work credits.

The externship courses will meet periodically on campus during the semester and, depending on the placement site, other course meetings will be arranged online or through distance-learning technology. During the field placement for each of the externship courses, students will be required to submit the following assignments to successfully complete the course requirements:

- reflective essays or journals related to field work;
- a class presentation on a topic that draws upon the externship experience;
- discussion topics online via TWEN to facilitate student communication and foster experiential learning;
- bi-weekly time sheets documenting hours and work performed;
- supervisor evaluations (including a mid-semester and final evaluation); and
- full-time federal judicial and federal agency externs must write a substantive law-review style paper based upon an issue related to the externship placement and field work.

These assignments are designed to enhance the students' field experiences and are more fully described in the course syllabi.

III. STEPS FOR REGISTRATION AND ENROLLMENT

A. Registration

Students must attend the externship information/registration session when announced. If students cannot attend this meeting, they must set up an individual meeting with the Director of the Center for Law and Public Service or the Teaching Professor for the course. Students interested in the

Externship Program must submit a resume, unofficial transcript, cover letter, letter of recommendation (for full-time Federal Judicial or Federal Agency Externships), and a letter stating the name and contact information for the placement (or potential placement if awaiting confirmation.) Please submit a hard copy of these materials to the Director of the Center for Law and Public Service before the deadline announced each semester.

Upon approval, students will register for the appropriate externship course.

B. Receiving credit

Students will submit weekly timesheets, attend any scheduled class meetings or participate in on-line discussions, and complete all course assignments.

Students must submit the signed Externship Supervisor Agreement available on the class TWEN site.

Students must complete all field placement work in a competent and professional manner in accordance with the relevant Rules of Professional Conduct.

Students must submit a Final Evaluation from their supervisors (unless you are working with the Federal Judiciary).

IV. FIELD PLACEMENT SUPERVISION

Field placements are asked to identify one person, who must be a lawyer, who will be the student's primary supervisor and contact person for the externship. The field supervisor at the chosen placement must agree to support the student's educational goals. While a student will often perform assignments for multiple lawyers at an organization, the externship requires that one person is designated as the field supervisor and mentor for the student. The supervisor and student should meet at least once per week to review assignments and discuss questions. The supervisor will complete a final letter of evaluation to be submitted by the end of the semester.

Students are asked to coordinate with their field placement supervisors to complete the following tasks:

- meet with the field placement supervisor at the beginning of the placement to discuss the student's learning goals during the placement;

- meet with the supervisor weekly to review and evaluate assignments, overall performance, and general issues; and

- set up a final evaluation exit meeting to obtain a final evaluation form from the field supervisor and submit it to the Teaching Professor for the course. The final evaluation form must also include a certification of hours from the Field Placement Supervisor.

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2. PRO-BONO

The Center for Law and Public Service promotes public service opportunities for law students, including opportunities for pro bono work. The term "pro bono" means "for the public good." In the legal profession, pro bono work refers to work that is performed voluntarily and free of charge.   Pro bono service is the responsibility of all members of the legal profession. WVU's pro bono program allows law students to begin pro bono service now and encourages students to develop a lifelong commitment to pro bono work.

The WVU College of Law pro bono program partners with legal services organizations and community agencies to provide opportunities for law students to serve those in need.   Pro bono projects will be designed to aid individuals or families of limited means; charitable, community and governmental organizations who provide assistance to those of limited means; and activities for improving the law, the legal system, or the legal profession. Pro bono work may not be for credit and will not include work done for a clinic or externship.   All pro bono work must be supervised by a licensed attorney and will be tracked by the Center for Law and Public Service.

Professional Responsibility and Bar Admission

A. PROFESSIONAL RESPONSIBILITY

1. About the Student Code of Professional Responsibility
2. Dismissal for Misconduct
3. Academic Rights and Responsibilities (WVU)

B. WVU COLLEGE OF LAW STUDENT CODE OF PROFESSIONAL RESPONSIBILITY

1. The Ethics Council
2. Academic Responsibility and Duties
3. Adjudicatory Procedures
4. Faculty Review
5. Sanctions
6. Appeal

C. BAR ADMISSION

A. PROFESSIONAL RESPONSIBILITY

A.1 ABOUT THE STUDENT CODE OF PROFESSIONAL RESPONSIBILITY

The students and faculty of the College of Law have adopted a Code of Professional Responsibility to prevent and punish academic misconduct by students in the College. A copy of that Code is included in this Student Handbook and is binding on all students. Enforcement of the Code rests principally in the hands of the student body with oversight by the faculty and the designee of the President of the University. Infractions are investigated and adjudicated by the Student Ethics Council.

A.2 DISMISSAL FOR MISCONDUCT

In view of its public and professional responsibilities with respect to admission of candidates to the practice of law, the West Virginia University College of Law reserves the right to drop any student from the rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the legal profession. Dismissal is considered whenever a student is involved in serious criminal conduct or conduct that would justify professional disciplinary action if the person were a lawyer. Students remain subject to all general rules and regulations of the University and the West Virginia Board of Governors and to the Student Code of Professional Responsibility.

A.3 ACADEMIC RIGHTS AND RESPONSIBILITIES (WVU)

The Office of Student Conduct, located in Boreman North, is staffed by a member of the Office of Student Life and is available to assist any student, student organization, staff member, faculty member, or administrator in understanding and applying the West Virginia University Campus Student Code (http://studentlife.wvu.edu/r/download/180235). Should you have any questions or concerns, please contact LiDell Evans or the Office of Student Conduct at 304-293-8111. In case of conflicts, the Law Student Code of Professional Responsibility controls.

B. WVU COLLEGE OF LAW STUDENT CODE OF PROFESSIONAL RESPONSIBILITY

Preamble. The cornerstone of our legal system is the integrity of the individual lawyer. As future lawyers, our conduct is governed by the highest standards of ethics. As students enrolled in the West Virginia University College of Law, we recognize and accept the following standards, obligations,

and responsibilities as governing our actions and conduct. This Student Code of Professional Responsibility (the "Student Code") is intended to supplant Article III, B.1., governing acts of academic dishonesty, of the West Virginia University Student Conduct Code for students enrolled in the College of Law.

THE ETHICS COUNCIL

A. Composition

1. There is hereby created an Ethics Council composed of three members from each class.

2. The members of the Council shall be elected at the end of the spring semester in conjunction with the election of class officers. Any student, full or part time, who is in good academic standing, shall be eligible to run for a seat on the Ethics Council. An elected member of the Ethics Council must relinquish the office if he/she fails to remain a student in good academic standing. First-year members shall be elected in the fall of their entering year. Such elections shall be conducted by the Student Bar Association. The terms of office for the members of the Ethics Council shall run from their election to the election of their successors, with the following qualifications:

   a) The terms of graduating members shall expire on graduation;

   b) The terms of members who are in the process of hearing a case when their successors are elected shall be extended to allow the members to complete the proceeding;

   c) The elected representatives of the second- year class to the Ethics Council not reelected in the spring election and, if necessary, the elected representatives of the first year class not re-elected in the spring election, shall continue to serve until the election of the first- year class members of the Ethics Council. Upon the election of the first-year representatives to the Ethics Council, the holdover members' term shall end.

3. A vacancy on the Ethics Council shall be filled by appointment by the remaining members of the Ethics Council. The individual selected to fill the vacancy shall be a member of the class in which the vacancy occurs. The appointee shall serve for the remainder of the unexpired term.

4. The Chairperson shall be elected from among the third-year class representatives to the Ethics Council within two weeks of the election of the first- year class representative. From the time of the election of the representatives of the Ethics Council in the spring semester until the selection of the Chairperson after the first-year election in the fall semester, the rising third-year student to receive the greatest number of votes in the most recent election shall serve as Chairperson.

B. Investigative Panel and Hearing Panel

1. Composition: Following the elections in the spring semester, after the election of the Chairperson in the fall semester and at the beginning of the second semester, the Chairperson shall appoint from the members of the Ethics Council an Investigative Panel of three persons, no more than two of whom shall be from the same class in law school. The Chairperson of the Ethics Council shall designate one member of the Investigative Panel to serve as its Chairperson.

2. Duties: The Investigative Panel shall investigate and collect evidence and information concerning any complaints involving an alleged violation of this Student Code. Upon completion of the investigation, the Investigative Panel shall take action as set forth in Section III (A)(1).

3. Hearing Panel: The remaining members of the Ethics Council will serve as the Hearing Panel for the purpose set forth in Section III (C).

C. Quorum and Margin of Decision:

1. Two members shall constitute a quorum for the Investigative Panel, and the decision to charge a violation of the Student Code must be concurred upon by two members of the Investigative Panel.

2. Four members shall constitute a quorum of the Ethics Council Hearing Panel, and the vote of sixty percent of those in attendance shall be necessary to find a violation of the Student Code. For all other purposes, a simple majority shall decide issues which may arise, including votes on recommended sanctions.

D. Duties of the Ethics Council:

1. The Ethics Council shall promulgate, consistent with the provisions of this Student Code, such rules and regulations and prescribe such procedures as shall be necessary and proper to fairly and impartially fulfill its obligations under this Student Code. Upon the approval of the faculty, the rules and regulations shall become final unless subsequently amended as provided for in this paragraph.

2. Before each examination period, the Ethics Council shall take appropriate action to remind the student body of its obligation and responsibilities under the Student Code.

3. At the beginning of each school year, the Ethics Council will make a presentation on the Student Code as part of the orientation of incoming students.

4. The Ethics Council shall be responsible for the investigation and adjudication of alleged violations of this Student Code as set forth herein.

ACADEMIC RESPONSIBILITY AND DUTIES

A. Academic Responsibility. The West Virginia University College of Law expects every member of its academic community to share the historic and traditional commitment to honesty, integrity, and the search for truth. In keeping with this spirit, it shall be a violation of this Student Code for any student or applicant for admission to commit any act of academic dishonesty, which is defined to include, but is not limited to, the following:

1. Plagiarism: Plagiarism is defined in terms of proscribed acts: Students are expected to understand that such practices constitute academic dishonesty regardless of motive. Those who deny deceitful intent, claim not to have known that the act constituted plagiarism, or maintain that what they did was inadvertent are nevertheless subject to penalties when plagiarism has been confirmed. Plagiarism includes, but is not limited to, the following:

a. Submitting as one's own work the product of someone else's research, writing, artistic conception, invention, or design; that is, submitting as one's own work any report, notebook, speech, outline, theme, thesis, dissertation, commercially prepared paper, musical piece or other written, visual, oral or electronic/computerized material that has been copied in whole or in part from the work of others whether such source is published or unpublished;

b. Incorporating in one's subm ission, without appropriate acknowledgment and attribution, portions of the work of others; that is, failing to use the conventional marks and symbols to acknowledge the use of verbatim and near-verbatim passages of someone else's work or failing to name the source of words, pictures, graphs, etc., other than one's own, that are incorporated into any work submitted as one's own.

c. A student has a duty to report any other student(s) that he/she sees violating this rule against plagiarism in any way.

Every professor is allowed to establish a collaboration policy for his/her own course. Please refer to the course syllabus to learn what is permissible. However, one should always assume that collaboration is not permitted, unless the syllabus or professor specifically allows it.

2. Cheating and dishonest practice in connection with examinations, papers and projects, including but not limited to:

a. Obtaining help from another student during examinations;

b. Knowingly giving help to another student during examinations, taking an examination or doing academic work for another student, or providing one's own work for another student to copy and submit as his/her own;

c. The unauthorized use of notes, books, or other sources of information during examinations;

d. Obtaining without authorization an examination or any part thereof;

e. Obtaining without authorization any help from another student.

f. Forgery, misrepresentation, or fraud: Forging or altering, or causing to be altered, the record of any grade in a grade book or other educational record; Use of university documents or instruments of identification with intent to defraud; Presenting false data or intentionally misrepresenting one's records for admission, registration, or withdrawal from the university or from a university course; Knowingly presenting false data or intentionally misrepresenting one's records for personal gain; Knowingly furnishing the results of research projects or experiments for the inclusion in another's work without proper citation; Knowingly furnishing false statements in any university academic proceeding. It is a violation of the Code for any student who witnesses a Student Code violation or who has credible information that a violation was committed to fail to report the violation to the Ethics Council, a faculty member, or a dean.

It is a violation of the Student Code for any student or applicant for admission at anytime to intentionally lie, give false information, make material misrepresentations, or omit material facts to the faculty, administration, or any student organization in the course of the academic, extracurricular, co- curricular, admissions, or placement programs of the College of Law. It is a violation of the Student Code for an officer or member of a student organization to (a) discourage observing members from reporting questionable conduct to the Ethics Council, or (b) sanction an organization member for reporting possible violations of the Student Code to the Ethics Council.

It is a violation of the Student Code for any student to refuse to cooperate with the Ethics Council in its conduct of an investigation or hearing.

B. Duties

1. Faculty members have a responsibility to support and enforce the Student Code and should report suspected violations to the Ethics Council.

2. If a faculty member reduces a student's grade because of a suspected violation of the Student Code, the faculty member must give the student written notice of the fact and size of the penalty. If the faculty member learns of the suspected violation after grades were submitted, the faculty member may reduce the student's grade upon notice to the student and without faculty approval.

3. If the student elects not to contest the grade reduction, that reduction shall become final and no further action, pursuant to this Code, shall be taken. If the student whose grade has been reduced because of a suspected violation elects to contest the grade, he or she may do so by invoking the procedures described in Part III, below. The faculty member's notice to the student shall then serve as a complaint to the Ethics Council, and

the Council shall process the charge as it would any other. Both the Ethics Council and, if review is sought, the faculty, retain the discretion to overrule, decrease, or increase the penalty imposed by the faculty member and to assess any other sanction in addition to or instead of the original penalty. In all cases in which a student challenged a grade that was reduced because of a suspected violation of the Student Code, the procedures in Part III shall supersede the normal grade appeal procedures as to all issues relating to academic dishonesty.

III. ADJUDICATORY PROCEDURES

A. Complaint

1. Initial Inquiry: Upon receipt of a complaint alleging a violation of the provisions of this Student Code, the Chairperson of the Investigative Panel of the Ethics Council will convene a meeting of the Investigative Panel. The Investigative Panel will convene within seven calendar days from receipt of the complaint when classes are in regular session; or within four days after classes resume if the complaint is received during a period in which classes are not scheduled to meet including examination periods. It shall be the duty of the Investigative Panel to conduct such investigations as necessary, being as discrete as possible, into the allegations. When the initial inquiry is completed, the Investigative Panel shall either (1) close the case by recording its findings of fact and conclusion that no violation occurred and providing the charged student(s) with a copy (with the name of any complaining student deleted); or (2) upon a finding concurred in by two or more of its members that there is reason to believe a violation of the Student Code exists, institute a formal investigation of the charges.

2. Formal Investigation: If the Investigative Panel determines there is reason to believe a violation of the Student Code has occurred, it shall select one or more of its members or some other student enrolled within the College of Law to serve as Presenter of the alleged violation. In deciding who should serve as Presenter, the Investigative Panel shall consider:

   a) The student's ability to perform the duties of Presenter with discretion and without prejudice;

   b) Whether personal relations with the accused or known witnesses would inhibit or unduly influence the performance of his or her duties;

   c) Whether the reported violation occurred during a course of activity in which he or she has an interest; and

   d) any other conflict.

3. When the Investigative Panel reports to the Hearing Panel that probable cause for a violation exists, the Ethics Council Hearing Panel will contact the accused in writing and inform him or her:

   a) of the alleged violation and course of conduct to be investigated as a violation of the Student Code; and

   b) that he or she is entitled to be assisted by an advisor of his or her choice, provided, however, the advisor may not be a member of the College of Law faculty. The advisor may fully represent the student in all capacities as the accused finds necessary.

B. Procedure

1. Within twenty regularly scheduled class meeting days after his or her appointment, the Presenter will complete the investigation of the charges and will prepare a written account of the relevant facts.

2. Upon completion of the investigation, the Presenter will meet with the Ethics Council Investigative Panel and present a detailed summary of the result of the investigation. If it is reaffirmed that probable cause for a violation exists, the Investigative Panel shall advise the Chairperson of the Ethics Council Hearing Panel of the formal charges and request a date for a hearing. At least twenty regularly scheduled class days before the hearing date, the Chairperson of the Hearing Panel will notify the accused, in writing:

   a) of the date, time, and place of the hearing;

   b) of the specific charges and course of conduct alleged to constitute a violation of the Student Code; and

   c) that he or she is entitled to the assistance of an advisor of his or her choice provided, however, the advisor is not a member of the College of Law faculty. The advisor may fully represent the student in all capacities as the accused finds necessary or appropriate.

3. If upon hearing the report of the Presenter, the Ethics Council Investigative Panel concludes probable cause for a violation does not exist, it shall dismiss the charges.

4. If the matter is dismissed, the Ethics Council Investigative Panel will notify the accused, in writing, of the final disposition of the complaint. Once a matter is finally disposed of at this stage, it shall not be re-opened by the Ethics Council, but the decision to dismiss may be appealed to the faculty pursuant to III(C)(6).

5. Should a violation occur at the end of a semester, the Ethics Council shall delay the proceedings until the next semester unless the accused makes a written request to expedite the matter and the Ethics Council concludes that the matter may be fairly adjudicated. The accused's ability to prepare and present his or her defense shall be a persuasive factor. If the violation involves a "graduating senior," see sections V and VII.

6. Upon a showing of good cause, the time periods set forth in this section may be altered by the Ethics Council Hearing Panel.

C. Hearing

1. The Chairperson will preside over the hearing which may be attended by all members of the Ethics Council, the accused, the accused's advisor, and testifying witnesses. Members of the Hearing Panel shall have the duty to disqualify themselves from the Hearing Panel if they believe that they cannot reach an impartial decision, if there is a conflict of interest, or if he or she has a personal involvement in the matter. Once a member has disqualified him or herself, he or she shall not participate any further in the proceedings against the accused. In addition, the student accused of a violation of the Student Code shall have the right to challenge a member of the Hearing Panel for good cause shown. Upon such a challenge, the remaining unchallenged members of the Hearing Panel shall decide the merits of the challenge. Except for witnesses, who shall be sequestered, the hearing will be open to the public unless the accused requests a closed hearing. A request for a closed hearing must be made in writing to the Chairperson at least forty-eight hours before the scheduled time of the hearing. It shall be within the discretion of the Hearing Panel to grant the accused's request for a closed hearing.

2. At the hearing, it will be the duty of the Presenter to seek the truth. The accused may rebut any testimony presented and present his or her defense or proof of such mitigating circumstances as the accused deems necessary or appropriate, or both.

3. The hearing will be conducted under the following rules of procedure:

    a) the Ethics Council Hearing Panel may admit and give probative effect to evidence, including hearsay which possesses probative value. It may exclude incompetent, irrelevant, immaterial, and unduly repetitious evidence;

    b) documentary evidence may be received in the form of copies, excerpts, or incorporated by reference;

    c) the accused and the Presenter will have the right on every issue:

        i) to call witnesses and present evidence;

        ii) to cross-examine all witnesses called to present evidence at the hearing;

        iii) to examine and rebut all documents;

        iv) to submit rebuttal evidence; and

        v) to present summation and argument.

    d) The Hearing Panel shall decide the issue of guilt solely upon the evidence presented at the hearing. The burden of proof required to sustain any violation of the Student Code lies with the Presenter. The standard of proof is by a preponderance of the evidence.

4. At the conclusion of the hearing, the Ethics Council Hearing Panel will resolve the issue of guilt of the accused.

    a) Within two regularly scheduled class days, but in no event more than seven days, of the conclusion of the hearing, the Ethics Council Hearing Panel will inform the accused, in writing, of its decision, and if guilty, the sanctions it will recommend.

    b) If the accused is found to be not guilty, the Ethics Council shall set forth its findings in writing and dismiss the charges with prejudice and any and all records except the academic records, examination, or seminar papers of the College of Law, will be sealed and, after the expiration of any appeal time, may be destroyed with the written consent of all parties. A decision of not guilty may be appealed to the faculty by the Presenter or by the faculty member whose course is involved, if any, or the advisor of the co-curricular or extracurricular activity, if one is involved.

    c) If the accused is found guilty of a violation of the Student Code, the Ethics Council Hearing Panel will prepare a complete report of findings of fact, together with a recommendation of sanction, and submit the report, in writing, to the Associate Dean for Academic Affairs (hereinafter the Associate Dean) for faculty action. Notice of such submission and a copy of such shall be given promptly to the accused. The accused may also submit his or her written recommendations of sanctions or explain mitigating circumstances. The accused shall have the right to appeal to the faculty.

    d) An appeal to the faculty of the College of Law of a decision by the Ethics Council Hearing Panel shall be made in writing, within thirty calendar days from the date of written decision of the Ethics Council Hearing Panel.

IV. FACULTY REVIEW

A. Scope of Review. It is expressly provided that all findings of guilty or not guilty, dismissal, or the recommended sanctions may be appealed to the College of Law faculty. Upon appeal, the faculty shall have the discretion (1) to review the records from the Ethics Council Hearing Panel, (2) to permit appellate argument on the record of the proceedings before the Ethics Council Hearing Panel, or (3) to hear the case de novo. The faculty may review the legal standards applied by the Ethics Council and procedures it employed.

B. Procedure:

1. The Associate Dean or the Associate Dean's designee shall preside at the faculty hearing.

2. For the purposes of an appeal under the Student Code, the faculty shall consist of those individuals entitled to attend executive sessions of the faculty.

3. Any faculty member who has a conflict of interest or personal involvement in the matter shall excuse himself or herself from hearing the case on appeal. The accused shall have the right to challenge a faculty member for good cause shown. Upon such challenge, the remaining unchallenged members of the faculty shall decide the merits of the challenge.

4. A majority of the faculty entitled to hear the case shall constitute a quorum.

5. A vote of sixty percent of the faculty hearing an appeal shall be necessary to find a student accused of violating the Student Code guilty. All other matters, including a recommendation of sanctions if the student is found guilty, shall be resolved by majority vote.

6. The accused shall have the right to be assisted by an advisor at all proceedings before the faculty on appeal, provided, however, the advisor shall not be a member of the College of Law faculty.

7. If the proceeding before the faculty is a de novo hearing, the rules set forth in III (C) shall apply, including the standard of proof.

8. If the proceeding before the faculty is a review of the record or a review of the record with arguments, the Ethics Council's Hearing Panel shall be affirmed if its decision is supported by substantial evidence.

9. If the appeal from the Ethics Council concerns only the recommended sanction, then all arguments to the faculty shall be submitted in writing and without oral arguments.

10. In the event of an appeal of a decision of the Ethics Council, the Associate Dean for the College of Law shall designate the Presenter, provided, however, the Presenter shall not be a member of the College of Law faculty.

11. The Associate Dean shall establish such additional procedures as necessary and as are consistent with the Student Code for conducting appeals from the Ethics Council Hearing Panel.

C. Faculty Decision. Consistent with the ABA Standards and its Interpretations (Standard 205), the decision of the faculty shall be final subject only to an appeal as set forth in Section VI. If the decision of the faculty is guilty, the faculty shall recommend appropriate sanctions to the Associate Dean.

V. SANCTIONS

A. Overview. The following sanctions are not intended to constitute the exclusive list of sanctions which may be recommended to the Associate Dean of the College of Law by the Hearing Panel or the faculty.

1. Reconsideration by the professor of the grade or credit to the violator of the specific course involved;

2. Written reprimand to be placed in a student's College of Law academic file;

3. Ineligibility to participate in any co-curricular activity, or to receive a scholarship, loan, grant in aid, or employment, any of which are administered by the College of Law;

4. Suspension for one or two semesters, the first being the semester during which the offense occurred; or

5. Dismissal from the College of Law.

B. Imposed Sanctions. The sanctions imposed shall be commensurate with the nature of the violation. Failure to report a violation shall constitute grounds for the sanction of public censure, written reprimand placed in a student's academic file, or ineligibility to participate in any co-curricular activities.

VI. APPEAL

An appeal of the faculty's decision or the sanctions imposed by the Associate Dean may be made to the Dean of the College of Law who, pursuant to the provision of Section 6.3.4 of the West Virginia University Board of Governors Policy 15, Student Academic Rights, has been designated by the President of West Virginia University as the President's designee to hear such appeals. Before reaching a decision on the Appeal, the Dean, as the designee of the President, shall consult with University Counsel to assure that all applicable procedural policies and rules have been followed. Following this consultation with University Counsel, the Dean shall render his or her decision within thirty calendar days after the receipt of written notice of the appeal. The decision of the Dean, as designee of the President, shall be final.

VII. COMPLAINTS AGAINST GRADUATING STUDENTS

If a complaint is received by the Ethics Council within the fourteen calendar days preceding the date of graduation of the accused student, the Ethics Council has authority to expedite the procedure outlined so long as the Ethics Council believes that the matter may be fairly adjudicated. If the Council concludes the matter cannot be fairly adjudicated before graduation, the student's diploma will be withheld pending resolution of the charge. If the

accused is found guilty of a violation of the Student Code, the Ethics Council may recommend that he or she not be allowed to graduate from the College of Law or that graduation be delayed until prescribed conditions are met.

VIII. MISCELLANEOUS PROCEDURES

All hearings described in Section III will be documented and a record maintained. A permanent record of all documents will be kept for all findings of guilt by the Ethics Council. For findings of not guilty, all such documents, except records the College of Law maintains for all students as a normal part of the records, will be sealed, and, with the written consent of all parties, destroyed after expiration of the appeal period. An audiotape or written transcript of the hearing delineated in Section III (C) shall be made and provided for use on appeal. Thereafter, it may be destroyed.

IX. AMENDMENT OR REPEAL PROCEDURE

A. Student-Initiated Amendment or Repeal. This Student Code may be amended or repealed at any time. In order to initiate such amendment or repeal, a petition which sets forth the proposed amendment or calls for the repeal of this Student Code that contains the signatures of fifteen percent of the entire student body of the College of Law shall be presented to the Ethics Council. The proposed amendment or petition to repeal shall be posted for two weeks upon the appropriate bulletin boards within the College of Law. Approval of sixty percent of the student body shall be required for adoption of the amendment or repeal of the Student Code. The election shall be by secret ballot.

B. Ethics Council or Faculty-Initiated Amendment or Repeal. Amendment or repeal may also be proposed by a resolution approved by either a majority of all the members of the Ethics Council or a majority vote of the faculty. An amendment or repeal of this Code shall be effective upon ratification by the College of Law faculty.

C. Invalidation. Invalidation of any part of this Student Code for any reason shall not affect the validity of the rest of the Student Code.

X. ADOPTION PROCEDURE

This Student Code must be ratified by the faculty of the College of Law followed by approval of sixty percent of the students. The students shall vote in a referendum by secret ballot. The election shall be conducted by the Student Bar Association.

Adopted: April 4, 1991

Last Revised: July 1999

C. BAR ADMISSION

An ex-president of West Virginia University, who now teaches at the College of Law, likes to remind incoming law students that they are not going TO law school, but rather THROUGH law school.[1] He is right. New law students should realize that the first day of law school is actually the first day of a career as a lawyer. The first thousand days of that career (approximately) will be spent in studying how to be a lawyer and making strategic choices that help assure successful completion of a state bar exam and successful admission to practice.

[1] Professor David Hardesty.

C.1 ADMISSION TO PRACTICE

A lawyer may not practice without a license. Because each state establishes its own licensing procedures, the process of admission to practice varies from state to state. Although the application is typically submitted to the state in the spring semester of the third year of law school, some states require early notice of an intent to practice within the state's borders. Some even permit a law student to begin the application process early in the law school career at a significantly reduced price. Obviously, every first-year law student should review the application rules in the states where the student plans to practice.

The National Conference of Bar Examiners (NCBE) maintains a website that includes state-by-state bar admission information that is regularly updated with contact addresses, phone numbers, and web sites where application procedures can be reviewed. Access the NCBE website at this address: www.ncbex.org.

Each state's admission process includes a character and fitness review that takes place after graduation. The character and fitness review is essentially a background check to assure that the applicant will practice law competently and ethically. The review is comprehensive but particularly scrutinizes the applicant's record during the three years of law school. Hence, it is particularly important that incoming law students adopt a professional persona that evolves positively during the law school career. For example, a law student who blemishes his or her reputation with substance abuse offenses

may be delayed in the admission process until the state's character and fitness committee is assured that the applicant has resolved all issues that might negatively impact the applicant's ability to practice law competently and ethically. On the other hand, if an applicant has a past history of substance abuse, but has faced and solved that problem, past events are unlikely to prevent the applicant from being admitted to practice.

C.2 THE BAR EXAM

Because each state decides how to structure its bar exam, every first-year law student should research the specifics of the exams in the states where the student will practice. The NCBE creates a national bar admission exam that consists of four parts: the Multistate Bar Exam (MBE) (200 multiple-choice questions); the Multistate Professional Responsibility Exam (MPRE) (50 multiple-choice questions); the Multistate Essay Exam (MEE) (six essay questions); and the Multistate Performance Test (MPT) (three ninety-minute questions that focus on a practical lawyering task). Almost every state has adopted one or more of these national tests as part of the state-specific exam.

Almost every state's bar exam also has a state-created component. Thus, a state's bar exam can consist of NCBE components and state-specific components, and a law student who wishes to be prepared for the exam must research the exam format as well as the subjects tested by the exam.

Careful planning of coursework during law school can help assure that the student is well prepared for the exam. Although a student need not take every course tested by the bar exam, the summer bar exam prep period is too short to self-teach all the subjects that are tested. Hence, a law student should plan law school coursework with an eye toward being prepared.

West Virginia's bar exam consists of all four tests created by the NCBE. Most students take the Multistate Professional Responsibility Exam after finishing the second year of law school. The post-graduation bar exam given in July consists of the Multistate Bar Exam, Multistate Essay Exam, and Multistate Performance Test. The following subjects are tested:

Subjects tested by the MBE:

- Constitutional Law
- Criminal Law
- Criminal Procedure
- Evidence
- Real Property
- Contracts/Sales
- Torts
- Federal Civil Procedure (beginning in 2015)

Subjects tested by the MEE:

- Business Associations (Agency and Partnership; Corporations and Limited Liability Companies)
- Conflict of Laws
- Constitutional Law
- Contracts
- Criminal Law
- Criminal Procedure
- Evidence
- Family Law
- Federal Civil Procedure
- Real Property
- Torts
- Trusts and Estates (Decedents' Estates; Trusts and Future Interests)
- Uniform Commercial Code (Secured Transactions)

C.3 ACTION CHECKLISTS FOR LAW STUDENTS

The following checklists can help a law student stay on-track for successful completion of the bar exam and the admission to practice process.

1L YEAR:

- Check the state's website for licensing requirements and bar exam information.
- Make a note of the subject matter covered by the state exam and use this information in planning coursework during the three years of law school.
- If your state permits early application, consider applying now to save money.

- If you have character and fitness review concerns because of past or present events, start resolving those issues now. The same advice applies to financial issues that affect your credit history.
- Note whether your state requires the applicant to complete service hours while in law school (some states now require applicants to have completed a certain number of hours in an experiential learning environment prior to application).
- Start saving for the 3L expenses of graduation, admission to practice, and a bar exam prep course. Plan on having at least $8,000 to cover these costs and summer expenses.

2L YEAR:

- Review the 1L Year checklist and update.
- Complete the Professional Responsibility course and take the MPRE during the summer.
- Revisit the state's website to note any possible changes.
- Plan your coursework strategically.

3L YEAR:

- Do a transcript check in the fall. Will you graduate as planned?
- Visit the website of the West Virginia Board of Law Examiners (or the website in the state where you will take the bar).

  1. Print and read the bar application materials.

     A. What are the state's licensing requirements?

     B. What is the deadline for the application?

     C. What fees are applicable? Do I need financial help?

     D. Where will I complete the character review?

     E. What can I do now to start the process?

     F. Are there other deadlines?

  2. Understand the Bar Exam.

     A. What are the dates/location of the bar exam?

     B. What kinds of tests are on the bar?

     C. What subjects will be tested?

     D. How are the tests scored?

     E. What is the "passing" score?

- Visit the website of the National Conference of Bar Examiners (http://www.ncbex.org) at the end of the first semester and begin the application for admission no later than January 1. (The application can take weeks to complete with all the required information.)
- Learn as much as you can about the review programs for the bar exam, e.g., Kaplan and Barbri. Choose one comprehensive program, pay for it, and get the books early for an early start!
- Assess the degree to which you are at risk for not passing the bar exam. Then make a plan to build on your strengths and minimize those risks.
- Make a realistic plan for your summer that includes at least 600 hours of on-task study time prior to the exam (the number of hours that most students say it takes to be ready for the exam).

NOTE: If any change to your student record occurs at any point (DUI, arrests, etc.), you must notify the Assistant Dean for Student Affairs and produce the information in written form for your student file. The Board of Bar Examiners will expect the information they review regarding your record to match what the College has on record in your student file.

Social Justice Policies

A. NON-DISCRIMINATION AND EQUAL OPPORTUNITY

B. STUDENTS WITH DISABILITIES

C. SEXUAL HARRASSMENT

A. NON-DISCRIMINATION AND EQUAL OPPORTUNITY

The West Virginia University College of Law is an affirmative action/equal opportunity institution. The College does not discriminate on the basis of age, color, disability, national origin, race, religion, sex, sexual orientation, or veteran status in the administration of any of its education programs or activities or with respect to admission and employment.

The College neither affiliates knowingly with nor grants recognition to any individual, group, or organization having policies that discriminate on the basis of age, color, disability, national origin, race, religion, sex, sexual orientation, or veteran status as defined by the applicable laws and regulations.

Implementation of this policy is spelled out in the West Virginia University Student Handbook and in other pertinent University documents.

B. STUDENTS WITH DISABILITIES

Students with disabilities receive appropriate accommodation on a case-by-case basis. Any student seeking an accommodation must submit proof of disability to the University Office of Accessibility Services (304-293-6700) and obtain from that office a letter setting forth recommended accommodations. That student shall present that letter to the Assistant Registrar for the College of Law, who shall arrange appropriate accommodation. If the disability arises from an emergency illness or injury, the student shall notify the Associate Dean of Academic Affairs as soon as the emergency occurs and shall complete the process under the direction of the Associate Dean. No student may receive retroactive accommodation for any disability.

C. SEXUAL HARRASSMENT

The College of Law liaison for sexual harassment for faculty, staff, and students is Janet Long Armistead (Janet.Armistead@mail.wvu.edu), Assistant Dean for Student Affairs. Discussions are in complete confidence, and most problems can be resolved without the involvement of anyone other than the liaison and the persons directly involved. Services are also available to students, staff, and faculty through the liaison's access to educational materials.

Student Organizations, Guidelines, and Services

A. COLLEGE OF LAW ORGANIZATIONS

1. Co-Curricular Organizations
2. Recognized College of Law Student Organizations
3. Directory of Administrative Personnel for Student Organizations
4. Rules and Policies for Student Organizations

B. STUDENT TRAVEL

C. CONSTITUTION OF THE SBA

D. COLLEGE OF LAW SERVICES

1. Academic Excellence Program
2. Professional Writing Center
3. Meredith Career Services Center
4. College of Law Bookstore and Café
5. Financial Aid
6. Scholarships
7. Technology Services
8. Communications
9. Web Information

E. UNIVERSITY SERVICES

1. General Information
2. Health Services
3. Student Activities and Organizations

A. COLLEGE OF LAW ORGANIZATIONS

1. Co-Curricular Organizations (p. 506)

Student organizations are a vital part of the College of Law culture. Involvement promotes contact with other students who share your interests and provides opportunities to develop skills outside the classroom setting.

For any question regarding Student Affairs Services, please contact Janet Armistead, Joy Fryson, and/or the Associate Dean of Academic Affairs.

Associate Dean of Academic Affairs
John E. Taylor
Phone: 304-293-8180
Email: john.taylor@mail.wvu.edu

Assistant Dean for Student Affairs
Janet Armistead
Phone: 304-293-7320
Email: janet.armistead@mail.wvu.edu

Administrative Assistant
Joy Fryson
Phone: 304-293-6819
Email: joy.fryson@mail.wvu.edu

A.1 CO-CURRICULAR ORGANIZATIONS

1. Law Review

The West Virginia Law Review is a professional, student-governed legal journal that publishes articles of interest to legal scholars, students, legislators, and members of the practicing bar. Founded in 1894, the West Virginia Law Review is the fourth oldest law review in the United States and publishes three issues each year. Student members of the Law Review write, solicit, select, and edit articles and are involved in all stages of preparing issues for publication.

Membership on the Law Review is available only to second- and third-year students. To be eligible for membership, students must obtain a minimum GPA of 2.5 in first-year courses. Law Review participants who complete membership requirements receive up to four hours of credit.

Invitations for membership are based on a summer writing competition where students must write a short student article on a predetermined issue of law. After the write-on competition, there are two ways in which students are extended membership: 1) academic performance combined with writing score or 2) writing score alone. For students ranking in the top fifteen percent of their class at the end of the first year, the student article accounts for thirty-five percent of the total score, and first-year grades account for sixty-five percent of the total score. For all other students, the student article accounts for 100 percent of the total score. The number of invitations extended in this competition is dependent upon the quality of papers submitted. The maximum Law Review membership is forty-two students.

2. M.E. Lugar Trial Association

The Lugar Trial Association is a co-curricular course designed to assist students in developing litigation skills through a mock trial program. Teams of students compete in a minimum of four mock trials per year, as well as participate in various other trial competitions. Each trial is presided over by a practicing attorney or judge, and following the trial, each advocate is critiqued by the judge. Membership is available to second- and third-year students who have completed the Trial Advocacy course with a grade of B or better. If more than thirty students wish to participate, members will be selected by lottery. Students who successfully complete the requirements receive up to three hours of credit.

3. Moot Court Board

Moot Court Board is a co-curricular organization designed to recognize and reward students for their oral and written appellate advocacy skills, as well as strengthen and further refine those skills. Board members compete in and manage the George C. Baker Cup intramural appellate moot court competition; participate in various intercollegiate, national, and international moot court competitions; and conduct monthly meetings. Each member is required to compete in an "outside" interscholastic competition.

Early each spring semester, the Moot Court Board invites second-year students to be members of Moot Court Board based upon their work in Appellate Advocacy, a required upper-level course. To be eligible for Moot Court Board, students must have completed Appellate Advocacy during the previous fall semester or in the summer session immediately preceding fall semester. In evaluating Appellate Advocacy student work, the Moot Court Board bases its decisions on appellate brief writing scores and oral advocacy scores earned in the Appellate Advocacy course. A maximum of eighteen members are chosen at that time.

The remaining second-year justices are selected through the Baker Cup Competition, which is held annually each spring semester. The Baker Cup competition is open to all second-year students who have passed Appellate Advocacy in the fall or are currently taking Appellate Advocacy in the spring. Newly selected members must participate in the competition. The Baker Cup competition ranks all competitors, uses that ranking to determine the National Moot Court Team (top six members), awards other prizes such as Best Brief and Best Oralist, and sets priorities for other outside competitions.

Moot Court Board Justices are required to maintain a 2.0 GPA and participate in at least one interscholastic appellate advocacy competition in their third year. Part-time justices must find a competition that does not require full-time status. Justices are awarded up to three hours of credit.

No member of the Moot Court Board may be a member of the West Virginia Law Review. Students who successfully complete all the requirements for Moot Court Board membership receive up to three hours of credit.

4. Jessup International Moot Court

Jessup International Moot Court is a co-curricular class in which up to five students prepare for and compete in the Jessup International Moot Court Competition. Participation in Jessup is open to second- and third-year students. Preparing for and participating in the competition begins early in the fall semester and continues until mid-spring. Students participating in Jessup sign up for a one-credit, graded class in the fall and spring semester of that year. (Members who participate in Jessup for two years thus can obtain a total of four hours credit.) Jessup students must have successfully completed or be currently enrolled in International Law.

A.2 RECOGNIZED COLLEGE OF LAW STUDENT ORGANIZATIONS

The following is a list of organizations that are currently active at the College of Law, subject to official recognition each school year as described below. Full descriptions of the organizations and their purpose can be found on the College of Law website (http://www.law.wvu.edu/student-life/student-orgs).

<u>**2014-2015**</u>

- ACLU - American Civil Liberties Union
- Agricultural Law Association
- ADR - Alternative Dispute Resolution Society
- American Bar Association
- Animal Law Society (WVU College Chapter of SALDF)
- BLSA - Black Law Students Association
- Business Law Society
- Christian Legal Society
- Class of 2015
- Class of 2016
- Class of 2017
- Community Service Coalition (Formerly Alliance for Social Justice)
- Defense Trial Council of West Virginia
- Democratic Law Caucus
- Energy Law Association
- Environmental Law Society
- Federalist Society
- International Law Students Association (ILSA)
- Labor Law Society
- Marilyn E. Lugar Trial Association
- Moot Court Board
- OutLaw
- Phi Alpha Delta, Willey Chapter
- Public Interest Advocates (PIA)
- Republican Law Caucus
- Sports and Entertainment Law Society
- Student Bar Association
- Tax Law Society
- Veteran's Law Caucus
- WV Intellectual Property
- WV Law Review

• Women's Leadership Council (formerly Women's Law Caucus)

A.3 DIRECTORY OF ADMINISTRATIVE PERSONNEL FOR STUDENT ORGANIZATIONS

Janet Long Armistead
Assistant Dean for Student Affairs
Phone: 304-293-7320
Email: janet.armistead@mail.wvu.edu
Dean Armistead is the administrative liaison for student organizations. See Dean Armistead for official recognition and about elections, student organization files, budget, and other issues. She is the cosigner on checking accounts.

Associate Dean of Academic Affairs
John E. Taylor
Phone: 304-293-8180
Email: john.taylor@mail.wvu.edu

Joy Fryson
Student Affairs/Career Services Assistant
Phone: 304-293-6819
Email: joy.fryson@mail.wvu.edu
Ms. Fryson is the liaison between law school organizations and the WVU Student Organizations Office. See Joy for forms pertaining to official recognition.

Lisa Berry
Payroll Representative
Phone: 304-293-7250
Email: lisa.berry@mail.wvu.edu
Ms. Berry is responsible for ordering office supplies. Copier maintenance issues may also be discussed with Lisa.

Renee Sulipeck
Administrative Assistant
Phone: 304-3293-6502
Email: renee.sulipeck@mail.wvu.edu
Ms. Sulipeck is responsible for distributing keys. Building maintenance issues may also be discussed with her.

Stenja McVicker
Business Planning Officer
Phone: 304-293-7357
Email: stenja.mcvicker@mail.wvu.edu
Ms. McVicker serves as the Dean's Budget Officer and monitors all Student Organization expenditures.

James Murphy
Accounting Assistant II
Phone: 304-293-7691
Email: jmurph18@mail.wvu.edu (joan.gibson@mail.wvu.edu)
Mr. Murphy serves as the Procurement Card Coordinator and Travel Coordinator for the College of Law and the Law Library.

Receptionist
Phone: 304-293-5301
Organizations may see the receptionist for assistance in reserving rooms for meetings and activities. The master building key sign-out log is also maintained at the front desk.

A.4 RULES AND POLICIES FOR STUDENT ORGANIZATIONS

Responsibilities

1. Approval. All student organizations must petition the University for official recognition. All student organizations must also get annual approval from the University to be a recognized College of Law student organization. To obtain approval, the organization must submit an "Officer Update Form" to Joy Fryson in the College of Law Career Services office. A copy of the Petition and Officer Update Form, as well as additional information, is also available at the University Student Organization Services (SOS) website (http://sos.wvu.edu/sos_forms).

2. Recordkeeping. The College of Law's Assistant Dean for Student Affairs maintains a file for each student organization. This file must contain copies of all materials pertaining to the student organization, a list of officers, the constitution, and recognition form for filing. Student organizations also may store their checkbooks and financial records in this file over the summer.

3. Checking Accounts. For those organizations that have a checking account, monthly statements from the financial institution must be kept and passed on to the succeeding officers. The Assistant Dean for Student Affairs or the student organization's faculty advisor must be a signatory on all checks. A FEIN number for the account may be applied for online (http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Apply-for-an-Employer-Identification-Number-%28EIN%29-Online).

4. Elections. Elections for new class officers must be held before February 28 each year. Election results must be delivered to the Assistant Dean for Student Affairs within two days of the election. The third-year class president runs the ballot box for the selection of Professor and Staff Member of the year. This election must be held three weeks before Honors Weekend.

5. Class Presidents. During a law school class's second academic year, the class President is responsible for ordering the class composite picture for display in the Law Center.

6. Websites. All student organizations are required to keep their websites current and to name a Webmaster each academic year. The Webmaster is responsible for maintaining on that student organization's website a current list of officers, the constitution, a descriptive paragraph of the purpose of the organization, news items, and any other updates or corrections on the Student Organizations portion of the College of Law website. For assistance, please contact Keith Walton, Director of Law School Technology, at 304-293-8556 or by email at keith.walton@mail.wvu.edu. For other web assistance, contact James Jolly at 304-293-7220 or by e-mail at james.jolly@mail.wvu.edu.

7. Other. The new SBA president is responsible for recruiting students for appointment to faculty committees and working with the Assistant Dean for Student Affairs to accomplish this. The SBA also is responsible for providing the Assistant Dean for Student Affairs with information for the College of Law's summer newsletter.

Rooms/Equipment

1. Room Reservations. The master College of Law room schedule is maintained online at http://wvulaw.wvu.edu/calendar. All classes, meetings, and events are listed on this schedule. Organizations may access this schedule to reserve a room for meetings and events. Please review the schedule for possible conflicts with other activities in order to make the most of your scheduled meetings. Faculty and administration have priority in reserving rooms; all other reservations are on a first-come, first-served basis.

If you need assistance in scheduling a room, please see the receptionist in the reception area. If your reservation request is approved, you will receive a confirmation email. DO NOT ASSUME THAT YOU HAVE A RESERVATION UNTIL YOU RECEIVE THIS CONFIRMATION. Additionally, if it is a major event with outside attendance, you may also request that no parking tickets be issued during the event. Do not schedule an event opposite a major event in the courtroom.

2. Audio-Visual. Audio-visual equipment requests should be made at least one week in advance. Contact Lewis Mackley by phone at 304-293-7543. You may also email him at lewis.mackley@mail.wvu.edu. Any audio-visual problems should be reported to Lewis. Available equipment includes TVs, VCRs, camcorders, computers, LCD projectors for presentations, etc. Questions concerning information technology may be addressed to Keith Walton.

3. Furniture/Equipment Needs. A few tables and chairs are normally set up in the main lobby for student use. If you need more tables and chairs, please request them from Renee Sulipeck at least one week in advance. The Law School has a limited number of tables and chairs and must request additional equipment from the University Physical Plant.

Law Center Building Policies

1. Building Hours. The College of Law building hours are the same as the Law Library hours, which are available online (http://law.wvu.edu/library). Students should not be in the building after the library has closed unless they have written permission from the Dean's Office. Custodial staff and WVU Public Safety Officers have authority to ask you to leave if you are in the building after hours. If you have planned a weekend activity and need to be in the building prior to the library opening, please see Renee Sulipeck one week in advance, and she will make arrangements to have the building unlocked.

2. Bulletin Boards / Posting Notices. Please post items on designated bulletin boards. Each board will have a label which indicates the appropriate posting for that board. DO NOT post materials on the doors, walls, or windows of the Law School. There are University regulations prohibiting this. NOTICES POSTED ON GLASS AND DOORS WILL BE REMOVED.

General Supplies and Operating Expenses

Stenja McVicker is the designated budget officer for the College of Law under West Virginia University rules and regulations. Basic office supplies are available from Lisa Berry. If your organization has need to make long distance calls or use the mail services, see Stenja McVicker. The items mentioned above are provided to the student organizations for reasonable usage. However, if you are planning an activity that requires the use of supplies, phone, or postage services beyond a reasonable amount, you should include those costs in the expenditure section of your event proposal.

C. CONSTITUTION OF THE STUDENT BAR ASSOCIATION OF WEST VIRGINIA UNIVERSITY COLLEGE OF LAW

PREAMBLE. In order to represent the law school student body individually and organizationally; to further organizational communication and cooperation; and to maximize student involvement in academic and administrative processes; we, the students of West Virginia University College of Law, do hereby ordain and ratify this Constitution.

ARTICLE I: NAME OF ORGANIZATION

This organization shall be known as the Student Bar Association (hereinafter, "the S.B.A.") of the West Virginia University College of Law (hereinafter, "the Law School" or "the College of Law").

ARTICLE II: PURPOSE, DUTIES, STRUCTURE, AND MEMBERSHIP

Section One: Organization and Purpose. The S.B.A. is the student government of the Law School. The S.B.A. Executive Board (hereinafter, "the Executive Board") is comprised of the elected officers, representatives, and appointed persons. Its purpose is to:

1. Promote a community among the Members of the Law School (students, faculty, staff, and the administration);
2. Formally advocate for and represent the student body of the Law School to the faculty, staff, alumni, and administration of the Law School and West Virginia University, as well as the public;
3. Promulgate rules and exercises rulemaking authority over groups, organizations, offices, property, and effects under its jurisdiction; and
4. Sponsor and host events for the Law School community.

Section Two: Duties and Responsibilities. The S.B.A. has the authority and responsibility to:

1. Oversee every student organization within the Law School, including each organization's budget;
    - Specific rules and regulations governing definition, formation, conduct, and expectations of student organizations are subject to the WVU College of Law Student Handbook.
2. Allocate S.B.A. funds;
3. Execute and regulate all Law School student government elections, including (but not limited to), class officer elections and Ethics Council elections;
4. Execute and oversee the biannual Visiting Committee student round table;
5. Host the Annual Barrister's Ball; and
6. Assume all other duties not detailed by this Constitution as may be delegated to the S.B.A. by the Students, Faculty or Administration of the Law School.

Section Three: Membership. All students enrolled in the Law School are Members of the S.B.A. and shall be represented by the S.B.A. Executive Board. All students enrolled in the Law School are permitted to vote in S.B.A. elections. There is to be no Membership fee.

Section Four: Committees

1. **Standing Committees**. The S.B.A. shall maintain three standing committees; (1) The Social Committee; (2) The Fundraising Committee; and (3) The Community Service Committee. These Committees are to be chaired by elected Members of the Executive Board. The Standing Committees may only be dissolved through Constitutional Amendment.
2. **Working Committees**. The President has the authority to create working committees, with the advice and consent of the majority of the Executive Board. Once the Executive Board approves a working committee, the President may select a chairperson and Members of the working committee from the student body. Chairpersons and members of working committees serve at the pleasure of the President. A working committee may be dissolved at any time by a simple majority vote of the Executive Board.

ARTICLE III: THE EXECUTIVE BOARD

Section One: Membership

1. The Executive Board shall consist of eleven board Members:
    - President
    - Vice-President
    - Secretary
    - Treasurer
    - Social Committee Chairperson
    - Fundraising Committee Chairperson
    - Community Service Chairperson

- 3L Class Senator
- 2L Class Senator
- 1L Class Senator
- Bar Association Liaison

2. The S.B.A. Executive Officers (herein after "Executive Officers") are:
   - President
   - Vice-President
   - Secretary
   - Treasurer

Section Two: President. The President is the director of the S.B.A.. The President shall convene and preside over all meetings of the S.B.A. and shall supervise and direct all S.B.A. activities. In addition, the President shall represent the concerns of the student body and S.B.A. to the Law School administration and deans.

1. **Duties and Responsibilities.** The President shall:
   - Call and preside at all scheduled and emergency meetings of the S.B.A. and Executive Board;
   - Attend all faculty meetings and representation of the S.B.A. thereto;
   - Liaise to the Student Administration of West Virginia University;
   - Create a budget to properly allocate all available funds for the academic year;
   - Appoint student Members to law school student-faculty committees, with the advice of and consent by the majority of the Executive Board;
   - Appoint officers to any vacancy on the Executive Board, with the advice of and consent by the majority of the Executive Board;
   - Appoint S.B.A. committees as the need arises, with the advice of and consent by the majority of the Executive Board; and
   - To call matters before the Executive Board to vote;
   - To be a registered signer on the S.B.A. bank account and, when called upon by the Executive Board to do so, provide account details, statements, etc;
   - When called upon to do so by the Treasurer, make deposits into the S.B.A. bank account within two business days of receiving funds; and
   - Carry out all other ceremonial and administrative functions ordinarily assumed by the President
2. **Election.** The President shall be elected by a simple majority of all ballots cast by the student body. Any student currently enrolled at the Law School shall be eligible to vote for the President.
3. **Term of Office.** The President shall be elected to a one-year term of office. The President's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the President's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.
4. **Eligibility**. To be eligible to hold office, the President must be a student at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Three: Vice-President. The Vice-President is the deputy director of the S.B.A.. The Vice President shall support the President, convening and presiding over the S.B.A. and meetings when the President is not able or present.

1. **Duties and Responsibilities**. The Vice-President shall:
   - Ascend to the Presidency in the event of the President's death, removal, or withdrawal during the President's term of office;
   - Preside at S.B.A. meetings in the event of absence of the President; and
   - Represent the President at any ceremonial or administrative functions at the President's request.
2. **Election and Appointment**. The Vice-President shall be elected by a simple majority of all ballots cast by the student body. Any student currently enrolled at the Law School shall be eligible to vote for the Vice-President. In the case of a vacancy, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position.
3. **Term of Office**. The Vice-President shall be elected to a one-year term of office. The Vice-President's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the Vice-President's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.
4. **Eligibility**. To be eligible to hold office, the Vice-President must be a student at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Four: Secretary. The Secretary is the chief administrative officer of the S.B.A.

1. **Duties and Responsibilities**. The Secretary shall:
   - Attend, record, and disseminate the minutes of all S.B.A. meetings;
   - Maintain copies of minutes of all S.B.A. meetings until the conclusion of his or her term, at which point copies of the minutes shall be turned over to the incoming secretary and stored in the President's office;
   - Assist the President in formulation of meeting agendas and advance notice to the Executive Board thereof;

- Provide personal notice to all Executive Board Members of the scheduling of emergency Executive Board meetings;
- Keep record of all S.B.A. resolutions and bylaws;
- Conduct official correspondence of the S.B.A.; and
- Maintain a student event calendar and S.B.A. website.

2. **Election and Appointment.** The Secretary shall be elected by a simple majority of all ballots cast by the student body. Any student currently enrolled at the Law School shall be eligible to vote for the Secretary. In the case of a vacancy, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position.

3. **Term of Office.** The Secretary shall be elected to a one-year term of office. The Secretary's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the Secretary's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.

4. **Eligibility.** To be eligible to hold office, the Secretary must be a student at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Five: Treasurer. The Treasurer is the chief financial officer of the S.B.A.

1. **Duties and Responsibilities**. The Treasurer shall:
   - Maintain the S.B.A. Treasury;
   - Manage the S.B.A. bank account;
   - Record all receipts and disbursements;
   - Provide the Executive Board with a bank account summary (including detailed account statements) no less than once a month, or upon request by the President or Vice-President;
   - Deposit funds into S.B.A. bank account within two business days of receiving funds;
   - Maintain record of and provide oversight of the S.B.A.'s petty cash account; and
   - Ensure that no more than $100 is kept in petty cash at any given time (unless otherwise approved by Executive Board resolution)

2. **Election and Appointment.** The Treasurer shall be elected by a simple majority of all ballots cast by the student body. Any student currently enrolled at the Law School shall be eligible to vote for the Treasurer. In the case of a vacancy, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position.

3. **Term of Office.** The Treasurer shall be elected to a one-year term of office. The Treasurer's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the Treasurer's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.

4. **Eligibility.** To be eligible to hold office, the Treasurer must be a student at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Six: Social Committee Chairperson. The Social Committee Chairperson is the Chair of the S.B.A.'s Social Committee.

1. **Duties and Responsibilities**. The Social Committee Chairperson shall:
   - Appoint Members to the S.B.A. Social Committee, with the advice and consent of the President;
   - Manage and supervise the Social Committee in planning and organizing various social events to be hosted by the S.B.A.;
   - Manage and supervise the Social Committee in planning and organizing the annual Barrister's Ball;
   - Collect, distribute and manage all money used in furtherance of or raised through social events until such a time that the money can be turned over to the President or Treasurer; and
   - Give the money raised by social events or the remainder of the money used in planning the event to the President or Treasurer for deposit within two business days of the event.

2. **Election and Appointment.** The Social Committee Chairperson shall be elected by a simple majority of all ballots cast by the student body. Any student currently enrolled at the Law School shall be eligible to vote for the Social Committee Chairperson. In the case of a vacancy, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position.

3. **Term of Office.** The Social Committee Chairperson shall be elected to a one-year term of office. The Social Committee Chairperson's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the Social Committee Chairperson's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.

4. **Eligibility.** To be eligible to hold office, the Social Committee Chairperson must be a student at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Seven: Fundraising Committee Chairperson. The Fundraising Committee Chairperson is the Chair of the S.B.A.'s Fundraising Committee.

1. **Duties and Responsibilities**. The Fundraising Committee Chairperson shall:
   - Appoint Members to the S.B.A. Fundraising Committee, with the advice and consent of the President;
   - Manage and supervise the Fundraising Committee in planning and organizing fundraisers for the S.B.A.;

- Collect, distribute and manage all money used in furtherance of or raised through fundraising events until such a time that the money can be turned over to the President or Treasurer; and
- Give the money raised by fundraisers or the remainder of the money used in planning the fundraiser to the President or Treasurer for deposit within two business days of the fundraiser.

2. **Election and Appointment.** The Fundraising Committee Chairperson shall be elected by a simple majority of all ballots cast by the student body. Any student currently enrolled at the Law School shall be eligible to vote for the Fundraising Committee Chairperson. In the case of a vacancy, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position.

3. **Term of Office.** The Fundraising Committee Chairperson shall be elected to a one-year term of office. The Fundraising Committee Chairperson's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the Fundraising Committee Chairperson's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.

4. **Eligibility.** To be eligible to hold office, the Fundraising Committee Chairperson must be a student at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Eight: Community Service Committee Chairperson. The Community Service Committee Chairperson is the Chair of the S.B.A.'s Community Service Committee.

1. **Duties and Responsibilities**. The Community Service Committee Chairperson shall:
   - Appoint Members to the S.B.A. Community Service Committee, with the advice and consent of the President;
   - Manage and supervise the Community Service Committee in planning and organizing volunteer opportunities for the S.B.A. and student body;
   - Collect, distribute, and manage all money used in furtherance of or raised through community service events until such a time that the money can be turned over to the President or Treasurer;
   - Give the money raised by community service events or the remainder of the money used in planning the event to the President or Treasurer for deposit within two business days of the event;
   - Ensure that any money raised as a charitable contribution is given to the charity for which it is raised, in the form of a check or money order, by the President or Treasurer, within five business days of the fundraiser;
   - Report failures to comply with Article III, Section Eight, Subsection A(v) to the President and Assistant Dean of Student Affairs of the College of Law (hereinafter "the Assistant Dean of Student Affairs") within two business days of noticing the compliance failure;
   - Keep detailed records of all spending and earnings raised for charitable contributions including (but not limited to) ledger, carbon copies of checks and receipts; and
   - Present the aforementioned records to the Executive Board upon request of the President or Vice-President at the meeting immediately following the request.

2. **Election and Appointment.** The Community Service Committee Chairperson shall be elected by a simple majority of all ballots cast by the student body. Any student currently enrolled at the Law School shall be eligible to vote for the Community Service Committee Chairperson. In the case of a vacancy, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position.

3. **Term of Office.** The Community Service Committee Chairperson shall be elected to a one-year term of office. The Community Service Committee Chairperson's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the Community Service Committee Chairperson's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.

4. **Eligibility.** To be eligible to hold office, the Community Service Committee Chairperson must be a student at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Nine: Class Senators. Class Senators are voting Members of the Executive Board who are tasked with representing their Law School class in the S.B.A..

1. **Duties and Responsibilities**. Class Senators shall:
   - Attend all S.B.A. meetings on behalf of their class;
   - Represent the interests of each individual class at S.B.A. meetings;
   - Vote on behalf of their class regarding S.B.A. matters;
   - Liaise to individual classes on behalf of the S.B.A.;
   - Liaise between the S.B.A. and their respective class officers; and
   - Serve as Vice-Chairperson of an S.B.A. Standing Committee, in this role the Senator will assist and serve at the pleasure of the Chairperson. The President, with the advice and consent of the Chairpersons, shall make appointment of Senators to committees.

2. **Election and Appointment.** Class Senators shall be elected by a simple majority of all ballots cast by the candidate's respective Law School class. Any student currently enrolled at the Law School shall be eligible to vote for their class's Senator but may not vote for the Senator of another class. In the case of a vacancy, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position. The President must seek out the advice of the class's president in appointing this position and allow the class president to vote alongside the Executive Board regarding the appointment. The class president's vote shall carry no greater or lesser weight than any other Member of the Executive Board.

3. **Term of Office.** The Class Senators shall be elected to a one-year term of office. A Senator's term shall begin at the end of the Law School's Spring Commencement Ceremony that follows the Senator's election and shall end at the conclusion of the following academic year's Law School Spring Commencement Ceremony.

4. **Eligibility.** To be eligible to hold office, the Senators must be students at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Ten: Bar Association Liaison . The Bar Association Liaison serves as a pipeline between the Law School and federal, state, and local bar associations.

1. **Duties and Responsibilities**. The Bar Association Liaison shall:
   • Serve as liaison between the S.B.A. and the A.B.A. as well as state, and local bar associations;
   • Promote and help to organize events held by bar associations at the Law School;
   • Serve as a resource for students seeking information about future recruitment into the bar;
   • Attend all S.B.A. meetings and vote on S.B.A. matters; and
   • Carry out any functions or duties assigned by the President.

2. **Appointment.** At the beginning of his or her term, the President, with the advice and consent of the majority of the Executive Board, may appoint a student to this position.

3. **Term of Office.** The President shall appoint the Bar Association Liaison to a one-year term of office. The Bar Association Liaison's term shall begin immediately upon confirmation by the Executive Board and shall end at the conclusion of the academic year's Law School Spring Commencement Ceremony.

4. **Eligibility.** To be eligible to hold office, the Senators must be students at the Law School, enrolled fulltime and in good academic standing, as defined by WVU College of Law Student Handbook.

Section Eleven: Removal of S.B.A. Officers. This section shall apply to S.B.A. Executive Board Members. Removal from office consists of two steps; impeachment and removal from office.

1. **Impeachment.** An Executive Board Member may be impeached through one of two methods:
   • **Voting Method:**< >With cause, an Executive Officer may call for a special meeting in order to request impeachment against a Member of the Executive Board.All Executive Board Members, including the subject of impeachment, must be given 72 hours notice prior to the meeting.Quorum for the impeachment meeting is 8 of 11 Executive Board Members.The President shall preside over the meeting. However, neither the accuser nor the accused shall preside. If the President is subject to impeachment or the accuser, the Vice-President shall preside. If the Vice-President is the accuser against the President or subject to impeachment and being accused by the President, the Secretary shall preside.At the meeting, the Executive Officer calling for impeachment may make his or her case to the Executive Board; the subject of the impeachment hearing may then present a rebuttal case. The presider in the interest of justice may determine methods of presenting evidence.After the cases are presented the Executive Board may sequester the accused and the accuser in order to deliberate.After deliberations, the Executive Board may vote on impeachment; the accuser and the accused do not vote.Executive Board Members must be present to vote.An Absolute majority (75 %) of the voting Executive Board is required to impeach an Executive Board Member.This vote is subject to veto by the Assistant Dean of Student Affairs: this veto may be overridden by a unanimous vote of the Executive Board (excluding the vote of the person or persons subject to impeachment).Cause for which an Executive Officer may call for impeachment is limited to:Violation of this Constitution;Violation of the terms of the WVU College of Law Student Handbook or the Student Code of Professional Responsibility;Stealing or misallocating S.B.A. funds;Substantial nonperformance of duties;Failure to attend at least 75 % of S.B.A. meetings without cause (i.e. death in family, exam following day, illness, etc);Failure to meet eligibility requirements; and/orCommitting an offense that would be a violation of the West Virginia University Campus Student CodeSuch a violation need not be proven in accordance with the procedures set forth by the West Virginia University Campus Student Code, but rather in accordance with the procedures set forth by this Constitution.**Petitioning Method:**
     i With or without cause, an S.B.A. Executive Board Member may be impeached if the S.B.A. President or Vice-President is presented with a petition for impeachment including the signature of two-thirds of all Law School Students

2. **Removal from Office.** Once impeached, an Executive Board Member is subject to a public hearing to determine removal from office.

3. The hearing is to be presided over by the Chairperson of the College of Law Ethics Council.

4. Quorum for the hearing is the entirety of the Executive Board.

5. The Executive Officer who initiated impeachment or the proponent of the petition for impeachment shall be permitted to make a case to the Executive Board in support of removal.

6. The accused shall be permitted to make a rebuttal case.

7. The presider shall admit evidence and testimony as is required in the interest of justice.

8. During the hearing, the proponent of removal must show cause for impeachment beyond a reasonable doubt.

9. Once cases are made, the Executive Board (excluding the accused and accuser) is to vote as to whether the proponent has proven cause beyond a reasonable doubt.

10. Cause for removal is limited to:< >Violation of this Constitution;Violation of the terms of the WVU College of Law Student Handbook or the Student Code of Professional Responsibility;Stealing or misallocating S.B.A. funds;Substantial nonperformance of duties;Failure to attend at least 75 %

of S.B.A. meetings in one semester without cause;Three consecutive absences from regularly scheduled meetings without cause;Failure to meet eligibility requirements as defined by this Constitution; and/orCommitting an offense that would be a violation of the West Virginia University Campus Student CodeSuch a violation need not be proven in accordance with the procedures set forth by the West Virginia University Campus Student Code, but rather in accordance with the procedures set forth by this Constitution.

11. A unanimous vote is needed to remove a Board Member from office.

12. If a unanimous verdict for removal is reached, the removal is immediate and not subject to appeal and the Board Member shall be replaced subject to the provisions of this Constitution.

ARTICLE IV: MEETINGS

Section One: Regularly Scheduled Meetings. A regularly scheduled meeting of the Executive Board may be called to discuss any matters before the S.B.A.

1. **Quantity.** The Executive Board shall meet not less than once monthly for a minimum of eight meetings during the academic year. Regularly scheduled meetings of the Executive Board may occur more commonly as needed.

2. **Scheduling.** The President may call a regularly scheduled meeting by providing notice of the time and location of the meeting to members of the Executive Board at least three days in advance.

3. **Precedence.** The President shall preside over all regularly scheduled meetings. The Vice-President shall preside in the President's absence. Meetings shall not proceed without the presence of either the President or Vice-President.

4. **Structure.** The presider of the meeting may determine the structure of each meeting.

5. **Quorum.** Fifty percent plus one Member of the Executive Board shall constitute a quorum.

6. **Voting,** Matters before the Executive Board at regularly scheduled meetings may be decided through a simple majority vote pursuant to Article VI and other Articles of this Constitution.

7. **Attendance.** All Members of the Executive Board shall attend all regularly scheduled meetings unless circumstances beyond his or her control prevent attendance. Failure to attend 75 % of the regularly scheduled meetings in a single semester or three consecutive regularly scheduled meetings, without cause, shall be subject to removal from office.

Section Two: Emergency Meetings. Emergency meetings of the Executive Board may be called to discuss matters that require the immediate attention of the S.B.A..

1. **Scheduling.** The President or Vice-President may call an emergency meeting by providing 24 hours notice of time, location and purpose of the meeting to members of the Executive Board.

2. **Precedence.** The President shall preside over emergency meetings. The Vice-President shall preside in the President's absence. Emergency meetings shall not proceed without the presence of either the President or Vice-President.

3. **Structure.** The presider of an emergency meeting may determine the structure of an emergency meeting. No more than two matters may be considered at an emergency meeting.

4. **Quorum.** Fifty percent plus one Member of the Executive Board shall constitute a quorum.

5. **Voting.** Matters before the Executive Board at any Emergency Meeting may be decided through a simple majority vote pursuant to Article VI and other Articles of this Constitution.

6. **Attendance.** There will be no sanctions for failure to attend an emergency meeting.

ARTICLE V: RESOLUTIONS AND BYLAWS

Section One: Definitions

1. **Resolutions.** An S.B.A. Resolution is a formal decision or determination as to an official and binding course of action of the S.B.A. or a formal statement that shall serve as S.B.A. policy.

2. **Bylaws.** S.B.A. bylaws are rules created by members of the S.B.A. that bind the Student Bar Association and its members.

Section Two: Creation and Enactment. The Executive Board may create S.B.A. resolutions and bylaws that are in accordance with this Constitution through a simple majority vote. Bylaws may be proposed by any Executive Officer at a regularly scheduled meeting and shall be enacted following a majority vote of the Executive Board. Resolutions may be proposed by any executive board member at any meeting and shall be enacted following a majority vote of the Executive Board.

Section Three: Modification, Repeal, and Expiration. Resolutions and bylaws may be modified or repealed by a simple majority vote of the Executive Board, following proposed modification or repeal by any Executive Officer at any meeting. Resolutions and bylaws expire at the end of each academic year but may be renewed by a majority vote of the incoming Executive Board.

Section Four: Recording Resolutions and Bylaws. The S.B.A. Secretary is responsible for keeping records of all resolutions and bylaws and presenting the records to the S.B.A. President-Elect upon election.

Section Five: Quorum. Quorum for enactment, modification or repeal of a resolution or bylaw is 50 % plus one member of the Executive Board.

Section Six: Voting. Voting on enactment, modification, repeal, and renewal of resolutions and bylaws, unless otherwise provided by this section, shall be conducted pursuant to Article VI of this Constitution.

ARTICLE VI: VOTING. Matters before the S.B.A. are to be resolved through a democratic vote of the Executive Board.

Section One: Voting rights. All Executive Board Members shall be entitled to one vote on any matter before the S.B.A. with the exception of the President.

Section Two: Quorum. Unless otherwise provided by this Constitution or an S.B.A. bylaw, quorum for voting on all matters shall be 50 % plus one member of the Executive Board.

Section Three: Initiating Voting. A vote on a matter before the S.B.A. may be added to the agenda of any regular scheduled meeting or emergency meeting by the President or Vice-President.

Section Four: Debate and Discussion. The presider of the meeting may allocate time for debate and discussion of the matter prior to a vote.

Section Five: Voting Process. When a vote is initiated the presider of the meeting shall call roll in the following order:

1. Vice-President
2. Secretary
3. Treasurer
4. Social Committee Chairperson
5. Fundraising Committee Chairperson
6. Community Service Committee Chairperson
7. 3L Class Senator
8. 2L Class Senator
9. 1L Class Senator
10. Bar Association Liaison

Upon being called, each Member shall cast a spoken public vote. The secretary shall record each member's vote in the minutes of the proceeding. At the conclusion of voting, the Secretary shall read the results of the vote.

Section Six: Voting Results. A matter before the S.B.A. for vote shall be passed or voted down by a simple majority, unless otherwise provided by this Constitution.

Section Seven: Ties. In the case of a tie, the President shall cast a single tiebreaking vote.

Section Eight: Finality. Upon the reading of the results of a vote or the casting of a tiebreaking vote, the vote shall be final and the result shall go into effect immediately.

ARTICLE VII: ELECTIONS

Section One: Jurisdiction. The provisions of Article VII shall govern all S.B.A. and class officer elections. Class officer constitutions may not displace, supersede or modify this Article.

Section Two: Time of Elections

- **Upperclassmen Elections.** S.B.A. Executive Board Elections and 2L and 3L class officer elections shall be held in the second half of the spring semester of an academic year.
- **1L Elections.** 1L Class Officers and the 1L S.B.A. Senator shall be elected within the first month of the fall semester of an academic year.

Section Three: Eligible Voters. All currently enrolled Law School students may vote in S.B.A. Elections. All currently enrolled Law School students may vote in their individual class's elections for class officers and Senators. No student may vote for class officers or Senators of another class.

Section Four: Eligible Candidates. All candidates are subject to the eligibility requirements of this Constitution. In addition, class officer candidates must be members of their respective class. All candidates must be a currently enrolled, fulltime student at the College of Law. All candidates must have a grade point average of 2.2 or higher at the time of his or her nomination.

Section Five: Elections Commissioner. An Elections Commissioner shall be selected from the student body of the Law School to facilitate all elections for an academic year, under the direction of the President (provided that the President is not a candidate). At the beginning of his or her term, the President shall appoint the Elections Commissioner, with the advice and consent of the Assistant Dean of Student Affairs. In the event that the President is a 2L and subject to re-election, the President shall not appoint an Elections Commissioner: in this case, the Assistant Dean of Student Affairs shall appoint an Elections Commissioner. The Elections Commissioner shall serve a one academic year term and may be appointed to no more than two consecutive terms. The Elections Commissioner may be relieved of his or her duties with cause by a combined resolution of the President and Assistant Dean of Student Affairs. In the event of a vacancy, the President may reappoint, subject to the provisions of this Constitution. An elected

S.B.A. Executive Board Member, class officer, or candidate shall not serve as Elections Commissioner. In the event of a sudden vacancy or inability to find a willing and able Elections Commissioner, the President may serve in this role, on an interim basis, until an appropriate candidate can be found, provided that the President is not on the ballot.

Section Six: Election Process

- **Nominations.** Election proceedings shall begin with the opening of nominations, which shall be announced at least one week in advance through e-mail announcements and posters throughout the Law School. The email shall include dates of the; nomination period, campaigning period, forum, election, and run-off. The nomination period shall last three business days, opening at 8 A.M. and closing at 4:30 P.M. each day. During this time, a nomination book shall be put in the Law School Reception Office. A candidate may be nominated by writing his or her name in the nomination book on the page of the position for which he or she is being nominated. A candidate may only be nominated for one position.

- **Campaigning.** At the end of nominations campaigning may begin. The campaign period shall last for one week following the close of nominations. Each candidate will be permitted to display in the Law School two posters of no greater size than 12×18 inches. Hand billing is to be encouraged through the use of the student mailboxes. Campaigning may also be conducted through face-to-face petitioning, social media, text messages, and e-mail. Neither candidates nor their surrogates may exchange money, alcohol, or sexual favors for votes. Neither candidates nor their surrogates may coerce votes or unduly pressure voters during the campaigning period or polling hours. Further campaign rules may be created through S.B.A. resolutions or bylaws. Violation of campaign rules is grounds for disqualification.

- **Candidate Forum.** During the campaign period, at a time and place determined by the Elections Commissioner and approved by the President, all candidates must attend a candidate forum and give a speech in support of his or her candidacy. Speeches shall not exceed three minutes. Failure to give a speech during the specified time results in automatic disqualification.

- **General Elections.** The General election will be held within one week following the close of nominations. Polling hours will be held in the Law School lobby. Suggested polling hours are 9 A.M. to 2 P.M.. Polling hours may not be fewer than four hours and may not exceed eight hours. Notice of polling hours must be given to the student body. Each currently enrolled College of Law student may fill out no more than one complete ballot. While the polls are open campaigning may continue, however candidates may not solicit votes within 30 feet of the polling table. The Elections Commissioner may impose further prohibitions on campaigning during polling hours as is needed to preserve the integrity of the election. Upon receiving notice of the prohibition, failure to abide by the Elections Commissioner's ruling shall be grounds for disqualification. Rulings of the Elections Commissioner may be appealed to the Assistant Dean of Student Affairs, however deference should be given to the Elections Commissioner's ruling, provided it is not arbitrary and capricious.

- **Ballot Tallying.** Within 12 hours of the close of polling hours, votes are to be counted by the Elections Commissioner, the President (provided that he or she is not on the ballot), and a 3L Ethics Council member or an Ethics Council member who is not on the ballot. The Bar Association Liaison and any Executive Board Member who is not on the ballot may also assist in ballot tallying, at the discretion of the Elections Commissioner. Prior to tallying, the ballots must be securely locked in the President's office.

- **Election Results.** The winner of the general election will be the candidate with a simple majority of the votes (50 % plus one vote) on the first ballot. In the event that no candidate obtains a simple majority on the first ballot, a run-off election will be held.

- **Run-Off Elections.** The run-off election will be held in the Law School lobby at a time determined by the Elections Commissioner, with the advice and consent of the President and Assistant Dean of Student Affairs, in the interest of facilitating a fair election that affords all College of Law Students the opportunity to vote. The two candidates who received the most votes in the general election shall be placed on the run-off ballot. In the event of a tie or a percentage difference of 3 % or less, a candidate with the third highest number of votes may be placed on the run-off ballot. The Elections Commissioner, with the advice and consent of the President and Assistant Dean of Student Affairs, may extend the campaign period to correlate with a run-off election. The candidate with the highest number of votes is to be declared the winner of the run-off election, even if a simple majority is not reached. Unless otherwise provided by this subsection, all other rules of this Constitution and Article apply to run-off elections.

- **Certification of Elections.** Upon completion of vote tallying, election results must be certified as accurate and true by the signature of the President, Elections Commissioner, and the Ethics Council member who supervised the tallying process. The results, the certification and the ballots are to be presented to the Assistant Dean of Student Affairs. If the election results are not challenged in a timely manner, as defined by this Constitution, the certification is finalized and the results of the election become official.

- **Results Announcement.** It is the President's duty to announce the results to the Law School student body in a timely manner.

- **Challenges and Recounts.** Election process or results may be challenged within two business days of certification.
  - a. **Challenges.**
    Any student of the College of Law may make challenges in writing to the Elections Commissioner, Assistant Dean of Academic Affairs and/or President. A challenge can be made to the process of the election or levying that a candidate's conduct warrants disqualification (on grounds defined by Article VII, Section Five(K)(ii) of this Constitution). Once a challenge is made, certification may not occur until an investigation is completed.

    Upon receiving a challenge the Elections Commissioner shall consider the merits of the challenge and make a decision within 24 hours of receiving the challenge. If meritorious, so that a reasonable panel of four could possibly find misconduct, the investigation phase shall be initiated. If no merit is found, the Elections Commissioner shall dismiss the challenge. The decision to dismiss may be appealed by the challenger to the President and Assistant Dean of Academic Affairs, however deference should be given to the Elections Commissioner's ruling, provided it is not arbitrary and capricious.

    Within 24 hours of the investigation phase being initiated, the challenge shall be presented to the Chairperson of the Ethics Council and a single member Ethics Council's investigative panel. The Investigative Panel member shall conduct the investigation, during which all relevant

parties shall be notified and interviewed. The Investigative Panel member shall present his or her findings to the President, Assistant Dean of Academic Affairs, Elections Commissioner, and Ethics Council Chairperson within one week of receiving the challenge. At this time, the President, Assistant Dean of Academic Affairs, Ethics Council Chairperson, and Elections Commissioner shall discuss and vote on the merits of the challenge. All facts in question shall be viewed in the light most favorable to the nonmoving party. 3 of 4 votes shall be required to uphold a challenge and overturn the results of an election. The result of this vote shall be final and is not subject to appeal. If an election is overturned, the candidate whose misconduct resulted in the challenge shall be disqualified and a new election shall be held. The disqualified candidate may not be present on the ballot of the second election.

   b. **Recounts.** Any candidate may request that the Elections Commissioner, President, and a member of the Ethics Council conduct a recount. The recount shall be conducted in the presence of the candidate who has requested the recount. The candidate who has won the election shall be invited to observe the recount as well.

- **Disqualification.** A candidate may be disqualified from the ballot prior to the election. Any student of the College of Law may request to the President or Elections Commissioner that a candidate be disqualified. However, the President or Elections Commissioner must initiate a formal disqualification investigation at his or her discretion, based on the merits of the claim. If an objectively reasonable panel of four could possibly find in favor of disqualification, a formal investigation shall be initiated.< >**Disqualification Investigation.** Upon initiating a disqualification investigation, the President or Elections Commissioner must notify the candidate being challenged, the Ethics Council Chairman, the Assistant Dean of Student Affairs and a single member of the Ethics Council Investigative Panel. The Investigative Panel Member shall investigate the claim and present the evidence to a panel consisting of the President, the Ethics Council Chairman, the Assistant Dean of Student Affairs and the Elections Commissioner. This panel shall consider the evidence in the light most favorable to the accused. Following discussion the panel shall vote. 3 of 4 votes are required to disqualify a candidate from the ballot. This vote shall be final and is not subject to appeal.**Grounds for Disqualification.** The following shall be grounds for disqualification from the ballot, as well as grounds for post-election disqualification through the challenge process laid out by Article VII, Section Five(J)(i);Violation of this Constitution;
- Lack of eligibility as defined by this Constitution;
- Violation of campaign rules;
- Violation of the terms of the WVU College of Law Student Handbook or the Student Code of Professional Responsibility; and/or
- Committing an offense that would be a violation of the West Virginia University Campus Student Code
   a. Such a violation need not be proven in accordance with the procedures set forth by the West Virginia University Campus Student Code, but rather in accordance with the procedures set forth by this Constitution.

- **Write-In Votes.** Write-in candidates are prohibited and all write-in votes shall be discarded.

ARTICLE VIII: AMENDMENTS

Section One: Proposal of Amendments. Amendments may be proposed through one of two methods:

1. Petitioning. Any student currently enrolled at the College of Law may present the S.B.A. a petition bearing the proposed amendment and the signature of at least fifty percent of the student body; or
2. Resolution. The Executive Board may pass an amendment resolution. Such a resolution must receive approval of at least two-thirds of the Executive Board.

Section Two: Ratification. This Constitution shall be amended upon the approval of the proposed amendment described in the preceding paragraph and the support of a simple majority (50 % plus one vote) of currently enrolled students who vote in an election to be held at least one week after its approval in Section One. The vote must be open to all currently enrolled students at the College of Law. However, a majority of all students is not required for the Amendment to pass, rather only a majority of those who vote.

ARTICLE IX: AUTONOMY. All student organizations shall enjoy political, physical, and administrative autonomy. The S.B.A. is not empowered to control the member organizations' internal affairs in any way, aside from those specifically defined by this Constitution.

ARTICLE X: STUDENT CODE OF PROFESSIONAL RESPONSIBILITY. The S.B.A., as an organization, its officers, and members agree to abide by the Student Code of Professional Responsibility.

ARTICLE XI: NON-DISCRIMINATION. The S.B.A. shall not discriminate against any person on any basis prohibited by the United States Constitution or the Constitution of the State of West Virginia.

Ratified: September 17, 2014

D. COLLEGE OF LAW SERVICES

4. College of Law Bookstore and Cafe (p. 521)

5. Financial Aid and Scholarships (p. 521)

6. Technology Services (p. 522)

7. Communications (p. 522)

8. Web Information (p. 523)

D.1 ACADEMIC EXCELLENCE PROGRAM

Kirsha Trychta, Director of Academic Excellence
Academic Excellence Center
Phone: 304-293-7774
Email: grace.wigal@mail.wvu.edu

Fall Programs for Incoming Students. The Academic Excellence Program (AEP) seeks to enhance the academic performance of all students in their first year of law school. Because new law students must rapidly adjust to the heightened expectations of a professional school, the Academic Excellence Center provides an array of services designed to empower first-year students to quickly integrate "how to learn" with "what to learn." The Center's ultimate goal is to help students thrive in their first year of law school, not merely survive. To this end, the Center provides (1) weekly workshops on critical skills such as notetaking, outlining, time management, and test taking; (2) helpful handouts with tips for success and other important information about resources available to law students; and (3) individual counseling to address the needs of students who could benefit from personalized assistance.

Additionally, an early orientation and Fall Study Session Program is conducted for incoming students who would benefit from additional support activities. Enrollment in the Fall Study Session Program (FSSP) is limited and participation is by invitation only. Several factors are considered in choosing students to participate, e.g., whether the student has been out of school for a significant time, has a nontraditional background for law, has learning disabilities, speaks English as a second language, or has a GPA or LSAT score below the average of the incoming class. The goal of FSSP is to assist students in achieving maximum performance in legal writing assignments and casebook examinations.

Spring Study Session Program for At-Risk Students. A different kind of AEP program is offered in the spring for students whose first-semester GPA is at 2.3 or below. Because first-time bar passage has been statistically linked to performance in law school, the common goal of the College of Law and AEP is to improve analytical and writing skills of students before the end of the first year of law school. The Spring Study Session Program (SSSP) therefore concentrates on the Property, Civil Procedure, Legislation and Regulation, and Constitutional Law classes that first-year students are taking in second semester (content areas tested by the bar examination).

Students who participate in SSP attend weekly study sessions that provide opportunities for review of important legal concepts covered in the spring courses, as well as guidance about how to create strong study outlines and write exams. Specially trained student teaching assistants, known as Deans Fellows, lead these small study sessions (six - ten students per session). The Deans Fellows work closely with the course professors to lead the study group through review materials and practice tests.

Third – Year Bar Preparation Courses

Practical Legal Writing I: This course is open to all third-year students in the spring semester and provides one hour of class credit. The course addresses the content of the bar exam, how to study for the exam, how to spot issues in essay questions, and how to write essay responses and performance test documents. The goal is to provide a "jumpstart" on the traditional bar review course taken by students when they graduate.

Practical Legal Writing II: This course provides an additional hour of credit for students who would benefit from an additional hour of practice each week. Participation is by invitation only.

D.2 PROFESSIONAL WRITING CENTER

In collaboration with the director of the Academic Excellence Program, the writing specialist in the Professional Writing Center provides a full array of academic support services to students of all abilities, in all stages of their law school careers, and at all stages of the writing process. Assistance is available through both workshops and individual conferences in the writing center.

If students have questions about any aspect of their writing, the writing specialist is available to provide assistance. With the professor's permission, students may consult with the writing specialist about grammar, punctuation, and sentence structure on appellate advocacy papers, on seminar papers, and on LRRW papers. Also, the specialist will work with students on resumes and letters of application. Writing workshops presented throughout the year are open to all law students.

The Professional Writing Center is open from 8 a.m. until noon Monday through Friday. The writing specialist can be reached in person at the center, by phone, and via e-mail.

D.3 MEREDITH CAREER SERVICES CENTER

Meredith Career Services Center's website (http://law.wvu.edu/career-services)

Assistant Dean
L. Amber Brugnoli, M.S., M.A., J.D.
Phone: 304-293-6792
Email: amber.brugnoli@mail.wvu.edu (jennifer.powell@mail.wvu.edu)

Assistant Director
Rosalind Lister, M.S.Ed.
Phone: 304-293-7750
Email: rosalind.lister@mail.wvu.edu

Administrative Assistant
Joy Fryson
Phone: 304-293-6819
Email: joy.fryson@mail.wvu.edu

The Meredith Career Services Center is open year round. Office hours are Monday through Friday from 8:15 a.m. until 4:45 p.m.

Students must register with the Career Services Center to use its services and participate in on-campus interviews. First-year students will register at the Career Services Orientation program held in mid-October. The forms are on the College of Law's website. Students must complete the forms to provide Career Services with current contact information and to give permission to release resume and other employment information to prospective employers.

Students should schedule an appointment with the staff member of their choice, either via email or Symplicity, the Center's online career management system. The Assistant Dean and Assistant Director will work individually with each student to assist with career development, to write or revise a resume or cover letter, to discuss interviewing skills, or to implement job search strategies.

1. **Career Center Workshops**. There are a series of workshops held for students each semester. Frequently offered topics include

   *Resume writing/editing and cover letter writing/editing

   *Interview preparation and interview skills workshops; mock interview program

   *Job search strategies beyond on-campus interviews

   *Using Web-based resources in the job search

   *Working in public interest law

   *Alternative careers for lawyers

   *Working as a judicial clerk

   *How to have a successful summer work experience

   *Employer information talks

Many of these workshops are co-sponsored and given by the hiring partners of local law firms, public interest organizations, and corporations.

A mandatory "Orientation to Career Services" workshop is held in mid-October, and all first-year students are required to attend. First-year students will register to use the Career Services Center at this time, and the Career Services Center will provide handouts on writing a resume, writing effective cover letters, preparing for spring interview season, and organizing a job search. The Assistant Dean for Career Services and the Assistant Director conduct this workshop each year.

2. **On-Campus Interviewing**. The Career Services Center invites law firms, public interest organizations, government agencies, businesses, and corporations to interview WVU law students for summer and full-time positions. On-campus interview season occurs in the fall semester for second- and third-year students, and generally runs from the last of August through October. The spring on-campus interview season generally features employers seeking first-year students and runs from February through April. Many employers come to campus to interview students; others ask to review student credentials through a resume mailing service.

A master schedule of interviews is posted on the WVU Career Services Symplicity website (https://law-wvu-csm.symplicity.com/students). The schedule is updated frequently each semester. Students should register for the Symplicity site.

Students should participate in on-campus interviewing but should also consider alternative methods of finding a job as well. Between 20-25% of students find their permanent jobs through on-campus interviewing each year; most students find work through a self-directed job search. Career Services is here to help with either.

Additionally, dozens of jobs are posted on Symplicity each semester and follow traditional application/hiring procedures.

3. Job Research. The Career Services Center has many Web-based and print resources for student use. Handouts and books are available for students to use in Room 130. Students may use Martindale Hubbell, the National Association for Law Placement Directory of Employers, and many other job-related texts and websites to find a job. See Career Services for updated passwords.

D.4 COLLEGE OF LAW BOOKSTORE AND CAFÉ

Manager
Mary Jo Fugera
Phone: 304-293-2492
Email: bkswvulaw@bncollege.com

The WVU Law Center Bookstore and Café is located off the main lobby of the Law Center. Regular operating hours are 8:00 a.m. to 5:00 p.m., Monday through Thursday and 8:00 a.m.-4:00 p.m. on Friday. Summer hours are 8:00 a.m. to 4:00 p.m.

The Bookstore is also open the Saturday prior to the first day of class and prior to home football games. The WVU Law Center Bookstore offers new and used textbooks, reference books, school supplies, and imprinted clothing and giftware. Software can be ordered online (http://wvulaw.bncollege.com/webapp/wcs/stores/servlet/CategoryDisplay?catalogId=10001&storeId=15066&categoryId=40003&top=Y&langId=-1). Special order service is available at no extra charge. To order textbooks online, visit the Bookstore homepage (http://wvulaw.bncollege.com/webapp/wcs/stores/servlet/BNCBHomePage?storeId=15066&catalogId=10001&langId=-1). Textbook Rentals are also available, offering great savings on selected titles. Contact the Store Manager for details.

D.5 FINANCIAL AID AND SCHOLARSHIPS

Financial Aid Counselor
Eric Meadows
Phone: 304-293-5302
Email: eric.meadows@mail.wvu.edu

The College of Law Financial Aid Office hours are as follows:

- Monday, Wednesday, and Friday: 1:00pm-4:45pm
- Tuesday and Thursday: 8:15am-11:45am

To be eligible for all types of financial aid, a student must complete the Free Application for Federal Student Aid (FAFSA). This form can be completed online (http://www.fafsa.ed.gov) each year. Because West Virginia University is a direct lending institution, no loan applications will be accepted from lenders or banks. After all necessary forms have been completed by the student, the Financial Aid Office will determine a student's eligibility for student loans and federal work study. Financial aid awards are to be viewed, accepted, declined, or reduced online through the WVU STAR System. Each student will receive a letter when his or her financial aid award has been processed. First-time loan borrowers are required to complete a master promissory note and entrance counseling. Both are to be completed online. Alternative loans must be applied for through the organizations offering the loan.

Deadlines for financial aid are as follows:

1. Federal Work Study: March 1

A written request must be submitted to the Financial Aid Office.

2. Scholarships: March 1

FAFSA results must be received by WVU by March 1 for first-round scholarship consideration.

3. Student Loans: No deadline

The necessary documentation must be completed in a timely manner in order for the funds to be available for disbursement in August and January. WVU must receive your FAFSA results by June 30 to insure timely processing. Graduating students must complete a Loan Exit Interview if they borrowed from the William D. Ford Federal Direct Loan program.

Financial Aid Processing is a detail-oriented process. Please keep the following eight steps in mind when applying for and receiving financial aid:

1. Make sure all your applications are complete, correct, and submitted on time.

2. Read completely and respond quickly to all financial aid requests.

3. The following steps must be taken to have your financial aid completely processed:

   a. Submit all required documents so that your file is complete, which generally consists of a current FAFSA. If you are selected by the Department of Education for verification, you also must submit the WVU Verification Form and a signed copy of your most recent Federal Income Tax Return. The WVU financial aid office will send you a verification form if you are selected.

   b. View, accept, decline, or reduce your financial aid award online through the WVU STAR system. There is a separate application for the Grad Plus Loan, which is completed online (https://studentloans.gov).

   c. If you are a first-time borrower, sign your master promissory note and complete entrance counseling. Both can be done online at studentloans.govcounseling.

4. Mail all correspondence for financial aid to: WVU College of Law, Financial Aid Office, P.O. Box 6130, Morgantown, WV 26506-6130

   NOTE: Any correspondence sent to other financial aid offices at West Virginia University will delay the processing.

5. The Financial Aid Office may be contacted at the address, email, and phone numbers listed above, or you may use Eric Meadows's mailbox located in the reception area.

6. Be sure to notify the Registrar's Office of all address changes. This is particularly important during the summer months when financial aid correspondence is being sent (i.e., award letters and any notifications). Students can make address changes through their MIX account and the WVU Star System. Refund checks are sent to the local address on file with the Registrar's Office. Make sure the office has the correct address so your check will get to you in a timely manner. You can also request Direct Deposit for your refund by calling PNC Bank at 800-745-7577.

7. Keep records of your loans. You are responsible for knowing how much you borrowed, and you will need that information if you decide to consolidate your loans once you have graduated.

8. Notify the financial aid office if you are awarded a late scholarship, tuition waiver, or some other benefit, such as VA benefits. This could affect your financial aid package, and you may have to repay some of the money you received.

A list of scholarships offered at the College of Law is available online (http://law.wvu.edu/admissions/financial-aid). Scholarships available from outside sources can be found at www.fastweb.com and other helpful sites.

D.6 TECHNOLOGY SERVICES

Director, Law School Technology
Keith Walton
Phone: 304-293-8556
Email: keith.walton@mail.wvu.edu

Information Technology Consultant
Lewis Mackley
Phone: 304-293-7543
Email: lewis.mackley@mail.wvu.edu

The College of Law's Director of Technology Services manages all computer and networking operations for the law school and law library. Duties include maintaining the law school network, wireless access, office computers, library computers, and printers. The College of Law's Information Technology Consultant manages all audio-visual equipment and classroom technology at the College of Law. The consultant's duties include maintaining the law school distance learning classroom, AV equipment scheduling, event taping, and AV equipment maintenance.

D.7 COMMUNICATIONS

Director of Marketing and Communications
James Jolly
Phone: 304-293-7439
Email: james.jolly@mail.wvu.edu

Web/Media Designer
Tatsu Johnson
Phone: 304-293-7220

Email: tjohns31@mail.wvu.edu

Public Relations Specialist
Kaylyn Christopher
Phone: 304-293-0457
Email: kaylyn.christopher@mail.wvu.edu (james.jolly@mail.wvu.edu)

The Director of Communications for the College of Law is responsible for assisting the administration, faculty and/or other personnel, and student organizations with integrated communication activities via the internet, print, radio, television, and any other key media, in order to enhance the prestige and goodwill of the institution and to ensure that its needs and reputation are optimized.

D.8 WEB INFORMATION

The College of Law website (http://www.law.wvu.edu) offers a wealth of information. Also available are a full description of scholarships; professors' curricula vitae, publications, and other information; student organization details; academic and event calendars; current news; student legal clinic information; continuing legal education offerings; and much more.

E. UNIVERSITY SERVICES

E.1 GENERAL INFORMATION

Information regarding University services such as ID cards (Mountaineer Card), parking, Health Services, and Disability Services, as well as University student life and affairs, can be found at the WVU Division of Student Affairs website (http://studentaffairs.wvu.edu).

E.2 HEALTH SERVICES

Illness. Student Health Service offers medical assessment, treatment, referrals, family planning services, and educational programs for tuition and fee-paying WVU students. Students make a co-payment for each visit. Student Health is located on the ground floor of the Robert C. Byrd Health Sciences Center, next to Ruby Memorial Hospital and near the Law School. Students should enter through the Mary Babb Randolph Cancer Center and follow the blue signs that say "Student Health Service." To make an appointment, call 304-293-2311. For more information, see the Student Health Service website (http://www.well.wvu.edu). This is an extremely helpful website.

Mental Health and Counseling Services. Students who seek personal counseling may call the Carruth Center on the main campus at 304-293-4431 for appointments. Counseling services are also available at Student Health Psychiatry in the basement of the Health Science Center. To make a psychiatric appointment, call 304-293-6972.

Please contact the College of Law's Assistant Dean for Student Affairs at 304-293-7320 if you need assistance in making an appointment.

Insurance. For information on University insurance programs, call 304-293-2315 or visit the web (http://studentinsurance.wvu.edu).

Alcoholism, Drug Prevention, Rape and Domestic Violence. For specialized help in any of these areas, call 304-293-6972.

E.3 STUDENT ACTIVITIES AND ORGANIZATIONS

A complete list of all student activities and organizations sponsored by the University is available at the WVU website (http://apply.wvu.edu/life/studentActivities.aspx). Information regarding student organizations at the College of Law is available online (http://www.law.wvu.edu/student-life/student-orgs).

Library Guide

A. LAW LIBRARY GUIDE

A.1 SCHEDULE

FALL AND SPRING SEMESTER HOURS

Monday – Friday 8:00 a.m. – 10:00 a.m.

Saturday 10:00 a.m. – 8:00 p.m.

Sunday 10:00 a.m. – 8:00 p.m.

*Extended hours for law student study are maintained during exam periods.

*The Law Library will be closed on all home football game Saturdays.

SUMMER HOURS

Monday – Friday 9:00 a.m. – 6:00 p.m.

Saturday Closed

Sunday Closed

HOLIDAY AND INTERSESSION HOURS

Generally, 9:00 a.m. to 6:00 p.m.

*The Law Library is closed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas. It also may be closed additional days throughout the year in accordance with the University holiday schedule.

A.2 LOCATION OF MATERIALS

Top Floor. Reference Collection, United States Core Collection, National Reporter System, West Virginia Core Collection, Periodicals Indices, Bound Journals

Middle Floor. General Books on American Law and Other Subjects: (AKF), Anglo-American Collection, Foreign and International Collection

Library Under Renovation. Collection in Flux for the next two years

A.3 LAW LIBRARY POLICY/REGULATIONS

Food and tobacco products are not allowed in the library. Drinks are permitted in containers with lids.

Cell phones should be used only in the stairwells of the library. Cell phones should be kept on vibrate mode.

A.4 BORROWING LAW LIBRARY MATERIALS

Circulation Policy. Many items in the Law Library collection, including bound journals, do not circulate. Please inquire at the Circulation Desk for circulation information regarding the particular materials you wish to use.

Law students may check out circulating books for three weeks. Books may be renewed three times. Renewals may be made by calling the Law Library Circulation Desk at 304-293-5300, in person at the circulation desk, through MountainLynx, or by email to wvulawbooks@mail.wvu.edu.

It is the responsibility of the borrower to know when library materials are due and to return or renew them on or before the due date. If material is lost or damaged, the amount of the fine will be equal to the replacement price plus a $10.00 processing fee.

Law Library Student ID Number. To borrow library materials, all students must have a current WVU student ID card (Mountaineer Card). The Mountaineer Card allows students to check out materials at all of the libraries on campus.

A.5 SERVICES

Reserve. The Reserve Collection contains commercial study aids, AV material, course reserve materials, and frequently used titles.

WVU College of Law Examinations. Copies of some exams that are administered in the College of Law courses are compiled and placed on reserve, at the discretion of individual professors. The exams, which may be used by students as study aids, are available for photocopying.

MountainLynx. MountainLynx is the WVU Library's online catalog and information network. The holdings of all campus libraries are included in MountainLynx. Library materials are accessible by author, title, keyword, and Library of Congress subject heading. MountainLynx is available anywhere you have internet access.

Computers. The Law Library provides forty networked computers. Each computer is connected to the Internet, networked to a laser printer, and contains the latest versions of commonly used software. Wireless access is also available throughout the Law Library.

Computer-Assisted Legal Research. The BloombergLaw, LexisNexis, and Westlaw legal research databases are available free to all law students, including home access. Documents accessed on LexisNexis may be printed free of charge on the LexisNexis printers, which are located inside the Law Library in Room 201B (to the left of the main entrance) and in the Student Lounge.

Photocopying. One photocopier is located on the main floor of the Law Library, to the left of the front door outside Room 201B. The machine will accept Mountaineer ID cards. Funds can be deposited to your card online.

Carrels. Study carrels may be reserved by College of Law students. Carrels are assigned at the beginning of the fall semester, and the assignment is effective for the academic year.

The order of preference for assignment of carrels is

1. Third-year students

2. Second-year students

3. First-year students

Applications are available at the Circulation Desk during the first week of classes.

Interlibrary Loan. The Law Library staff is able to borrow materials not found in our collection from other libraries. The staff can usually get requested books within two weeks and articles within several days. Inquiries concerning this service can be made at the Circulation Desk. Patrons will be notified when the material arrives.

For Children. If it is necessary to bring children to the Law School, there are a number of books and toys available for quiet play that can be requested at the Circulation Desk.

Printers and Other Machines. There are several printers available in the Law Library, which are connected to the university's paid printing system (Pharos). These printers will accept your WVU ID card. There is also a large format poster printer on the bottom floor of the law school. The Law Library has three digital scanners; two scanners are located on the top floor of the library by the Reference Desk, and one is on the bottom floor.

3. Execute independent thinking and take on leadership roles in a professional setting.
4. Synthesize knowledge acquired in the program through the application of solutions in real-world situations.
5. Demonstrate professional written communications skills within the context of marketing communications.

3. Compare and contrast the benefits and limitations of various qualitative and quantitative research methods relevant to marketing communications.
4. Recognize the roles and implications of law and ethics in marketing communications.
5. Design and organize marketing communications materials in a professional manner consistent with contemporary industry-specific standards.

MASTER OF SCIENCE IN JOURNALISM (MSJ)

Upon successful completion of the MSJ curriculum, students will be able to:

1. Understands economic, ethical, historical, legal, political, social, and technological forces that shape the roles and structures of the media.
2. Has mastered sufficient writing, researching, and editing skills to be a professional in the student's chosen field.
3. Has an ability to articulate journalistic concepts and skills.
4. Understands methodology used in areas such as historical, legal, intercultural, qualitative and quantitative research.
5. Has an ability to conduct original research that contributes to knowledge in the field.
6. Has an ability to communicate, orally and in writing, research methodology and results.
7. Has an ability to place research results in perspective.

Admission

Those interested in learning about and applying to the master of science in journalism program should contact the Director of Graduate Studies via e-mail (steve.urbanski@mail.wvu.edu). Prospective graduate students specifically seeking information about the master of science in integrated marketing communications should contact the IMC enrollment specialist Joey VanDevender (gvandeve@mail.wvu.edu) or imcprogram@mail.wvu.edu. The WVU Admissions online catalog is available at http://admissions.wvu.edu/graduate. Written requests for answers may also go to WVU, Reed College of Media, 112 Martin Hall, P.O. Box 6010, Morgantown, WV 26506-6010.

The College of Media telephone number is (304) 293-3505. The IMC program's office number is (304) 293-6783.

Integrated Marketing Communications

Master of Science in Integrated Marketing Communications

The Integrated Marketing Communications (IMC) graduate program (http://imc.wvu.edu) is offered exclusively online with no on-campus classroom attendance required.

In the WVU IMC program, communications professionals learn to re-align their marketing activities to ensure a constant flow of information to consumers from a variety of media. Students earn a practical, customizable graduate education that is designed to equip them with the skills to emerge as leaders in the field. One hallmark of the WVU IMC program is its "learn-it-today, use-it-tomorrow" focus that is built into the curriculum. Students are able to take the knowledge they gain in the classroom and immediately apply it to the challenges in their professional lives.

The program is taught by a diverse faculty – from marketing directors to academics to entrepreneurs – who are recognized leaders in their fields.

The IMC program is also renowned for its flexibility. Most IMC students continue to work full-time while earning their degree. All IMC courses are asynchronous, allowing students to participate at any time, from anywhere in the world. While no on-campus residency is required to complete the degree, the program hosts the INTEGRATE conference annually in Morgantown, WV to provide students and faculty an opportunity to network and explore the latest innovations in the ever-changing IMC world. Information on the conference can be found on the IMC program's INTEGRATE webpage (http://imc.wvu.edu/integrate).

Graduate Assistantships

Effective Fall 2014, students in the IMC program who secure a graduate assistant position at any academic or non-academic unit on campus will be eligible to receive a waiver of University tuition for IMC courses, as well as any stipend/compensation offered by the unit hosting the position. For complete information on graduate assistant options at WVU, please visit the Graduate Education Assistantships webpage (http://grad.wvu.edu/funding/assistantships).

Program Format

The program's academic year consists of five accelerated terms: Early Fall (August–October), Late Fall (October–December), Early Spring (January–March), Late Spring (March–May) and Summer (May–July).

Due to the rigor of IMC program courses, student should register for no more than two courses in any IMC term. Most students who work full-time indicated that one-two course(s) per term is manageable. Students are encouraged to work with their advisor to select a course schedule that fits their life. Most students complete the master's degree in around two years.

Those who wish to experience the program without making a full commitment are invited to apply to the five-course IMC certificate program (http://imc.wvu.edu/curriculum/imc_certificate).

Admissions

Like all premier academic programs, admission to the IMC online graduate program at West Virginia University is highly competitive and the total number of available seats for each entry term is limited. Admission to the program is based on a holistic, case-by-case analysis of the applicant's WVU Graduate Application for Admission, academic record (undergraduate transcript), GRE or GMAT scores*, years of relevant professional experience (resume), writing ability and intent (personal statement) and references (letters of recommendation).

The GRE/GMAT admission requirement may be waived for interested applicants who meet certain professional or educational conditions. Please submit your information to the IMC Review Dropbox to have your credentials evaluated for the GRE/GMAT waiver and to receive more information about the program.

Students are admitted to the IMC program three times per year, in the Early Fall (August), Early Spring (January), and Summer (August) admission terms. All applications received by the application priority deadline will be considered, and accepted students will be notified by the corresponding priority acceptance notification date. However, the IMC program operates on a rolling admissions basis and qualified applicants may be accepted earlier than the priority acceptance notification date.

Admission Term	Application Priority Deadline	Priority Acceptance Notification
Summer (May)	March 15	April 15
Early Fall (August)	June 15	July 15
Early Spring (January)	October 15	November 15

Visit the IMC website for comprehensive information about the online graduate program, including faculty biographies, curriculum and course information, details on the application and admissions process, and to register for a free online information session (http://imc.wvu.edu/admissions/info_sessions).

Also, the IMC program hosts its annual INTEGRATE (http://imc.wvu.edu/integrate) conference in Morgantown, WV. The conference is the largest professional Integrated Marketing Communications (IMC) conference offered by a university program. INTEGRATE is your opportunity to talk about the hottest topics in IMC, build your professional network, and learn more about the graduate program.

Degree Requirements

Minimum GPA of 2.75 required.

Minimum grade of C- required in all courses.

Core Courses		
IMC 610	Introduction to Integrated Marketing Communications [*]	3
IMC 611	Marketing Research and Analysis	3
IMC 612	Audience Insight	3
IMC 613	Brand Equity Management	3
IMC 619	Emerging Media and the Market	3
Complete a minimum of two of the following [**]		6
IMC 615	Creative Strategy and Execution	
IMC 616	Direct Marketing	
IMC 618	Public Relations Concepts and Strategy	
IMC Elective Courses		
Select at least three IMC courses 600-level and above.		9
IMC 636	Integrated Marketing Communication Campaigns [***]	3
Total Hours		**33**

[*]   Students complete the IMC 610 course in their first term in the program. Following successful completion of IMC 610, students are able to take courses in virtually any order, ensuring a fully customized path of study.

[**]   IMC students are often admitted to the program with substantial work experience and are able to opt out of the core course that is most reflective of their professional experience. Specifically, PR practitioners are encouraged to opt out of IMC 618, direct marketers are encouraged to opt out of IMC 616, and creative/graphic designers are encouraged to opt out of IMC 615. All students must complete at least two of these three courses.

*** IMC students are able to take more than 33 credit hours if their personal and/or professional interests require (including additional elective courses or opting to complete all the core courses to ensure a comprehensive graduate experience). However, all additional courses taken must be completed before the student registers for the capstone course (IMC 636).

Upon successful completion of IMC 636 in the student's final term, the student will graduate from the program.

First Semester	Hours
IMC 610	3
	3
Second Semester	**Hours**
IMC 611	3
IMC 612	3
	6
Third Semester	**Hours**
IMC 613	3
Select one of the following:	3
IMC 615	
IMC 616	
IMC 618	
	6
Fourth Semester	**Hours**
IMC 619	3
Select one of the following:	3
IMC 615	
IMC 616	
IMC 618	
	6
Fifth Semester	**Hours**
Select two 600-level or higher IMC courses	6
	6
Sixth Semester	**Hours**
IMC 636	3
Select one 600-level or higher IMC course	3
	6

Total credit hours: 33

Master of Science in Journalism

The master of science in journalism (M.S.J.) program in the Reed College of Media is designed to help persons involved in various aspects of mass communication to better understand and to cope not only with the increased complexity of their own majors but also with fields outside mass communications.

The program, created to assist each student in reaching his/her potential as a worker, teacher, or scholar in mass communications, prepares a master's candidate not only for a first job but also for long-term and productive career development through the study of mass communications and related fields. Students who obtain the M.S.J. degree should excel in professional skills.

The M.S.J. program is intended to afford liberal arts graduates an opportunity to concentrate advanced study in mass communication; to provide intensive study for persons who have undergraduate journalism training and who wish to pool their journalistic skills with extensive knowledge in another substantive area or areas (e.g., political science, economics, science); and to give persons who have had considerable professional experience an opportunity to broaden their academic bases through carefully selected advanced studies.

Assistantships and Tuition Waivers

Approximately five assistantships are available in the College of Media each academic term. Graduate assistants teach laboratories and assist professors with their courses and research. Interns work in mass communications-related jobs on campus to obtain solid professional experience.

Students may receive stipends for the academic term and may apply for tuition remission for the entire year. Although sometimes renewed for a second or third term, assistantships and internships are granted for one academic term. Graduate assistants and interns work an average of twenty hours per week during the academic year.

Persons who wish to be considered for assistantships or internships should have their applications on file with the Director of Graduate Studies before March 1 of the same year.

Tracks

The College of Media offers two tracks—the teaching/research track and the professional track—within the M.S.J. program.

Teaching/Research

The teaching/research track is generally a program for persons who wish to pursue a Ph.D., to teach at the college/university level, and to conduct research in areas of mass communications. Persons in this track normally take research and theory courses both inside and outside the College of Media, statistics, and social science courses. The program culminates in a thesis, which is a scholarly theoretical study of an important aspect of mass communications.

Professional

The professional track is designed primarily for persons who wish to become excellent practitioners in some field of mass communications and who have less desire to teach or to become mass communications researchers. Persons in the professional track normally take communication and outside area courses that will help them to become better practitioners. The program culminates in a professional project, which helps a student to extend his/her practical and theoretical knowledge about a given aspect of mass communications and should be a non-routine project on which the student could work as a professional.

Time Limitation

Students must complete all graduate degree requirements, including either a thesis or a professional project, within eight years of beginning the initial coursework of the program. After this period, courses must be revalidated according to the procedures set forth in the WVU Graduate Catalog.

Maintenance of Scholarship

A journalism graduate student must maintain satisfactory progress toward his/her M.S.J. The candidate's graduate record begins with the first course credited toward the master's and includes all subsequent courses. Every graduate student must maintain at least a 3.0 grade point average and complete all requirements within eight years. Anyone who fails to meet this standard will be subject to academic probation and possible dismissal from the program.

Each person working toward the M.S.J. should register for at least one hour during every regular (fall and spring) term. This enrollment may be in coursework or in Research.

International Students

Believing that mutual benefit is derived when scholars from other countries study in the Reed College of Media, the faculty welcomes international students. At the same time the faculty recognizes that journalism, more than any other field, requires language skill. To profit from journalism study, international students must have a ready understanding of English. International students, for whom English is not their official language, must include TOEFL scores. The minimum TOEFL scores needed for consideration at WVU are 550 (paper test), 213 (computer test), and 79 (internet test).

Admission

Admission to the M.S.J. program is limited to recipients of baccalaureate or equivalent degrees from institutions of higher learning. Applicants should have combined verbal and quantitative Graduate Record Examination (GRE) Aptitude Test scores of 153 Verbal and 144 Quantitative and should have earned at least 3.0 cumulative grade point average (GPA) on a 4.0 scale. Each applicant should submit to the College of Media Director of Graduate Studies a detailed statement of purpose explaining why the student wishes to undertake graduate study in journalism, what the student hopes to glean from the graduate journalism program, what his/her long-term goals are, and how graduate education in journalism can help achieve those goals.

An applicant who does not meet the minimum GRE and/or GPA requirement(s) may be accepted only if the low GPA or GRE scores are offset by extraordinary factors. Excellent recommendations, unusual grading patterns (e.g., a steady rise of grades), an outstanding statement of purpose, or examples of professional accomplishment sometimes can offset low GRE scores or a low GPA.

Students applying for admission to the M.S.J. program are encouraged to send nonreturnable supporting material to the College of Media Director of Graduate Studies. A list of these materials can be found at: http://journalism.wvu.edu/graduate/master-of-science-journalism.

All other materials (e.g., transcripts, GRE scores, application forms) should be sent to the Office of Admissions.

Students may also apply online at: https://app.applyyourself.com/AYApplicantLogin/ApplicantConnectLogin.asp?id=wvugrad.

Degree Requirements

A minimum GPA of 3.0 is required in all courses

JRL 600	Introduction to Graduate Studies	1
JRL 604	Mass Media and Society	3
JRL 620	Advanced Journalistic Writing and Research	3
JRL 689	Ethics of Mass Communication	3
JRL 698	Thesis or Dissertation	1-6
College of Media electives		9
Electives Outside the College of Media [*]		5
Research		3-6
Total Hours		**30**

[*]   A minimum of 18 credit hours must be earned in the College of Media. Remaining credit hours should be taken outside of the College of Media. Students who choose to write a thesis must register for at least 3 credits of Research (JRL 697) and 3 credits of Thesis or Dissertation (JRL 698). Students who write a professional project must register for at least 6 credits of Research (JRL 697).

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours
JRL 600	1	JRL 620	3
JRL 604	3	JRL 689	3
Electives[*]	6	Electives[*]	3
	10		**9**

Second Year

Fall	Hours	Spring	Hours
JRL 697[**]	3	JRL 697[**]	3
Electives[*]	6	JRL 698[**]	3
		Electives[*]	3
	9		**9**

Total credit hours: 37

[*]   Various electives. In both programs, sixty percent of the graduate credits submitted for the degree (eighteen credits) must be in courses numbered 500–799

[**]   Students who choose to write a thesis must register for at least 3 credits of Research (JRL 697) and 3 credits of Thesis or Dissertation (JRL 698). Students who write a professional project must register for at least 6 credits of Research (JRL 697).

Students should note that the majority of credits submitted for the degree must be in courses numbered 500 or above.

The thesis or professional project will be graded as an S or U (satisfactory or unsatisfactory).

Except for thesis, professional project, and internship courses, no student may take a course on a P/F or S/U grade basis without prior approval of the Director of graduate studies.

THESIS/PROFESSIONAL PROJECT

Each student must complete a thesis or a professional project involving original work in his/her area of interest. The master's candidate should have a thesis or professional project proposal written by the end of the academic term in which the first twelve hours of coursework are completed.

Each student is responsible for developing ideas for the thesis or professional project. Through consultations with journalism faculty, the student can determine faculty interests and areas of expertise; he/she then refines a preliminary idea to a significant, feasible thesis/project topic.

Normally students will enroll for six credit hours of theses/research courses. The Director of Graduate Studies must approve any deviations from this norm.

In addition to this six-hour limit, no graduate student will be permitted to enroll in more than six hours of research and/or colloquium courses without approval from the director of graduate studies.

ADVISORY COMMITTEE

The student, with approval of the director of graduate studies, selects a journalism graduate faculty member who would be best able to chair his/her Advisory Committee, subject to the agreement of the faculty member. If questions arise about a faculty member's interest or knowledge, the student should consult the director of graduate studies. With the chairperson, the student further refines the topic to a "preliminary proposal" stage, in which concepts and appropriate methodology are on paper but not necessarily in formal proposal form.

After the student has written a preliminary proposal and selected a faculty chairperson, the student should select other members of his/her committee, subject to their willingness to serve. The committee must consist of no fewer than four members and at least two persons must be members of the WVU faculty; others may be from other departments at WVU. Committee chairs must be members of the College of Media graduate faculty. The fourth member of all theses committees must be affiliated with the graduate program at an accredited university (or another department at WVU). The fourth member of professional project committees may be from the professional realm.

PROPOSALS

At this point, students in the thesis/professional track must submit proposals to their committee, which must approve all topics (but not research methods, specific research questions, or hypotheses, etc.). Students may attend the meetings at which their proposals are discussed. After securing committee approval, students schedule a proposal defense date. Proposal defenses are required of all students.

Working under the committee's guidance, each student revises the thesis or project proposal, extended from the preliminary proposal. Guidance for designing a proposal is available from the Director of Graduate Studies.

Once the committee agrees that the proposal is ready, a proposal defense is scheduled.

FINAL THESIS/PROJECT APPROVAL

After the thesis/project proposal defense, the committee votes to accept or to reject a proposal. The student whose proposal is approved works closely with a committee to complete his/her final thesis or project. A master's candidate must inform his/her committee and consult its members for advice (as needed and as desired by them) as the thesis or project develops.

After each advisory committee member is satisfied with the thesis or project, a final defense is scheduled. Announcements of the defense should be posted in Martin Hall. Students also should make certain that they file their thesis/project signature form with the director of graduate studies (and the University Libraries) two weeks before their defense date.

Only committee members may vote on acceptance or rejection of a thesis. Although someone may cast a recorded dissenting vote, a majority vote is sufficient to approve a thesis/project. Furthermore, at least three signatures (two of which must belong to College of Media faculty members) must appear on the approval sheet.

Master's candidates should follow APA or another approved stylebook during preparation of a thesis or professional project.

Each committee chairperson will ultimately decide whether the candidate has properly made the requested corrections (after the final defense); that chairperson also will check the style and form of the final version. Every graduate student is responsible for delivering a copy of a final thesis or professional project to the director of graduate studies; he/she also must file a thesis or professional project electronically (to the University Library) before the academic term's deadline.

School of Medicine

Degrees Offered

- M.D., Doctor of Medicine
- M.D./Ph.D., Joint Doctor of Medicine and Doctor of Philosophy
- Ph.D., in Biochemistry and Molecular Biology
- Ph.D. in Cancer Cell Biology
- Ph.D. in Cellular and Integrative Physiology
- M.S. in Clinical and Translational Science
- Ph.D. in Immunology and Microbial Pathogenesis
- Ph.D. in Neuroscience
- M.H.S. in Pathologists' Assistant
- B.S., M.S., Ph.D., Exercise Physiology
- M.S. in School Health Education
- B.S. in Medical Laboratory Science
- M.O.T., Master of Occupational Therapy
- D.P.T., Doctor of Physical Therapy
- Ph.D., Pharmaceutical and Pharmacological Sciences
- M.D./M.P.H., Doctor of Medicine and Master of Public Health
- M.S., Biomedical Sciences
- M.S., Health Sciences

Introduction

The West Virginia University School of Medicine is a part of the Robert C. Byrd Health Sciences Center, a comprehensive academic health system with three campuses in the state, a network of affiliated hospitals and practice plans, and a mission of education, research, clinical care, and service to the state. On the main Morgantown campus, students have access to a full range of research and clinical facilities, including a relatively new, four-story laboratory building and a wide range of advanced research centers. West Virginia University hospitals feature sophisticated medical technology, including magnetic resonance imagery, lithotripsy, and laser surgery; the campus includes a large and busy tertiary hospital, a trauma center, children's hospital, cancer center, a psychiatric hospital, primary care and specialty clinics, a rehabilitation hospital, and many other patient care facilities.

Biomedical sciences graduate programs (in collaboration with School of Pharmacy) offer Ph.D. training in seven areas: biochemistry and molecular biology; cancer cell biology; cellular and integrative physiology; exercise physiology; immunology and microbial pathogenesis; neuroscience; and pharmaceutical and pharmacological sciences. Biomedical sciences graduate students take a common core curriculum the first semester/year and match with a faculty mentor and self-select into their specialty areas after the first semester or at the end of year one. There is also a M.S. degree in the Biomedical Sciences. Core coursework for this M.S. degree is similar to that of the first semester/year of Ph.D. training in the biomedical sciences.

Students in professional programs, such as the M.D. degree program in the School of Medicine, may obtain a master's of public health degree through several options available in collaboration with the School of Public Health. There is also a combined M.D./Ph.D. joint degree option for students interested in pairing medical and basic science education at the doctoral level.

The Department of Human Performance and Applied Exercise Sciences offers graduate degrees in the clinical areas of exercise physiology, physical therapy, and occupational therapy. There is also a master's of health sciences degree (M.H.S.) for the pathologist's assistant available through the Department of Pathology. All graduate and professional programs in the School of Medicine complement other existing programs in health professions offered through other schools (dentistry, nursing, and pharmacy and public health) which are part of the Health Sciences Center.

The M.S. in Clinical and Translational Science, housed within the West Virginia Clinical and Translational Science Institute, fosters the training and career development of health professionals in clinical and translational research.

The M.S. in Health Sciences is a 12-month, non-thesis master's program that targets students who desire to enhance their competitiveness for entry into advanced professional or graduate programs or who are interested in more in-depth study in biomedical or public health disciplines.

ADMINISTRATION

DEAN

- Clay Marsh - M.D. (West Virginia University)

VICE DEAN FOR MEDICAL EDUCATION & ACADEMIC AFFAIRS

- Norman D. Ferrari III - M.D. (West Virginia University School of Medicine)

VICE DEAN FOR CLINICAL SERVICES & CMO WVU HEALTHCARE

- Judie Charlton - M.D. (West Virginia University School of Medicine)

ASSOCIATE DEANS

- Scott A. Cottrell - Ed.D. (West Virginia University School of Medicine)
  Student Services and Curriculum
- Barbara Ducatman - M.D. (Albany Medical College)
  Faculty Services
- James P. Griffith - M.D. (West Virginia University School of Medicine)
  Charleston Campus Student Services
- Maria Kolar - M.D. (West Virginia University School of Medicine)
  Veterans Affairs
- Rosemarie Cannarella Lorenzetti - M.D. (West Virginia University School of Medicine)
  Eastern Campus Student Services
- Timothy Palencik - M.B.A.
  Finance
- James M. Stevenson - M.D. (West Virginia University School of Medicine)
  Development

ASSISTANT DEANS

- Kathleen Bors - M.D. (West Virginia University School of Medicine)
  Charleston Campus
- James Brown - M.D. (Meharry Medical School)
  Eastern Campus
- Hannah Hazard - M.D. (West Virginia University School of Medicine)
  Admissions
- Fred L. Minnear - Ph.D. (Oregon Health Sciences University)
  Graduate Studies
- Jamal Mustafa - Ph.D. (Lucknow University, India)
  Research
- David Wilks - M.D. (University of Pittsburgh School of Medicine)
  Medical Education Technology

ASSOCIATE DEAN FOR PROFESSIONAL AND UNDERGRADUATE PROGRAMS

- MaryBeth Mandich - Ph.D. (West Virginia University School of Medicine)
  Professional & Undergraduate Programs

ASSOCIATE VICE PRESIDENT FOR HEALTH SCIENCES

- Konrad Nau - M.D. (West Virginia University School of Medicine)
  Dean, Eastern Campus

SENIOR ASSOCIATE DEAN/CHIEF ADMINISTRATIVE OFFICER

- John Worth - M.B.A. (State University of New York, Buffalo)

Degree Designation Learning Goals

Master of Science (MS) in the Biomedical Sciences

This program is designed to assist in the selection of a career path, albeit industry, teaching, or a professional program, and/or for the transition to a biomedical Ph.D. program. The first-year curriculum imparts a fundamental understanding of the functional components of a cell and the basis for regulation of cellular processes and organ systems. After selecting a mentor, students take additional courses that align with their research interests.

Students will:

- Integrate molecular, cellular, and integrative systems concepts
- Critically interpret the current scientific literature
- Develop critical thinking and problem-solving skills
- Design and interpret experiments to test molecular, cellular, and integrative systems mechanisms

- Demonstrate technical skills in conducting scientific experimentation
- Articulate, verbally and in writing, their understanding of concepts during scientific discussions
- Discuss relevant scientific ethical issues presented as case studies
- Engage with fellow students and faculty and demonstrate teamwork

Master of Science (MS) in Clinical and Translational Science

This program is designed to foster the training and career development of health professionals in clinical and translational research. The target group for this program is junior faculty, fellows, residents, and PhDs. Trainees acquire a well-rounded education in the areas of biostatistics, epidemiology, translational science, clinical trials, scientific ethics, and scientific writing (grant and manuscript) and obtain research training in a mentored environment.

Students will:

- Differentiate between parametric and nonparametric methodologies
- Test hypotheses, using statistical software (SAS, R) to perform basic biostatistical analyses
- Examine mortality and morbidity trends
- Measure frequency and association
- Design research studies and interpret data
- Screen from an epidemiological perspective
- Translate research discoveries into policies and practices that promote health
- Critically evaluate the clinical trial literature
- Design an original clinical trial
- Write a grant proposal and manuscript
- Discuss relevant scientific ethical issues presented as case studies

Master of Science (MS) in Exercise Physiology

This program is designed with a clinical and a thesis track. The clinical track specializes in working with persons with diseases such as obesity, cardiovascular disease, and diabetes and aging. The thesis track provides opportunities for students to study mechanisms leading to and contributing to health diseases and disparities and to understand the impact of exercise on these health issues. The graduates of the masters program will become leaders who will supervise Exercise Physiologists in hospitals, rehabilitation, aquatic therapy programs, fitness, or academic settings.

Students will:

- Critically apply theories, methodologies, and knowledge to address fundamental questions in health specific issues related to exercise physiology
- Demonstrate skills in written and oral communication and critical thinking by critically analyzing research that is significant and novel in exercise physiology and within the sub-discipline associated with it
- Plan and conduct this research or implement this project under the guidance and approval of their research mentors while developing the intellectual independence that typifies true scholarship (thesis track students)
- Critically evaluate published research data and demonstrate clinical skills in working with patients and evaluating health and exercise-stress test data for appropriate exercise treatment (clinical track students)
- Follow the principles of ethics associated with appropriate research conduct (thesis track students) or clinical treatment of patients (clinical track students)
- Interact productively with people from diverse backgrounds including mentors and team members/peers with integrity and professionalism

Master of Science (MS) in the Health Sciences

This is a terminal degree program targeting students interested in developing their skills toward a career requiring knowledge in the biomedical sciences. The objectives of this program are to:

- Provide integrative scientific education in the biomedical and public health sciences to graduates from an accredited undergraduate institution
- Develop integrative and critical thinking skills to allow application of scientific knowledge to traditionally non-scientific fields
- Train students in the rudiments of research on a basic science, public health, or clinical topic, including hypothesis testing, data collection, and manuscript preparation
- Enhance students' competitiveness for admission to a health professional and/or Ph.D. program
- Provide the opportunity to explore career options in various health professional disciplines
- Enhance skills for job placement including resume and cover letter evaluation, and interviewing preparation

Students will:

- Demonstrate mastery of basic science information in at least two basic science courses

- Demonstrate mastery of core public health knowledge
- Be able to learn new information via reading the scientific literature and attending seminars
- Demonstrate mastery of public speaking and written communication skills
- Be able to develop novel hypotheses, collect data to test this hypothesis, and report their findings
- Enhance their competitiveness for career placement

MASTER OF OCCUPATIONAL THERAPY (MOT)

This program is designed to meet the needs of rapidly changing and dynamic health and human services delivery systems that require the occupational therapist to possess basic skills as a direct care provider, consultant, educator, manager, researcher, and advocate for the profession and the consumer.

Students will:

- Successfully complete the coursework and fieldwork components of the program; completing the program with a grade point average of 3.0 or higher and a passing grade on all fieldwork
- Graduate within a time frame of three years following acceptance to the program; completing all academic work, clinical fieldwork, and community service within that time frame
- Demonstrate professional behaviors, attitudes, and values that are in agreement with and as outlined in the West Virginia Student Occupational Therapy Program Handbook and the American Occupational Therapy Association (AOTA) Occupational Therapy Code of Ethics and Ethics Standards
- Demonstrate an appreciation for the attitudes, values, and behaviors of peoples of various cultures and backgrounds
- Utilize an occupation and evidence-based approach as components of occupational therapy practice.
- Successfully complete all elements of a master degree level research project including an oral presentation.
- Demonstrate the ability to adapt to appropriate, varying, and novel situations and circumstances within their educational and clinical environments.
- Demonstrate the ability to frame issues and problems of human occupation that are consistent with and reflective of current frames of reference and theoretical models and approaches within the profession of Occupational Therapy.
- Demonstrate an appreciation for and understanding of the value of professional advocacy and promotion of the profession of Occupational Therapy
- Demonstrate entry-level competence in areas of evaluation, treatment, communication, critical reasoning, and leadership upon graduation
- Develop the skills necessary, as well as an appreciation, for becoming a life-long learner

All graduates must:

- Have acquired, as a foundation for professional study, a breadth and depth of knowledge in the liberal arts and sciences and an understanding of issues related to diversity
- Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service
- Have achieved entry-level competence through a combination of academic and fieldwork education
- Be prepared to articulate and apply occupational therapy theory and evidence-based evaluations and interventions to achieve expected outcomes as related to occupation
- Be prepared to articulate and apply therapeutic use of occupations with individuals or groups for the purpose of participation in roles and situations in home, school, workplace, community, and other settings
- Be able to plan and apply occupational therapy interventions to address the physical, cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday life activities that affect health, well-being, and quality of life
- Be prepared to be a lifelong learner and keep current with evidence-based professional practice
- Uphold the ethical standards, values, and attitudes of the occupational therapy profession
- Understand the distinct roles and responsibilities of the occupational therapist and occupational therapy assistant in the supervisory process
- Be prepared to effectively communicate and work inter-professionally with those who provide care for individuals and/or populations in order to clarify each member's responsibility in executing components of an intervention plan
- Be prepared to advocate as a professional for the occupational therapy services offered and for the recipients of those services

Be prepared to be an effective consumer of the latest research and knowledge bases that support practice and contribute to the growth and dissemination of research and knowledge

DOCTOR OF PHYSICAL THERAPY (DPT)

This program is designed to educate individuals with the knowledge, skills, and behaviors consistent with professional excellence. Working as part of a community of professionals, the program strives to advance practice characterized by independence, professional judgment, and involvement.

Graduates will:

- Demonstrate basic and applied knowledge necessary to practice PT as a member of the health care team in diverse settings
- Demonstrate the ability to make sound clinical decisions using information literacy skills, critical thinking, and scientific evidence
- Find employment with special emphasis on recruitment and retention of graduates in WV
- Adhere to core professional values
- Demonstrate the ability to practice independently
- Adhere to legal and ethical standards
- Demonstrate a life-long commitment to the profession by activity in professional organizations, scholarship, education, and advocacy
- Deliver high quality physical therapy services to individuals and communities across a continuum of care, including rural settings.
- Demonstrate sound, independent clinical decisions utilizing information literacy, critical thinking skills, and scientific evidence
- Function as a unique member of the health care team, including receiving and providing appropriate referrals
- Provide culturally sensitive care distinguished by advocacy, trust, respect, and an appreciation for individual differences
- Demonstrate a commitment to the health of the community through participation in primary and secondary prevention programs
- Actively engage in local and professional advocacy in a changing health care environment

DOCTOR OF MEDICINE (MD)

This program is designed for students to develop knowledge, skills, and attitudes across six (6) competency areas: Patient Care, Medical Knowledge, Practice-Based Learning and Improvement, Interpersonal and Communication Skills, Professionalism, and Systems-Based Practice.

Students will:

Provide patient care that is compassionate, appropriate, and effective and promote life-styles that promote improved health:

- Gather essential and accurate patient information, including a complete and appropriately organized medical history and physical examination
- Evaluate patient information in order to formulate complete and accurate differential diagnoses and apply appropriate diagnostic tests to confirm diagnoses
- Develop patient management plans that are evidenced-based and considerate of cultural and ethnic preferences
- Counsel and educate patients and their families about prevention strategies, diagnostic tests, treatment options/plans, and patient orders/prescriptions
- Perform medical procedures appropriately and professionally
- Partner with patients to prevent health problems and improve health status

Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences and apply this knowledge to patient care:

- Describe normal structure and function of the human body and each organ system over the lifespan
- Describe molecular, cellular, and biochemical mechanisms of homeostasis
- Describe and apply normal cognitive and social growth and development of humans to diagnose abnormal cognitive and social development
- Describe causes of altered structure and function of organ systems and tissues that result in disease (genetic, developmental, nutritional, toxic, infectious, inflammatory, neoplastic, degenerative, traumatic, and behavioral)
- Describe foundations of diagnostic methods, therapeutic interventions, outcomes, and prevention with respect to specific disease processes in individuals and populations
- Describe genetic and physiologic basis of individual patient response to drugs
- Describe and apply foundational principles of epidemiology, statistics, and ethics to diagnosis and treatment of disease
- Explain the effect of social determinants, health behaviors, and preventative measures on health status and disease of individuals and populations
- Demonstrate use of scientific method and critical evaluation of scientific literature in establishing causation, diagnosis, and therapy of disease

Demonstrate the ability to investigate and evaluate their role in the care of patients, to appraise and assimilate scientific evidence, and to continuously improve their role in patient care based on constant self-evaluation and learning:

- Locate, appraise and assimilate evidence from scientific studies including basic, clinical, translational, and community (population) based research
- Apply knowledge of study designs and statistical methods to appraise studies
- Use information technology to manage information and support patient care decisions
- Develop the skills necessary for lifelong learning, as evidence by demonstrating independent and self-directed study
- Utilize strategies to identify and analyze strengths, deficiencies, and limits in one's knowledge, collaboration skills, and professionalism

Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, peers, and health professionals:

- Communicate effectively and demonstrate caring and respectful behaviors with patients and families across a broad range of socioeconomic and cultural backgrounds
- Collaborate with a team of health care professionals to provide patient-focused, preventive, acute, chronic, continuing, rehabilitative, and end-of-life care
- Provide an accurate and complete oral presentation of a patient encounter
- Demonstrate effective communication and collaboration with all members of a health care team
- Write timely, legible, accurate and complete documentation of a clinical encounter in written or electronic format

Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles:

- Demonstrate respect, compassion, integrity, responsiveness to needs of patients, society, and profession that supersedes self-interest
- Demonstrate a commitment to ethical principles, including provision or withholding of care, confidentiality, informed consent, and respect for patient privacy and autonomy
- Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in culture, age, gender, race, religion, disabilities, sexual orientation, and health
- Create and sustain a therapeutic and ethically sound relationship with patients
- Demonstrate timeliness and punctuality in the execution of learning and clinical duties

Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to learn about other resources in the system to promote optimal health care:

- Define the roles of health care professionals and demonstrate how inter-professional collaboration improves patient safety, patient-centered outcomes, and system performance
- Describe and distinguish effective methods of organizing, financing, and providing health care
- Describe how the prevention and treatment of healthcare disparities may affect individual patients, populations, and the healthcare system
- Advocate for quality patient care, as evidenced by recognizing system limitations and failures and contributing to healthcare safety and improvement

DOCTOR OF PHILOSOPHY (PHD)

PhD in the Biomedical Sciences

The first semester of year one in the Biomedical Sciences Graduate Programs is an undifferentiated semester in which students take coursework that covers topics important to all biomedical sciences graduate programs and conduct three short lab experiences to assist in the selection of a faculty mentor for dissertation research. The intended outcomes of the undifferentiated first semester/year are to pass coursework of the core curriculum and conduct satisfactory research during each rotation; match with a faculty investigator who will guide the student to completion of dissertation research; and successfully transfer into one of the Ph.D. degree-granting biomedical sciences programs.

Students will:

- Integrate molecular, cellular, and integrative systems concepts
- Critically interpret the current scientific literature
- Develop critical thinking and problem-solving skills

Demonstrate technical skills in conducting scientific experimentation

- Articulate, verbally and in writing, the understanding of concepts during scientific discussions
- Discuss relevant scientific ethical issues presented as case studies
- Engage with fellow students and faculty and demonstrate teamwork

PhD in Biochemistry & Molecular Biology

Students will:

- Demonstrate a general knowledge of physics, chemistry, biology and cell biology, biochemistry and molecular biology, and a detailed knowledge of his or her area of research
- Be familiar with the research literature in biochemistry and in their specific field of study and should have the ability to keep abreast of major developments and to acquire a working background in any area
- Demonstrate skill in the recognition of meaningful problems and questions for research in Biochemistry and Molecular Biology
- Possess technical skill in laboratory manipulation
- Demonstrate that oral, written, and visual communication skills have been acquired
- Demonstrate skill in designing experimental protocols and in conducting productive self-directed research

PhD in Cancer Cell Biology

Students will:

- Stimulate critical thinking and communication of content related to cancer research to expert and non-expert audiences
- Understand the fundamental aspects of cancer origin, progression, and treatment
- Develop a basic understanding of the cancer types recognized as national health disparities to state residents
- Acquire in-depth knowledge about specific molecular and cellular aspects of cancer biology germane to the specific studied cancer type
- Become skilled in writing, publishing, and presenting cancer-based research findings to respected peer-reviewed journals, as well as at institutional, regional, and national meetings
- Understand the additional impact of student-based cancer research related to community outreach and health outcomes in the West Virginia, national, and international populations
- Understand how basic science advances in cancer research correspond and potentially impact changes in clinical patient management (bench to bedside)
- Be able to interact with and comprehend fundamental aspects of clinical cancer care in a cancer-specific manner and how it pertains to basic cancer research (bedside to bench)
- Remain current with recent advances in the cancer literature and with major advances in the field during and after graduation from the program
- Be competitive in securing and conducting post-doctoral research in academic, industrial, or government settings
- Be prepared to pursue alternative non-research careers related to cancer in fields of their choosing

PhD in Cellular & Integrative Physiology

Students will:

- Develop a vocabulary of appropriate terminology to effectively communicate information related to physiology
- Recognize anatomical structures and explain physiological functions of body systems
- Recognize and explain the principle of homeostasis and the use of feedback loops to control physiological systems
- Use anatomical knowledge to predict physiological consequences, and use knowledge of function to predict the features of anatomical structures
- Recognize and explain the interrelationships within and between anatomical and physiological systems of the human body
- Synthesize ideas to make a connection between knowledge of anatomy and physiology and real-world situations, including healthy lifestyle decisions and homeostatic imbalances
- Interpret graphs of anatomical and physiological data
- Demonstrate information literacy skills to access, evaluate, and use resources to stay current in the field of physiology
- Approach and examine issues related to physiology from an evidence-based perspective
- Communicate clearly and in a way that reflects knowledge and understanding of physiology and demonstrates the ability to adapt information to different audiences and applications

PhD in Exercise Physiology

Students will:

- Attain a comprehensive understanding of the important cellular and system processes that are regulated by exercise, lack of exercise, and clinically relevant diseases
- Develop a vocabulary of appropriate terminology to effectively communicate information related to exercise physiology
- Acquire a foundation for critically applying theories, methodologies, and knowledge to address fundamental questions in health-specific issues related to exercise physiology
- Obtain independent and critical thinking skills requisite for designing, conducting, and interpreting research data in an effort to advance knowledge related to health and disease through creative and innovative research
- Effectively communicate knowledge through oral and written means by disseminating research findings that have the potential to improve the health and livelihood of citizens of the state, nation, and world
- Demonstrate principles of ethics associated with appropriate research conduct

PhD in Pharmaceutical & Pharmacological Sciences

Students will:

- Be able to pursue independent research in specialized fields in interdisciplinary teams and to function and contribute as members of research teams
- Be competent scientists able to contribute to health-related research, industrial research and development, pharmaceutical education, and scholarship
- Learn basic and applied principles in specific disciplines and related fields in order to develop a broad background of knowledge

- Develop research skills including scientific communication and critical thinking/problem solving ability by participating in seminars and designated research skill courses
- Gain hands-on experience in conducting original research, including acquisition of background information (e.g., literature research), experimental design, and experimentation
- Develop research communication skills by writing abstracts for research presentations, manuscripts for publication, research grant proposals, and a thesis or dissertation
- Gain additional insight into research and scholarship by participating in scholarly exchanges with faculty and students in the WVU School of Pharmacy, the Health Sciences Center (HSC), and the West Virginia University community

Doctoral Degrees

Doctoral students in most graduate programs are required to present a minimum of six one-hour graduate seminars to faculty and students before graduating. Doctoral students who desire to obtain additional teaching will be able to obtain this as part of their training. Students are expected to present their research data at national meetings and publish their data in appropriate peer-reviewed journals prior to graduation. However, the student's faculty advisor must give approval before any research or scholarly material is submitted for presentation or publication, and the material must recognize all appropriate co-authors and grant sources.

Required Research Participation

Because the Doctor of Philosophy is a research degree, students will be expected to be involved in research from the beginning of their programs. Doctoral students participate in research rotations with faculty during the first, and if necessary, the second semester of enrollment. Students may choose a dissertation advisor in the first semester of study or by the end of year one. With the aid of the student's advisor a dissertation committee is chosen in the second year of enrollment. Students should work with their dissertation advisor to design appropriate pilot studies and with the data identify a dissertation project and appropriate research questions/hypothesis to be tested by the proposed research. All approved research projects must be hypothesis-based, and whenever possible, the research questions should address mechanistic questions that explain biological phenomenon relevant to the field of study.

Research is conducted throughout the doctoral program with the requirement that one manuscript, based on the student's dissertation research, is accepted for publication in a peer-reviewed scientific journal before defense of Ph.D. dissertation research. Students should strive to present their research findings at a minimum of one national/international meeting annually beginning in the second year of enrollment in the doctoral program.

Directed Research

All preliminary research must be collected under the supervision and approval of the dissertation chair, which is most graduate programs is the student's advisor. The student is expected to engage in directed research under the supervision of the dissertation advisor to learn techniques and collect pilot data that will be the basis of a future dissertation project. Studies to obtain pilot data should be presented to the dissertation committee to demonstrate the student's competency in research skills and that his/her research ideas and hypotheses are appropriate and justified. This process facilitates progression through the program in a timely and efficient manner. Nevertheless, the dissertation committee may require the student to obtain additional pilot data or research skills prior to approving the research proposal as a dissertation topic. The student's directed research efforts should be progressing towards approval of a dissertation topic from the members of the dissertation committee, once they have been identified (before the end of the first semester of year two). This research training will provide the student background data/information from which to base a pre-doctoral grant proposal and dissertation topic as part of the requirements for completing the defense of the Dissertation Proposal.

Comprehensive/Qualifying Examination

The comprehensive (qualifying/candidacy) examination is usually given after most formal coursework has been completed and, in general, will test the scientific knowledge pertinent to the student's chosen Ph.D. training program. The individual graduate programs conduct these examinations at different times and use different formats. Depending on the graduate program, the qualifying exam is scheduled either at the end of year one or year two or in association with the proposal defense.

Requirements of the Dissertation Proposal/Candidacy Examination

Graduate students are admitted to Ph.D. candidacy after successfully defending the Dissertation Proposal. The candidacy examination consists of writing a grant proposal, formatted similar to a National Institutes of Health pre-doctoral grant, and orally defending the dissertation proposal to the student's dissertation committee. Advancement to candidacy means that in the judgment of the faculty, the doctoral student has an adequate knowledge of their research area, knows how to use academic resources, and has potential to do original independent research . In other words, the student is qualified to complete the doctoral dissertation. No student with a grade point average of less than 3.0 will be eligible to take this examination. Normally, the oral examination of the Dissertation Proposal is set within two to four weeks following the acceptance of the written proposal. However, the oral exam component can only be scheduled if the members of the dissertation committee judge the written submission to be acceptable (or acceptable pending minor revisions).

Failure to successfully complete the Comprehensive Examination or the Dissertation Proposal after two attempts is grounds for dismissal. A student must petition and receive approval from the dissertation committee to retake either exam a second time.

Submission of Written Research Proposal to a Funding Agency

The written portion of the candidacy examination also serves an additional purpose. Graduate students are expected to submit at least one grant proposal to an external granting agency by the end of the third year of enrollment. Constructing the proposal is part of the requirements for graduation. The candidacy examination provides the graduate student the opportunity to complete these requirements for submitting the grant proposal while also assembling ideas for the dissertation project.

The student should wait until successfully negotiating the candidacy examination and revise the grant according to the suggestions of his/her dissertation advisor and dissertation committee. Graduate students should not submit a grant proposal without input, feedback, and approval from these faculty members. It is acceptable and appropriate for the student to obtain feedback from all members of the dissertation committee before submitting it to a funding agency.

The submission of the grant proposal to a funding agency should be used to: (a) seek a graduate student stipend and other research supplies as allowed by the external source, (b) seek funding for travel to national/international meetings if it is permitted by the funding agency, (c) obtain independent external review of the student's research proposal/dissertation project, and/or (d) obtain experience in writing grants for external funding.

General Dissertation Requirements

The purpose of the dissertation is to provide experiences that will assist the student in becoming an independent investigator and constructing manuscripts from the data collected in the research process. Typical dissertation projects will be about three years in length.

The student must complete a dissertation in which they have obtained original data that makes a novel and important contribution to knowledge in the field of study and submit all manuscripts containing these data to peer-reviewed journals. The dissertation must be constructed in a format suitable to the graduate school and the advisor. Preferable formats will include writing the data chapters as if they have been submitted to peer-reviewed journals (including abstract, introduction, methods and materials, results, discussion, and literature cited in each chapter). In addition, the final one to two chapters of the dissertation should include an integrative discussion concerning the total research project and evaluation of hypotheses that were tested.

Completion of the Ph.D. degree requires a written dissertation that is presented orally in front of a public forum and defended in private to the student's dissertation committee. Dissertation research must be original and make a contribution to the scientific literature. To pass, the student must receive the approval of 4 of the 5 members on the dissertation committee.

Student Evaluations

Students are formerly evaluated annually by the dissertation committee and the program faculty with respect to courses, research, teaching, professional development, and progress through the program. The student also annually completes an Individual Development Plan that is reviewed by the student's advisor, dissertation committee, program director, and program faculty.

Biochemistry and Molecular Biology

fbhillgartner@hsc.wvu.edu (lsalati@hsc.wvu.edu)

Degrees Offered

- Doctor of Philosophy
- Joint Doctor of Medicine and Doctor of Philosophy

The disciplines of biochemistry and molecular biology seek to understand biology by exploring the functions of the molecular components of cells. A major goal of this program is to foster ability for independent thought. To this end, our faculty cultivates an open, collegial relationship with one another and with our students. Close collaboration between scientists, the sharing of ideas, and open inquiry are critical components of our training plan. Our goal is to develop independence as a scientist.

The hallmarks of graduate training in biochemistry and molecular biology are the emphasis placed on the use of the scientific literature in advanced coursework and on protecting time for laboratory research. In addition, students will have time for professional development through seminar presentation, attendance at national meetings, teaching opportunities, and seminar programs both within the department and throughout the Health Sciences Center.

The doctoral program in **Biochemistry and Molecular Biology** focuses on the understanding of biology by exploring the functions of the molecular components of cells. The goal of the program is to foster the student's ability for independent thought, in preparation for a career as an independent scientist. During the second year, specialized courses in biochemistry are offered as students continue their research projects. During subsequent years, students emphasize independent dissertation research, and a few formal courses may be taken. Completion of the Ph.D. degree is realized when the student successfully presents the research results to faculty of the graduate dissertation committee and program/department. Typically, four to five years are required to realize this goal.

Faculty research in the program can provide the student with training in multiple basic sciences areas:

- Regulation of gene expression
- Chromatin silencing
- RNA processing
- Cell survival mechanisms
- Intermediary metabolism
- Regulation of signal transduction by nutrients and metabolites
- Nutritional biochemistry
- Cell proliferation and cell cycle regulation
- Cell adhesion
- Ion channel biochemistry
- Kinases and phosphatases in signal transduction mechanisms involved in cancer cell metabolism
- Spirochete biology
- Oxidant-induced cellular stress
- Structure/function relationships of proteins
- Molecular genetics of visual and auditory development
- G protein-mediated signaling in retina photoreceptors
- Molecular basis of age-related blindness

These research areas provide fundamental knowledge toward both the normal health-state and the amelioration of multiple diseases: atherosclerosis, blindness, cancer, deafness, diabetes, and metabolic disorders.

FACULTY

GRADUATE PROGRAM DIRECTOR

- Brad Hillgartner, Professor - Ph.D. (Michigan State University)

PROFESSORS

- Steven Frisch - Ph.D. (University of California-Berkeley
- Qiang Ma - Ph.D. (Rutgers University)
- Vazhaikkurichi Rajendran - Ph.D. (University of Madras)
- Mike Ruppert - Ph.D. (Johns Hopkins University)
- Lisa Salati - Ph.D. (University of Minnesota)
- Michael Schaller - Ph.D. (McMaster University)
- George Spirou - Ph.D. (University of Florida)

ASSOCIATE PROFESSORS

- Yehenew Agazie - Ph.D. (University of Saskatchewan)
- Michael Gunther - Ph.D. (Colorado State University)
- Pete Mathers - Ph.D. (California Institute of Technology)
- Visvanathan Ramamurthy - Ph.D. (Weslyan University)
- Andrew Shiemke - Ph.D. (Oregon Graduate Institute)
- Maxim Sokolov - Ph.D. (Weizmann Institute of Science)

ASSISTANT PROFESSORS

- Roberta Leonardi - Ph.D. (University of Southampton)
- Elena Pugacheva - Ph.D. (Russian Academy of Science)
- David Smith - Ph.D. (University of South Florida)
- Peter Stoilov - Ph.D. (Friedrich Alexander University)
- Eric Tucker - Ph.D. (University of Arizona)

RESEARCH ASSISTANT PROFESSOR

- Alexey Ivanov - Ph.D. (Russian Academy of Sciences)

Doctor of Philosophy

MAJOR REQUIREMENTS

BMS 700	Scientific Integrity	1
BMS 706	Cellular Methods	1
BMS 715	Molecular Genetics	3
BMS 720	Scientific Writing	2
Molecular Bio Journal Club		7
BIOC 785	Biochemistry and Molecular Biology Journal Club	
BMS 791A	ADTP:Short Lab Experience	
BMS 793A	SPTP:Fndtn-Cntmp Biomd Rsrch 1	
BMS 793B	SPTP:Fndtn-Cntmp Biomd Rsrch 2	
Graduate Seminar		3
BIOC 796	Graduate Seminar	
Research		54
BIOC 797	Research	
Adv Graduate Course- select one of the following:		4
BIOC 750	Protein Chemistry/Enzymology	
BIOC 751	Advanced Molecular Biology	
CCB 701	Biochemical and Oncogenic Signaling	
Adv Graduate Course- select one of the following:		3-5
CCB 701	Biochemical and Oncogenic Signaling	
BIOC 750	Protein Chemistry/Enzymology	
PSIO 750	Graduate Physiology	
BIOC 751	Advanced Molecular Biology	
BIOC 791	Advanced Topics	
NBAN 791	Advanced Topics	
MICB 784B	Special Problems in Microbiology	
Qualifying Exam		
Dissertation Proposal		
Dissertation Defense		
Total Hours		**78-80**

Seminars and Research Forum

Students will present three seminars during their graduate study. The first seminar is on a topic outside of the student's research area. The second seminar is the public presentation of the dissertation proposal, which is the background and proposed research for the dissertation project. The third seminar is the public presentation of the dissertation defense.

Journal Club

Students are required to enroll in Journal Club each semester. The course involves the presentation and discussion of current research papers and will help acquaint students with the variety of methods used in scientific research.

Doctoral Research

Students will conduct research with a dissertation mentor during time in the program. Students register for research credits each semester, and their performance is graded by their dissertation mentor.

Qualifying and Dissertation Proposal/Ph.D. Candidacy

The written qualifying exam is given at the end of the second year of study. The dissertation proposal is completed in the third year of study. Admission to Ph.D. candidacy occurs following the successful defense of the dissertation proposal.

Dissertation Defense and First-Author Paper Requirement

Students are allowed to defend their dissertation when a minimum of one manuscript with the student as first author, based on dissertation research, is accepted in a peer-reviewed journal. The final examination for the Ph.D. degree consists of orally defending a written dissertation in a public seminar and then in private to the dissertation committee. Satisfactory performance in the oral defense will result in recommendation for granting of the PhD.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700	1	BMS 715	3	BIOC 797	3
BMS 706	1	BIOC 785	1		
BMS 791A		BIOC 797	5		
BMS 793A					
BMS 793B					
	2		**9**		**3**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
BIOC 785	1	BIOC 751 or 750	4	BMS 720	2
CCB 701	3	BIOC 785	1	BIOC 797	1
BIOC 797	5	BIOC 797	5		
		Qualifying Examination			
	9		**10**		**3**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
BIOC 785	1	BIOC 785	1	BIOC 797	3
BIOC 797	8	BIOC 796	1		
		BIOC 797	7		
		Dissertation Propsal			
	9		**9**		**3**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
BIOC 785	1	BIOC 785	1	BIOC 797	3
BIOC 796	1	BIOC 796	1		
BIOC 797	7	BIOC 797	7		
	9		**9**		**3**

Total credit hours: 78

NOTE: The graduate curriculum is finalized with a plan of study once the mentor and laboratory have been selected in the first year. The plan of study is developed by the graduate committee in consultation with the student. The courses listed above include the required and elective coursework necessary for the student to finalize his/her plan of study. When the student enters the laboratory of his/her doctoral dissertation mentor repetitive enrollments in research, seminars, and colloquia are typical and will determine total hours necessary for degree completion.

Biomedical Sciences

Degrees Offered

- Master of Science
- Doctor of Philosophy

The Masters of Science (M.S.) in the **Biomedical Sciences** is designed to assist in the selection of a career path, albeit industry, teaching, or a professional program, and/or for the transition to a biomedical Ph.D. program. The degree has a thesis and non-thesis option, the latter with additional elective coursework that should align with career goals. Completion of the M.S. degree is realized when the student successfully presents the research results to faculty of the student's graduate thesis committee. Typically, two to three years are required to realize this goal.

As an incoming student, you will:

- start your graduate studies with an orientation that will prepare you to successfully transition into graduate studies, and allow you to interact with an orientation advisor, faculty investigators, and resident students at social events while enjoying the outdoors;

- have the opportunity to match with a faculty mentor upon matriculation or conduct at least one rotation before matching with a mentor;
- take a course in scientific writing during the summer of Year 2.
- have the opportunity to participate in seminar series, workshops, and field experiences focused on non-academic careers. The Beyond the Laboratory (http://www.hsc.wvu.edu/ResOff/PhDPrograms/Biomedical-Sciences/pages/Home/BEST) program takes advantage of many existing programs at WVU and has designed new field experiences with industries and WVU centers.

Why WVU?

- The West Virginia Clinical and Translational Science Institute received a substantial clinical and translational grant from NIH that totals $53 M, including matching funds, over the next five years. (http://www.wvctsi.org/Pages)
- Our research laboratories are populated primarily by graduate students allowing for personal, one-on-one training.
- Morgantown is considered one of the best small cities in America.

FACULTY
ASSISTANT VP FOR GRADUATE EDUCATION
- Fred L. Minnear - Ph.D. (Oregon Health Sciences University)
  M.D./Ph.D. Scholars Program
CHAIR
- Scott Weed - Ph.D. (Yale University)
ASSISTANT DIRECTOR FOR GRADUATE STUDIES
- To Be Named
STAFF ASSISTANT
- Penny Phillips
  M.D./Ph.D. Scholars Program

All applications are accepted electronically and must be submitted electronically via the official WVU Graduate Education application: https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantConnectLogin.asp?id=wvugrad.

M.S. applications are reviewed from November through March by a Common Admissions Committee comprised of the graduate directors or faculty representatives of our seven Ph.D. graduate training programs and a senior graduate student representing the Graduate Student Organization. The Assistant VP for Graduate Education and the Assistant Director of HSC Graduate Education are *ex officio* members.

Qualified M.S. applicants are invited, along with Ph.D. applicants, to an all-expense paid, 2.5 day visit/interview to the campus. Students with excellent credentials and who can clearly describe their past research and demonstrate passion for research at the interview are seriously considered for acceptance. Decisions of acceptance are made on a rolling basis, and all decisions made by the Admissions Committee are final. For maximum admissions consideration, we recommend that you apply as early as possible.

Please visit http://www.hsc.wvu.edu/ResOff/Pages/M-S-in-the-Biomedical-Sciences/Prospective-Students to review the application process.

Master of Science
MAJOR REQUIREMENTS

BMS 700	Scientific Integrity	1
BMS 706	Cellular Methods	1
BMS 715	Molecular Genetics	3
BMS 720	Scientific Writing	2
Program- specific elective		3
Journal Clubs		3
BMS 791A	ADTP:Short Lab Experience	2
BMS 793A	SPTP:Fndtn-Cntmp Biomd Rsrch 2	4
BMS 793B	SPTP: Fndtn-Cntmp Biomd Rsrch 2	4
Select either the thesis or non-thesis option:		18
Thesis Option		
Elective (3 hours)		
Research (15 hours)		
BMS 797	Research	

Thesis Proposal		
Thesis Defense		
Non-Thesis Option		
Electives (12 hours)		
Research (6 hours)		
BMS 797	Research	
Total Hours		**41**

Seminars and Research Forum

It is recommended that students attend a weekly seminar in their chosen research area during each semester enrolled in the program.

Journal Club

Students are required to enroll in three Journal Clubs during their M.S. studies. The course involves the presentation and discussion of current research papers and will help acquaint students with the variety of methods used in scientific research.

Masters Research

Students will conduct research with a thesis mentor during time in the program. Students register for research credits each semester, and their performance is graded by their thesis mentor.

Thesis Proposal

The thesis proposal is completed in the beginning of the second year of study.

Thesis Defense

The final examination for the M.S. degree consists of orally defending a written thesis in private to the thesis committee – a prior public presentation is encouraged. Satisfactory performance in the oral defense will result in recommendation for granting of the M.S. degree.

Suggested Plan of Study
THESIS OPTION

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700	1	BMS 715	3	BMS 797	3
BMS 706	1	Program Specific Elective	3		
BMS 791A	2	Journal Club	1		
BMS 793A	4	BMS 797	1		
BMS 793B	4				
	12		**8**		**3**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
Elective	3	Journal Club	1	BMS 720	2
Journal Club	1	BMS 797	6	BMS 797	1
BMS 797	4				
Thesis proposal					
	8		**7**		**3**

Total credit hours: 41

NON THESIS OPTION

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700	1	BMS 715	3	BMS 797	3
BMS 706	1	Program-specific elective	3		

BMS 791A	4 Elective	3
BMS 793A	4 Journal Club	1
BMS 793B	2	
12	**10**	**3**

Second Year

Fall	Hours Spring	Hours Summer	Hours
Elective	3 Elective	3 BMS 720	2
Elective	3 Journal Club	1 BMS 797	1
Journal Club	1 BMS 797	1	
BMS 797	1		
8	**5**		**3**

Total credit hours: 41

NOTE: The graduate curriculum is finalized with a plan of study once the mentor and laboratory have been selected in the first year. The plan of study is developed by the graduate committee in consultation with the student. The courses listed above include the required and elective coursework necessary for the student to finalize his/her plan of study.

Cancer Cell Biology

sweed@hsc.wvu.edu

Degrees Offered

- Doctor of Philosophy
- Joint Doctor of Medicine and Doctor of Philosophy

Students in the doctoral program in **Cancer Cell Biology** receive comprehensive in-depth training in modern areas of cancer biology, with a strong emphasis on cellular and molecular aspects of cancer origin, progression and treatment and a focus on cancer types and issues relevant to international, national and West Virginia populations. The program is designed to produce scholarly researchers with aptitude in public speaking, community service, clinical engagement, and critical thinking. Completion of the Ph.D. degree is realized when the student successfully presents the research results to faculty of the graduate dissertation committee and program. Typically, four to five years are required to realize this goal.

Research interests include biochemical, molecular, and cellular basis of cancer origin and progression. Current research areas include the following:

- *Tumor Microenvironment*: Tumor cell resistance to anoikis, effects of chemotherapy on the bone marrow microenvironment, stem cell regulation, leukemia/stromal interactions, effects of the extracellular matrix on angiogenesis and tumor cell invasion.
- *Mechanisms of Metastasis*: Role of proteases in cell motility, regulation of the actin cytoskeleton in invadopodia formation and migration, signaling pathways in invasion and metastasis, imaging of metastasis in animal models.
- *Genetic Regulation of Cancer*: Tumor suppressor genes and transcriptional regulation, post-translational modifications in transcriptional regulation.
- *Heavy Metals and Cancer*: Effects of heavy metals on signal transduction pathways governing angiogenesis and tumor cell motility.
- *Signal Transduction in Cancer*: Receptor tyrosine kinase signaling in cancer growth and metastasis, non-receptor tyrosine kinases in cell adhesion and proliferation, ROS in tumor progression, lipid kinase signaling in angiogenesis.
- *Cancer Bioinformatics*: Biomarker classification in cancer, predictive models of carcinogenesis.

Cancer cell biology investigators working in these research areas routinely incorporate biochemical, molecular, cellular, animal, and computational-based techniques that are currently utilized at the forefront of leading basic cancer research laboratories around the world. The main tumor types that are the current focus of cancer cell biology investigators are based on cancers with disproportionate incidences in West Virginia, including breast, leukemia, ovarian, cervical, lung, and head and neck cancers.

The doctor of philosophy program in cancer cell biology is designed to expose Ph.D. and M.D./Ph.D. level graduate students to a wide spectrum of opportunities available in basic and translational cancer research. In addition to mechanistic and therapeutic approaches to studying problems in cancer at the bench, students have the opportunity for exposure to more clinical elements of cancer practice, including participation in tumor boards, shadowing clinicians, and participation in the design and approval of clinical trials. The cancer cell biology program at WVU is a member of the Cancer Biology Training Consortium (CABTRAC), a national organization of similar cancer-specific Ph.D. programs that interact through annual regional and national meetings to improve and refine Ph.D. cancer training. Graduates of the cancer cell biology program are therefore well-equipped to enter into a number of different career paths. These include postdoctoral research, biotechnology, industry, government, science writing, core facilities management, and legal counsel as examples.

FACULTY

GRADUATE PROGRAM DIRECTOR

- Dr. Scott Weed - Ph.D. (Yale University)

Doctor of Philosophy

MAJOR REQUIREMENTS

Cancer Cell Biology Major Requirements

BMS 700	Scientific Integrity	1
CCB 700	Selected Topics in Cancer Cell Biology	3
CCB 701	Biochemical and Oncogenic Signaling	3
CCB 702	Cancer Pharmacologic and Therapeutics	3
Journal Club		7
CCB 705	Journal Club	
BMS 706	Cellular Methods	1
BMS 715	Molecular Genetics	3
BMS 720	Scientific Writing	2
BMS 730	Cancer Cell Biology	3
BMS 791A	ADTP:Short Lab Experience	2
BMS 793A	SPTP:Fndtn-Cntmp Biomd Rsrch 1	4
BMS 793B	SPTP:Fndtn-Cntmp Biomd Rsrch 2	4
Graduate Seminar		7
CCB 796	Graduate Seminar	
Research		44
CCB 797	Research	
Qualifying Exam		
Dissertation Proposal		
Dissertation Defense		
Total Hours		**87**

Seminars and Research Forum

Students attend seminar each semester. These seminars are either given by invited faculty or students.

Journal Club

Students are required to enroll in Journal Club each semester. The course involves the presentation and discussion of current research papers and will help acquaint students with the variety of methods used in scientific research.

Doctoral Research

Students will conduct research with a dissertation mentor during time in the program. Students register for research credits each semester, and their performance is graded by their dissertation mentor.

Qualifying and Dissertation Proposal/Ph.D. Candidacy

The written qualifying exam is given at the end of the first year of study. The dissertation proposal is completed in the third year of study. Admission to Ph.D. candidacy occurs following the successful defense of the dissertation proposal.

Dissertation Defense and First-Author Paper Requirement

Students are allowed to defend their dissertation when a minimum of one manuscript with the student as first author, based on dissertation research, is accepted in a peer-reviewed journal. The final examination for the Ph.D. degree consists of orally defending a written dissertation in a public seminar and then in private to the dissertation committee. Satisfactory performance in the oral defense will result in recommendation for granting of the Ph.D. degree.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700	1	BMS 715	3	CCB 797	3
BMS 706	1	BMS 730	3	Qualifying Examination	
BMS 791A	2	CCB 705	1		
BMS 793A	4	CCB 796	1		
BMS 793B	4	CCB 797	1		
	12		**9**		**3**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
CCB 700	3	CCB 702	3	BMS 720	2
CCB 701	3	CCB 705	1	CCB 797	1
CCB 705	1	CCB 796	1		
CCB 796	1	CCB 797	4		
CCB 797	1				
	9		**9**		**3**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
CCB 705	1	CCB 705	1	CCB 797	3
CCB 796	1	CCB 796	1		
CCB 797	7	CCB 797	7		
	9		**9**		**3**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
CCB 705	1	CCB 705	1	CCB 797	3
CCB 796	1	CCB 796	1		
CCB 797	7	CCB 797	7		
	9		**9**		**3**

Total credit hours: 87

NOTE: The graduate curriculum is finalized with a plan of study once the mentor and laboratory have been selected in the first year. The plan of study is developed by the graduate committee in consultation with the student. The courses listed above include the required and elective coursework necessary for the student to finalize his/her plan of study. When the student enters the laboratory of his/her doctoral dissertation mentor repetitive enrollments in research, seminars, and colloquia are typical and will determine total hours necessary for degree completion.

Cellular and Integrative Physiology

rbrock@hsc.wvu.edu

Degrees Offered

- Master of Science
- Doctor of Philosophy
- Joint Doctor of Medicine and Doctor of Philosophy

Physiology is a dynamic life science that focuses on the study of biological systems at many levels of complexity, ranging from genes and molecules to cells and organisms. Thus, training in physiology has the ultimate goal of linking molecular and cellular information to functional outcomes. Currently, groundbreaking research and discovery in the life sciences are more interdisciplinary than ever, and students studying within the realm of physiology can expect to work with a wide range of scientists.

The goal of the doctoral program in **Cellular and Integrative Physiology** is to engage students in creating a new approach to the life sciences, with the aim of explaining how the higher-level properties of complex systems appear from the interactions amongst their parts. Our program provides a multidisciplinary approach to modern life sciences, drawing on faculty expertise from several departments and centers in the Schools of Medicine and Pharmacy.

Completion of the Ph.D. degree is realized when the student successfully presents the research results to faculty of the graduate dissertation committee and the program/department. Typically, four to five years are required to realize this goal.

The program's participating research faculty consists of scientists from the Center for Cardiovascular and Respiratory Sciences, NIOSH/CDC, Center for Neuroscience, and the Blanchette Rockefeller Neurosciences Institute. As a result, this multidimensional program includes activities in the following:

- Integrative and systems physiology
- Pathophysiology
- Pharmacology
- Translational research
- Small animal physiology, biomedical engineering
- Biophysics

It also integrates information from genetics, functional genomics, and proteomics into whole animal and human physiology.

This interactive and cross-disciplinary environment, together with an atmosphere filled with enthusiasm and passion for scientific discovery, makes our program a uniquely exciting place for doing research and the training of students. Specific topics of research emphasis include the following:

- Hemodynamics and Cardiovascular Control in Health and Disease
- Microcirculation and Cellular Biophysics
- Respiratory Function and Control in Health and Disease
- Neuroendocrine Control of Reproduction
- Neural Control of Sensory Physiology

Students will leave our program better able to identify important unsolved scientific problems and with an appreciation of how to select problems for which quantitative and theoretical approaches will be most productive.

FACULTY

GRADUATE PROGRAM DIRECTOR

- Dr. Robert W. Brock - Ph.D. (University of Western Ontario)

Doctor of Philosophy

MAJOR REQUIREMENTS

BMS 700	Scientific Integrity	1
BMS 706	Cellular Methods	1
BMS 720	Scientific Writing	2
Graduate Seminar		4
PSIO 744	Graduate Seminar	
PSIO 750	Graduate Physiology and Pharmacology I	4
BMS 791A	Advanced Topics	2
BMS 793A	Special Topics	4
BMS 793B	Special Topics	4
Research		44
PSIO 797	Research	
Graduate Colloquium		8
PSIO 799	Graduate Colloquium	
Electives:		15
BMS 715	Molecular Genetics	
BMS 730	Cancer Cell Biology	
BMS 738	Muscle Structure and Function	
PSIO 746	Neurophysiology	
PHAR 779	Drugs: Bench to Market	
MICB 784B	Special Problems in Microbiology	
MICB 784C	Special Problems in Microbiology	
PSIO 790	Teaching Practicum	

PSIO 791	ADTP:Physiology Issues
PSIO 792	Directed Study
PSIO 793	Special Topics
PSIO 795	Independent Study
Qualifying Exam	
Dissertation Proposal	
Dissertation Defense	
Total Hours	**89**

Seminars and Research Forum

Students register for one credit of seminar each academic year while in residence.

Journal Club

Students are required to enroll in Journal Club each semester. The course involves the presentation and discussion of current research papers and will help acquaint students with the variety of methods used in scientific research.

Doctoral Research

Students will conduct research with a dissertation mentor during time in the program. Students register for research credits each semester, and their performance is graded by their dissertation mentor.

Qualifying and Dissertation Proposal/Ph.D. Candidacy

The oral qualifying exam is given at the end of the second year of study. The dissertation proposal is completed in the third year of study. Admission to Ph.D. candidacy occurs following the successful defense of the dissertation proposal.

Dissertation Defense and First-Author Paper Requirement

Students are allowed to defend their dissertation when a minimum of one manuscript with student as the first author, based on dissertation research, is accepted in a peer-reviewed journal. The final examination for the Ph.D. degree consists of orally defending a written dissertation in a public seminar and then in private to the dissertation committee. An external examiner, a distinguished scientist external to WVU, is required to participate at the dissertation defense. Satisfactory performance in the oral defense will result in recommendation for granting of the Ph.D. degree.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700	1	Electives	6	PSIO 797	3
BMS 706	1	PSIO 797	2		
BMS 791A::ADTP:Short Lab Experience	2	PSIO 799	1		
BMS 793A::SPTP:Fndtn-Cntmp Biomd Rsrch 1	4				
BMS 793B::SPTP:Fndtn-Cntmp Biomd Rsrch 2	4				
PSIO 799	1				
PSIO 744	1				
	14		**9**		**3**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
PSIO 750	4	Electives	6	BMS 720	2
PSIO 797	4	PSIO 744	1	PSIO 797	1
PSIO 799	1	PSIO 797	1		
		PSIO 799	1		
	9		**9**		**3**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
Elective (as needed)	3	PSIO 797	8	PSIO 797	3
PSIO 744	1	PSIO 799	1		
PSIO 797	4				
PSIO 799	1				
	9		**9**		**3**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
PSIO 744	1	PSIO 797	8	PSIO 797	3
PSIO 797	7	PSIO 799	1		
PSIO 799	1				
	9		**9**		**3**

Total credit hours: 89

NOTE: The graduate curriculum is finalized with a plan of study once the mentor and laboratory have been selected in the first year. The plan of study is developed by the graduate committee in consultation with the student. The courses listed above include the required and elective coursework necessary for the student to finalize his/her plan of study. When the student enters the laboratory of his/her doctoral dissertation mentor repetitive enrollments in research, seminars, and colloquia are typical and will determine total hours necessary for degree completion.

Clinical and Translational Science

Overview

Clinical and Translational Science is a high priority for the National Institute of Health, otherwise known as NIH. Clinical research encompasses the following research areas: 1) Research with human subjects that attempts to determine disease mechanisms, therapies, clinical trials and new techniques; 2) Epidemiology & Behavioral research and 3) Outcomes research. Translational research, sometimes referred to as "bench to bedside to community" is a concept beginning in the laboratory developing and testing interventions impacting human health, taking that information into trial studies on human subjects and finally, determining best practices for community health. West Virginia University has a Clinical and Translational Science Institute (WC-CTSI) which is funded in part from the NIH Institutional Development Award Program for Clinical & Translational Research (IDeA-CTR). The CTSI, in partnership with other institutions, has a mission to focus on research that will address the health issues of individuals and communities specifically as they affect West Virginia and the Appalachian region. The mission of this institute is in alignment with the land grant mission of West Virginia University (WVU) and the strategic plan of the WVU Health Sciences Center.   An overview of recent projects undertaken by the WV-CTSI is available at the following web site: http://www.wvctsi.org/Pages/.

As part of the WV-CTSI, educational programs at the graduate level prepare trainees to participate in clinical and translational research. WVU offers a **Doctor of Philosophy (Ph.D.), Masters of Science (M.S.), and Certificate in Clinical and Translational Science** which is designed to develop the next generation of clinical and translational scientists through education and mentored research training.

The goal of the **Ph.D. program** is to develop biomedical researchers who can integrate findings, information, and observations across basic, population, and clinical sciences, to accelerate and transform how we improve the health of individuals and populations. By the completion of this degree, students will be able to:

1. Design, implement, conduct, analyze and interpret research projects using the techniques unique to basic science, clinical research, and population science research
2. Demonstrate mastery of research in a focused area as evidenced by academic and scientific presentations and publications
3. Read, understand and critique the scientific literature of the basic, clinical, and population sciences
4. Work effectively with and create collaborative, productive research partnerships with clinicians, population scientists, and basic / laboratory scientists
5. Be able to communicate with and understand the research challenges and perspectives of each of the three branches of clinical and translational science (basic, clinical, and population sciences)
6. Work with communities to translate scientific findings into programs and policies that improve the health of individuals and populations.

The Ph.D. program is suitable for students with:

- An undergraduate degree
- Already completed graduate work (at the master or doctoral level)
- Medical students in the MD/PhD program
- Practicing clinicians
- Other biomedical professionals seeking expertise in and preparation for careers in clinical and translational research.

Information on the **Ph.D. degree** may be found at the program web http://www.wvctsi.org/pages/Programs/Clinical-Research-Education-Mentoring-Career-Devel/Ph-D-In-Clinical-and-Translational-Science.

Typically, **M.S. trainees** have an undergraduate degree in a health care discipline, or a field of study complementary to research in health. The master's degree may also be considered as part of a dual degree program, such as MD/MS. The M.S. degree expands upon Certificate coursework in biostatistics and epidemiology to provide mentored, research training with required and elective courses, the latter to complement research needs and interests. The degree emphasizes a research project(s) that can be clinical (study of medications, devices, diagnostic products and treatments; may include clinical trials) and/or translational research (defined as research with human subjects or with populations or with direct application to human health). Completion of the M.S. degree requires a written grant proposal or thesis defended orally to three graduate faculty members. The degree can be completed in three semesters, although typically clinical trainees are part-time and complete the program in two to three years.   Information on the **M.S. degree** may be found at the program web site: http://www.wvctsi.org/pages/Programs/Clinical-Research-Education-Mentoring-Career-Devel/M-S-in-Clinical-Translational-Science.

Information on the 15-credit **graduate Certificate in Clinical & Translational Science** is available at http://www.wvctsi.org/pages/Programs/Clinical-Research-Education-Mentoring-Career-Devel/Certificate-in-Clinical-Translational-Science.

Mentored research opportunities exist with faculty in the Health Sciences schools of Dentistry, Medicine, Nursing, Pharmacy, and Public Health. The WVCTSI facilitates the recruitment and support of physician-scientists, who may serve as faculty mentors to students.

FACULTY
MASTERS AND CERTIFICATE GRADUATE PROGRAM DIRECTOR

- Thomas C. Hulsey - Sc.D.
  The Johns Hopkins University

PH.D. GRADUATE PROGRAM DIRECTOR

- Jefferson C. Frisbee - Ph.D.
  University of Guelph

Application and Admission

For the Ph.D. in Clinical and Translational Science, the minimum requirements for admission consideration are as follows:

- Completed undergraduate degree with a cumulative GPA of 3.0 or higher
- GRE score of 300 (total; minimum of 150 verbal and 150 quantitative) or MCAT of 28 (total). In the instances where the applicant is a clinician, successful completion of the USMLE Step 1 and Step 2 board exams may be accepted *in lieu* of the GRE or MCAT scores.
- TOEFL score where applicable (minimum score requirement depends upon the test taken; standards established by the WVU Office of Admissions, International Graduate Students)
- Significant undergraduate coursework in the physical or biological sciences is strongly recommended (1 year of biology, 1 year of math, 1 year of chemistry, and 1 year of social sciences) as is research experience

Students must submit an application that includes:

- A personal statement that addresses their desire to complete a doctoral program in clinical and translational science, a career in biomedical research, and how their background, including their research experiences, have prepared them for this doctoral program
- A résumé or CV that indicates relevant experience and the years and location (institution) of completion of undergraduate degrees and any graduate or professional coursework or degrees
- Three letters of recommendation from professional and / or academic referees, in which the referees clarify how long and in what capacity they have known the applicant and their assessment of the student's likelihood of success in doctoral-level work.

Applications to this program will be reviewed by a program-specific admissions committee comprised of representatives from the WVU HSC Interdisciplinary Research Centers (Center for Cancer Cell Biology, Center for Cardiovascular and Respiratory Sciences, Center for Neuroscience, and the WV Stroke Center), the WV-CTSI, and the WVU HSC Office of Research and Graduate Education. A senior student in the program will be a representative on the committee.

It is anticipated that admission to this program will be competitive; meeting the minimum admission requirements will not assure acceptance to this program.

Priority for the master's (M.S.) degree and Certificate program in Clinical and Translational 'Science is given to faculty, clinicians, and health professional students at the WVU Health Sciences Center. The application requires a personal statement outlining past accomplishments (with an emphasis on research, future research interests, and a clear career vision of how becoming a clinical/translational researcher is part of a long-term career plan), three letters of recommendation that evaluate potential as a clinician scientist, a list of potential research mentors, and a Curriculum Vitae. For faculty applicants, a support letter from the Department Chairperson is required stating how research activities integrate with other responsibilities. For clinicians, support letters from the department Chair and fellowship or residency director (if applicable) are required. Student applicants must be in

good academic and professional standing. Any other interested applicants should follow the WVU requirements for application to graduate programs as described below.

Prospective graduate trainees interested in one of the above programs are urged to initiate application for admission as early as possible. The first step of a student interested in a degree program should be to ask for information from the department, division, school, or college offering the program desired; the reply to such an inquiry will include instructions for applying to the particular program.

Application for admission to graduate study must be made online or on standard forms provided online at http://grad.wvu.edu/admissions. If using a paper application, the completed form may be returned to the Office of Admissions, PO Box 6009, West Virginia University, Morgantown, WV 26506, and must be accompanied by payment of a nonrefundable special service fee of $60. Applicants who have attended another institution, other than WVU, must request that the registrar or records office of the college(s) attended send an official transcript directly to the Office of Admissions. No one is admitted to graduate study that does not hold a baccalaureate degree from an accredited college or university.

If the applicant meets the minimum admission requirements of WVU, a copy of the application is forwarded to the faculty of the program of interest. Any graduate degree program is permitted to set admission requirements which go beyond the minimum admission standards of the University. No one can pursue an advanced degree at WVU unless admitted to the appropriate degree program.

Master of Science
MAJOR REQUIREMENTS

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
EPID 601	Public Health Epidemiology	3
EPID 625	Principles of Clinical Trials	3
BMS 700	Scientific Integrity	1
SBHS 711	Research Translation for Health	3
BMS 720	Scientific Writing	2
PHAR 791N	ADTP:Ethics-Clinical Research	2
Research		9
BMS 797	Research	
Electives		6
Independent Study		1
Grant Proposal Defense or Thesis Defense		
Total Hours		**34**

Grant Proposal Defense or Thesis Defense

The degree culminates with a written grant proposal or thesis defended orally to three graduate faculty members. Satisfactory performance in the oral defense will result in recommendation for granting of the M.S. degree.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BIOS 601	3	EPID 601	3	BMS 720	2
BIOS 602	1	EPID 625	3	Independent Study	1
BMS 700	1	Elective	3	BMS 797	6
SBHS 711	3	Elective	3		
PHAR 791N	2	BMS 797	1		
BMS 797	2				
	12		**13**		**9**

Total credit hours: 34

NOTE: The graduate curriculum is finalized with a plan of study once the mentor and laboratory have been selected in the first year. The plan of study is developed by the graduate committee in consultation with the student. The courses listed above include the required and elective coursework necessary for the student to finalize his/her plan of study.

Doctor of Philosophy
MAJOR REQUIREMENTS

Core Courses

BMS 700	Scientific Integrity	1
BMS 720	Scientific Writing	2
BMS 793	Theory, Foundations, and Application of Clinical and Translational Science	2
PSIO 750	Graduate Physiology and Pharmacology 1	4
BIOC 531	General Biochemistry	4
BIOS 601	Applied Biostatistics 1	3
EPID 611	Concepts and Methods of Epidemiology	3
PHAR 757	Patient Reported Outcomes	3
PUBH 662	Clinical Research Methods and Practices	3
PHAR 758	Ethical and Regulatory Aspects of Clinical Research	1
Specialization Courses		
Complete additional courses from at least 2 of three branches of clinical and translational science [*]		15
Research Experiences		
Complete at least 4 credit hours of research experiences in each of the T1, T2, and T3 research areas. [*]		12
Journal Club		
Complete 1 credit hour of Journal Club in each of 8 semesters.		8
Examinations		
Candidacy Examination		
Comprehensive Examination		
Dissertation Research		
Complete 6 full-time semesters of dissertation research.		38
Peer-Reviewed Publication		
Total Hours		**99**

Program Description

For matriculating students who have successfully completed graduate-level coursework at the master, doctoral, or professional (clinical) level: these students will be evaluated on a case-by-case basis and some of the Core Courses, and / or Specializations Courses may be waived with demonstrable evidence that students have successfully completed equivalent coursework and that waiving that curriculum component will not jeopardize the student's ability to successfully complete the remainder of the program (comprehensive and candidacy examinations, dissertation).

Coursework is organized around the three main branches of clinical and translational science: Basic/Laboratory Science, Population Science, and Clinical Science. Research experiences are organized around the three translational (T) research domains:

- **T1 research** expedites the movement between basic research and patient-oriented research that leads to new or improved scientific understanding or standards of care
- **T2 research** facilitates the movement between patient-oriented research and population-based research that leads to better patient outcomes, the implementation of best practices, and improved health status in communities
- **T3 research** promotes interaction between laboratory-based research and population-based research to stimulate a robust scientific understanding of human health and disease

Journal Club

Students are required to enroll in Journal Club each semester. The course involves the presentation and discussion of current research papers and will help acquaint students with the variety of methods used in scientific research.

Doctoral Research

Students will conduct research with a dissertation mentor during time in the program. Students register for research credits each semester, and their performance is graded by their dissertation mentor.

Qualifying and Dissertation Proposal/Ph.D. Candidacy

The written qualifying exam is given typically at the end of the second year of study. The dissertation proposal is completed in the third year of study. Admission to Ph.D. candidacy occurs following the successful defense of the dissertation proposal.

Dissertation Defense and First-Author Paper Requirement

Students are allowed to defend their dissertation when a minimum of one manuscript with the student as first author, based on dissertation research, is accepted in a peer-reviewed journal. The final examination for the Ph.D. degree consists of orally defending a written dissertation in a public seminar and then in private to the dissertation committee. Satisfactory performance in the oral defense will result in recommendation for granting of the PhD.

Peer-Reviewed Publication

Consistent with existing standards at the Health Sciences Center, all students in this program must have one first-authored, peer-reviewed, original research publication relevant to their dissertation research accepted for publication ("in press") before they may defend their dissertation. This manuscript must represent original research; a review article, even a systematic review, will not fulfill this requirement.

Exercise Physiology

DEGREES OFFERED

- Master of Science
- Doctor of Philosophy
- Joint Doctor of Medicine and Doctor of Philosophy

John M. Hollander, Ph.D., Associate Professor and Director of Doctoral Graduate Studies, jhollander@hsc.wvu.edu; (johollander@hsc.wvu.edu) http://www.hsc.wvu.edu/ResOff/PhDPrograms/Biomedical-Sciences/pages/Graduate-Programs/Exercise-Physiology; http://medicine.hsc.wvu.edu/ep/Education/Program-Curriculum

Stephen E. Alway, Ph.D., Professor and Chair and Director of Graduate Studies Master's Program, salway@hsc.wvu.edu; (salway@hsc.wvu.edu) http://medicine.hsc.wvu.edu/ep/Education/Master-of-Science

Randall W. Bryner, Ed.D, Associate Professor, Vice Chair, and Director of UndergraduateEducation, rbryner@hsc.wvu.edu; (rbryner@hsc.wvu.edu) http://medicine.hsc.wvu.edu/ep/Education/Bachelor-of-Science

INTRODUCTION

The WVU Exercise Physiology Program was established in the Health Sciences Center's School of Medicine in July 1993. The program offers a four-year curriculum leading to a bachelor of science degree in exercise physiology, a two-year program leading to a masters of science (clinical or thesis track), and a doctoral program leading to a Ph.D. in exercise physiology.

The Bachelor of Science program meets the knowledge, skill, and aptitude (KSA) requirements for students to be eligible to take the American College of Sports Medicine Health and Fitness National Examination and the National Strength and Conditioning Association Certified Strength and Conditioning Specialist Examination.

WHAT IS AN EXERCISE PHYSIOLOGIST?

Exercise physiology is the study of the biological and biochemical processes associated with exercise and overload that affects the underlying function of cells and organ systems in the human body. Exercise physiology is a rapidly evolving field that is becoming increasingly important in the delivery of healthcare. Exercise physiologists work to prevent or delay the onset of chronic disease in healthy participants or to provide therapeutic or functional benefits to patients with known disease. Services may be offered in a variety of medical settings such as hospitals, rehabilitation centers, and out-patient clinics; in community, corporate, commercial, and university fitness and wellness centers; in nursing homes and senior citizens centers; as well as in research and academic settings.

Research by scientists trained in exercise physiology have greatly expanded our understanding of the ways in which exercise affects cell function. Advances in research in exercise physiology have provided a foundation for many types of medical treatment in areas that include but are not limited to cardiovascular diseases, diabetes, aging, obesity, and disuse atrophy. Employment opportunities are expanding and increase with experience and level of education.

Exercise physiologists are trained to evaluate people in the areas of cardiovascular fitness, muscular strength and endurance, flexibility, neuromuscular integration, and body composition. They are also trained to provide exercise programs based on the results of these evaluations that are designed to increase the functional capacity of the participants.

Exercise physiologists work with athletes, patients, and healthy participants in the areas of disease prevention in wellness programs or rehabilitation in hospital settings. The bachelor of science program is a preparatory program for graduate school. Graduates of this program continue their studies in exercise physiology, physical therapy, medicine, or other health-related careers. Graduates of the master of science or doctoral program find employment in corporate wellness, hospital rehabilitation, higher education, or other research settings. Graduates of our Ph.D. program have obtained postdoctoral positions in prestigious universities and medical schools. Additionally, they may be employed in a wide variety of private, community, state,

and national agencies. Exercise physiology is an evolving field that is becoming increasingly important with the integration of preventive medicine into the healthcare system. Employment opportunities are expanding and increasing with experience and level of education.

Doctoral Program

The graduate program in exercise physiology fosters a high degree of collaboration among faculty with interests in clinical medicine and basic research.

The faculty in exercise physiology have research expertise in exercise-induced adaptations and pathological tissue remodeling associated with aging, diabetes, and cardiovascular disease. Current areas of inquiry include the following:

- Aging and sarcopenia in skeletal muscle
- Muscle stem cells
- Mitochondria dysfunction and pathophysiological mechanisms of diabetic cardiomyopathy
- The Metabolic Syndrome and right-left heart function
- Immunology/cytokine/myokine responses of muscle to exercise and disease
- Reactive oxygen species development in cardiac and skeletal muscles with aging and diabetes
- Biomechanical and motor control for gait in stroke or spinal cord injury
- Mircrovascular dysfunction with the metabolic syndrome
- Cardiac and skeletal muscle growth and function
- Physiologic basis of lung disease
- Exercise-induced angiogenesis
- Extracellular matrix regulation and gene expression
- Stem cell biology and mechanical signal and tissue regeneration
- Motor unit recruitment in stroke and disability

Our Ph.D. program is intended to give exceptional students knowledge in basic medical and scientific areas to prepare them for careers as effective and knowledgeable researchers and teachers in the broad field of exercise physiology/kinesiology. In the Division of Exercise Physiology, these goals are achieved by several means. Formal coursework in the sub-disciplines of exercise physiology, physiology, biochemistry, molecular biology, pharmacology and neuroscience provides the student with the opportunity to develop a solid foundation in basic subject matter of medical sciences that can be applied to aspects of exercise and disease. The student's knowledge base will be further strengthened by participation in elective courses offered within the division, selected courses offered by other departments within the School of Medicine, and by departments in other colleges of West Virginia University.

PH.D. STUDENTS ARE EXPECTED TO:

- Take an array of courses in exercise physiology, physiology, biochemistry, and molecular biology
- Some students will take courses specializing in clinical science approaches
- Conduct independent research, analyze and interpret the data, and defend the finding's conclusions
- Learn the process of writing and submitting grants
- Present and discuss their research findings at national and international scientific meetings
- Develop and improve teaching skills
- Submit their dissertation research for publication prior to graduation

The Division of Exercise Physiology actively engages in both basic science and clinically-based research, with an emphasis on cardiovascular disease, aging, obesity, and diabetes.

Required Research Participation

Because the doctorate is a research degree, students will be expected to be involved in research from the beginning of their programs. Doctoral students will participate in three research rotations with faculty in exercise physiology during the first two semesters of enrollment. Students are expected to choose a dissertation chair and a dissertation committee by the end of the first year of enrollment. Students should work with their dissertation advisor to design appropriate pilot studies and with that data identify a dissertation project and appropriate research questions/hypothesis to be tested by the proposed research. All approved research projects must be hypothesis-based, and whenever possible, the research questions should address mechanistic questions that explain biological phenomenon relevant to exercise physiology.

Research is conducted throughout the doctoral program with a goal of having at least three manuscripts published or submitted to a journal for peer review before graduation. Students should strive to present their research findings at a minimum of one national/international meeting annually beginning no later than the second year of enrollment in the doctoral program. A minimum of one peer-reviewed manuscript that is derived from the student's dissertation research must be published before graduation.

FACULTY

PROFESSOR

- Stephen E. Alway - Ph.D. (McMaster University)
  Sarcopenia, Muscle Wasting, Diabetes and Muscle Injury

ASSOCIATE PROFESSORS

- Daniel E. Bonner - MS (West Virginia University)
  Clinical Exercise Physiology
- Randall W. Bryner - Ed.D. (West Virginia University)
  Diabetes, Exercise, and Cancer
- David Donley - MS (West Virginia University)
  Exercise and Metabolic Syndrome
- Diana Gilleland - MS (West Virginia University)
  Clinical Exercise Physiology
- John M. Hollander - Ph.D. (University of Wisconsin)
  Cardiovascular Research in Diabetes
- Guyton W. Hornsby Jr. - Ph.D. (Louisiana State University)
  Diabetes and Depression
- Lori Sherlock - Ed.D. (West Virginia University)
  Aquatic Therapy in Obesity

ASSISTANT PROFESSORS

- Paul D. Chantler - Ph.D. (Liverpool John Moores University)
  Metabolic Syndrome, Vascular Biology, the Effects of Aging and CV Diseases on Arterial and Ventricular Structure and Function
- Jean L. McCrory - Ph.D. (Pennsylvania State University)
  Biomechanics in Obesity and Pregnancy
- I. Mark Olfert - Ph.D. (Loma Linda University)
  COPD, Vascular Function, Angiogenesis
- Emidio Pistilli - Ph.D. (West Virginia University)
  Muscular Dystrophy, Muscle Injury, Cytokines
- Sergiy Yakovenko - Ph.D. (University of Alberta)
  Neuromuscular Integration of Movement

ADJUNCT ASSOCIATE PROFESSORS

- Ming Pei - Ph.D. (Beijing University, China)
  Stem Cells, Cartilage Repair

Degree Requirements

A minimum GPA of 3.0 is required in all courses

A grade of B or higher must be earned in all required courses		
PSIO 743	Fundamentals of Physiology	5
EXPH 567	Exercise Physiology 2	4
EXPH 682	Research Design and Methods	4
STAT 511	Statistical Methods 1	3
Electives		3
Complete 1 of the following Tracks		26
Thesis Track		
AGBI 514	Animal Biotechnology	
EXPH 697	Research (18 hours)	
EXPH 698	Thesis or Dissertation (2 hours)	
EXPH 799	Graduate Colloquium (2 hours)	
Clinical Track		
EXPH 670	Lab Techniques and Methods 2	
PCOL 549	Applied Pharmacology	
EXPH 680	Advanced Clinical Exercise Physiology	

EXPH 681	Clinical Exercise Prescription	
EXPH 696	Graduate Seminar	
EXPH 672	Professional Field Placement (4 hours)	
EXPH 673	Exercise Prescription	
Electives (4 hours)		
Total Hours		**45**

Degree Requirements

Minimum overall GPA of 3.0 required. *		
Minimum GPA of 3.0 in all EXPH courses required.		
A grade of B must be earned in all required courses.		
AGBI 514	Animal Biotechnology	4
EXPH 567	Exercise Physiology 2	4
EXPH 670	Lab Techniques and Methods 2	3
EXPH 672	Professional Field Placement	4
EXPH 673	Exercise Prescription	3
EXPH 680	Advanced Clinical Exercise Physiology	3
EXPH 681	Clinical Exercise Prescription	4
EXPH 682	Research Design and Methods	4
Graduate Seminar		2
EXPH 696	Graduate Seminar	
EXPH 697	Research	3
EXPH 698	Thesis or Dissertation	2
EXPH 786	Musculoskeletal Biology	3
EXPH 787	Cardiopulmonary Physiology	3
EXPH 797	Research	15
EXPH 798	Thesis or Dissertation	2
EXPH 799	Graduate Colloquium	2
PCOL 549	Applied Pharmacology	4
PSIO 743	Fundamentals of Physiology	5
STAT 511	Statistical Methods 1	3
Electives		3-6
Qualifying Exam		
Dissertaion Proposal		
Dissertation Defense		
Total Hours		**76-79**

*   One C is permitted in a maximum of one non-EXPH course.

Health Sciences

Degree Offered

- Master of Science

The Master of Science (M.S.) program in the **Health Sciences** emphasizes enhancing knowledge in the biomedical and public health disciplines to increase the student's competitiveness for admission to professional or graduate programs and/or to augment the student's career potential. The program is a one-year, non-thesis masters. Completion of the M.S. degree is realized when the student has fulfilled all course requirements and the independent study project. Students can enter the program in either the Fall semester or the Summer Session. The Master of Science (M.S.) in the Health Sciences is a terminal degree program targeting students interested in developing their skills toward a career requiring basic science knowledge. The objectives of this program are to

1. provide integrative scientific education in the biomedical and public health sciences to graduates from an accredited undergraduate institution
2. provide the opportunity to explore career options in various health professional disciplines
3. develop integrative and critical thinking skills to allow application of scientific knowledge to traditionally non-scientific fields

4. train students in the rudiments of research on a basic science, public health or clinical topic; these include hypothesis testing, data collection, manuscript preparation
5. enhance competitiveness for admission to a health professional and/or Ph.D. program
6. enhance skills for job placement including resume and cover letter evaluation, and interviewing preparation.

To achieve these objectives, the program has two areas of emphasis: (1) advancement of basic science and public health knowledge for career enhancement and (2) partnering basic science with other disciplines. In the first area of emphasis, the student will augment his/her scientific skills with advanced coursework emphasizing critical thinking and application of that knowledge to problems facing human health. This area targets students interested in pursuing professional or advanced academic degrees. In the second area of emphasis, the student can expand their knowledge to allow them to direct a non-scientific career toward one that relies on a scientific skill set. Students in this area of emphasis may be teachers wishing to teach science in secondary schools, individuals interested in eventually achieving other professional degrees such as a J.D. or M.B.A. to pursue patent law or a position in a biotech/pharmaceutical company, or positions as a scientific liaison translating scientific knowledge to the general public in a community organization or a for profit company, a position sometimes called a knowledge broker.

Proposed coursework is designed to build the foundation knowledge common to first-year curricula in medical and dental schools and biomedical and public health Ph.D. programs. The common core curriculum will include coursework in the basic and public health sciences, biostatistics, epidemiology, and social and behavioral theory. The director of the M.S. in the Health Sciences works with each student to tailor electives to fit the student's career goals. In addition to coursework, the student will participate in a series of activities:

-Preparation of an independent development plan and evaluation/aid in implementation of this plan

-Training in reading and evaluation of the scientific literature

-Enrichment activities to enhance career development skills, such as preparation to take entrance exams, preparation of resumes and cover letters, seminar presentation skills, and interviewing skills

-Participation in seminars to learn cutting edge advancements in science

-Cross-disciplinary approach to the acquiring and application of scientific knowledge

FACULTY
PROFESSOR

- Lisa M. Salati - PhD
  Program Director

All applications to the M.S. in the Health Sciences program are accepted electronically and must be submitted electronically via the official WVU Graduate Education application:

https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantConnectLogin.asp?id=wvugrad.

M.S. in the Health Sciences applications are reviewed beginning in January by a Common Admissions Committee comprised of the Director of the M.S. in Health Sciences, the School of Medicine Associate Dean for Student Services and Curriculum, the School of Public Health Senior Associate Dean for Academic Affairs and Educational Effectiveness, the School of Dentistry Associate Dean for Admissions, Recruitment and Access, and the Director of HCOP or their designee. The Assistant VP for Graduate Education and the Assistant Director of HSC Graduate Education are *ex officio* members.

Students may apply for admission beginning in either the summer session or the fall semester of that year. Decisions of acceptance are made on a rolling basis until all slots are filled. All decisions made by the Admissions Committee are final. For maximum admissions consideration, we recommend that you apply as early as possible.

Please visit http://www.hsc.wvu.edu/ResOff/Health-Sciences/How-to-Apply to review the application process.

Master of Science
MAJOR REQUIREMENTS

PSIO 743	Fundamentals of Physiology	5
EPID 601	Public Health Epidemiology	3
BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
BIOC 531	General Biochemistry	4
BMS 694 (taken 1-2 times)		2
SBHS 601	Social and Behavioral Theory	3
BMS 695 (taken 3 times)		6

Electives			9
Presentation of independent study project			
Total Hours			**36**

Independent Study

Students are required to register for independent study each semester and during summer session. The student will conduct an independent project under the guidance of a faculty advisor. The project can involve data collection, retrospective analysis of patient data, a comprehensive literature review, or other activity approved by the graduate director that is consistent with the student's career goals. During the final semester in residence, the student presents a short talk of the results or culmination of his/her project.

Seminar: Journal Club

Students are required to register for seminar: journal club at least once during the course of the degree. Regardless of registration in this course, students still participate in the sessions. The fall semester emphasizes learning to read the scientific literature and gain new knowledge by attending seminars. The spring semester emphasizes learning how to present a seminar.

Additional Enrichment Activities

To enhance the attainment of his/her career goal, the student may take a preparative course for the MCAT, DAT or GRE exams. Students may shadow professional in their field of interest. Additional activities can include: preparation for interviewing, resume preparation, writing the personal statement, and taking undergraduate prerequisites. These activities can occur throughout the degree program.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
PSIO 743[*]	5	BIOC 531[*]	4	BMS 695	2
EPID 601	3	SBHS 601	3	Elective	3
BIOS 601	3	Elective	3		
BIOS 602	1	Elective	3		
BMS 694	2	BMS 695	2		
BMS 695	2				
	16		**15**		**5**

Total credit hours: 36

*These courses are part of the curriculum for the Doctor of Dental Surgery degree in the School of Dentistry at West Virginia University. Students seeking admission to that program cannot take these courses; the graduate director will work with these students to find substitutions based on their individual skill set.

Immunology and Microbial Pathogenesis

jbarnett@hsc.wvu.edu

Degrees Offered

- Doctor of Philosophy
- Joint Doctor of Medicine and Doctor of Philosophy

Educational Objectives

The Doctor of Philosophy degree in Immunology and Microbial Pathogenesis will prepare students from diverse backgrounds to serve as professionals that are knowledgeable about the immune system of humans and other mammals, how the immune system functions, and the consequences of its malfunction on the health of the host. Knowledge of the immune system will be fully integrated with an excellent understanding of the diversity of microorganisms that cause disease in humans and other mammals and mechanisms of disease pathogenesis. Graduates will possess the laboratory skills and knowledge needed to assess the functional status of the immune system and to assess the mechanism used by microbial agents to cause disease in mammals.   Graduates will be qualified to pursue several professional career paths in private industry, state and federal government, and academic institutions.

The doctoral program in Immunology and Microbial Pathogenesis emphasizes extensive laboratory research in microbiology, immunology, microbial pathogenesis, and/or cell biology, i.e. the major purpose of graduate education in the program is research training. The basic philosophy of the program is that students acquire a strong foundation in the basic concepts of immunology and microbial pathogenesis and have flexibility in choosing advanced

coursework in their specific areas of interest. Each student will complete an original, in-depth research investigation. Its learner-centered curriculum integrates both classroom and hands-on research experiences to produce students capable of designing and doing independent research and teaching.

Completion of the Ph.D. degree is realized when the student successfully presents the research results to faculty of the graduate dissertation committee and program/department. Typically, four to five years are required to realize this goal.

Faculty members and students explore diverse areas of inquiry related to the medical implications of microbes and the human body's response to them.

Current Research Areas

- Immunology
- Effects of man-made pesticides and herbicides on the immune system
- Effects of heavy metals on the immune system
- Biochemistry of inflammatory cytokines
- Immune response in bacterial and viral diseases
- Regulation of signal transduction in immune responses
- Molecular aspects of cell signaling as it relates to cancer chemotherapy and cell growth
- Peptide and DNA vaccines for contraception
- Microbiology
- Physiology of pathogenic microbes
- Microbial genetics
- Mechanisms of bacterial pathogenesis
- Chemotaxis and motility
- Interactions between microbes and their hosts
- Molecular mimicry and structure-function relationship of bacterial virulence factors
- Microbial biofilms

FACULTY
GRADUATE PROGRAM DIRECTOR
- John Barnett - Ph.D. (University of Louisville)

PROFESSORS
- Nyles Charon - Ph.D. (University of Minnesota)
- Christopher Cuff - Ph.D. (Temple University)
- Thomas Elliott - Ph.D. (University of California San Diego)
- Laura F. Gibson - Ph.D. (West Virginia University)
- Kenneth Landreth - Ph.D. (University of Washington)
- Rajesh Naz - Ph.D. (All India Institute of Medical Sciences, New Delhi)
- Vazhaikkurichi Rajendran - Ph.D. (University of Madras)

ASSOCIATE PROFESSORS
- Slawomir Lukomski - Ph.D. (University of Lodz, Poland)
- Joan C. Olson - Ph.D. (Oregon Health Sciences University)
- Rosana Schafer - Ph.D. (Temple University)
- James M. Sheil - Ph.D. (University of Kentucky)

ASSISTANT PROFESSORS
- Mariette Barbier - Ph.D. (Universitat de les Illes Balears)
- Kathy Brundage - Ph.D. (University of Pennsylvania)
- F. Heath Damron - Ph.D. (Marshall University)
- Ivan Martinez - Ph.D. (University of Pittsburgh)
- Gordon Meares - Ph.D. (University of Alabama)
- Valerie Watson - M.S. (West Virginia University)

ADJUNCT PROFESSOR

- David Weissman - Ph.D. (Northwestern University)

ADJUNCT ASSISTANT PROFESSORS

- Brett J. Green - Ph.D.(University of Sydney)
- David Klinke - Ph.D. (Northwestern University)

Doctor of Philosophy

MAJOR REQUIREMENTS

BMS 700	Scientific Integrity	1
BMS 706	Cellular Methods	1
BMS 720	Scientific Writing	2
Journal Club		7
MICB 785	Immunology and Microbiology Journal Club	
MICB 790	Teaching Practicum	2
BMS 791A	ADTP:Short Lab Experience	2
BMS 793A	SPTP:Fndtn-Cntmp Biomd Rsrch 1	4
BMS 793B	SPTP:Fndtn-Cntmp Biomd Rsrch 2	4
Graduate Seminar		8
MICB 796	Graduate Seminar	
Research		43
MICB 797	Research	
Two Advanced Courses		6-8
Biomedical Science Modules- select two courses from the following:		7
BMS 715	Molecular Genetics	
BMS 730	Cancer Cell Biology	
BMS 732	Introduction to Physiological Systems and Disease	
BMS 738	Muscle Structure and Function	
MICB 784	Special Problems	
PHAR 779	Drugs: Bench to Market	
Qualifying Exam		
Dissertation Proposal		
Dissertation Defense		
Total Hours		**87-89**

Seminars and Research Forum

Students are required to register for MICB 796 each semester of residence and are required to present at least one seminar during each school calendar year (Fall – Spring semesters).

Journal Club

Students are required to enroll in Journal Club each semester. The course involves the presentation and discussion of current research papers and will help acquaint students with the variety of methods used in scientific research.

Doctoral Research

Students will conduct research with a dissertation mentor during time in the program. Students register for research credits each semester, and their performance is graded by their dissertation mentor.

Qualifying and Dissertation Proposal/Ph.D. Candidacy

The written qualifying exam is given at the end of the first year of study. The dissertation proposal is completed in the third year of study. Admission to Ph.D. candidacy occurs following the successful defense of the dissertation proposal.

Dissertation Defense and First-Author Paper Requirement

Students are allowed to defend their dissertation when a minimum of one manuscript with the student as first author, based on dissertation research, is accepted in a peer-reviewed journal. The final examination for the Ph.D. degree consists of orally defending a written dissertation in a public seminar and then in private to the dissertation committee. Satisfactory performance in the oral defense will result in recommendation for granting of the PhD.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700	1	Biomedical Science Modules	7	MICB 797	3
BMS 706	1	MICB 785	1	Qualifying Examination	
BMS 791A	2	MICB 796	1		
BMS 793A	4				
BMS 793B	4				
	12		**9**		**3**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
Advanced Course	3	Advanced Course	3	BMS 720	2
MICB 785	1	MICB 785	1	MICB 797	1
MICB 790	1	MICB 790	1		
MICB 796	1	MICB 796	1		
MICB 797	3	MICB 797	3		
	9		**9**		**3**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
MICB 785	1	MICB 785	1	MICB 797	3
MICB 796	1	MICB 796	1		
MICB 797	7	MICB 797	7		
		Dissertation Proposal			
	9		**9**		**3**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
MICB 785	1	MICB 785	1	MICB 797	3
MICB 796	1	MICB 796	1		
MICB 797	7	MICB 797	7		
	9		**9**		**3**

Total credit hours: 87

NOTE: The graduate curriculum is finalized with a plan of study once the mentor and laboratory have been selected in the first year. The plan of study is developed by the graduate committee in consultation with the student. The courses listed above include the required and elective coursework necessary for the student to finalize his/her plan of study. When the student enters the laboratory of his/her doctoral dissertation mentor repetitive enrollments in research, seminars, and colloquia are typical and will determine total hours necessary for degree completion.

Medicine

Degrees Offered

- Doctor of Medicine
- Joint Doctor of Medicine and Doctor of Philosophy
- Joint Doctor of Medicine and Master's in Public Health
- Joint Doctor of Medicine Jurisprudence Degree
- Joint Doctor of Medicine and MBA

The degree of doctor of medicine (M.D.) is granted to students who have completed the prescribed curriculum and who have been recommended for the degree by the faculty of the School of Medicine.

The M.D./PhD. program is available to students who show exceptional interest and scholarly promise. All admission requirements of the School of Medicine and the specific graduate program apply. An M.D./M.P.H. program is available for those interested in public health issues.

The following information applies only to students in the School of Medicine who are enrolled in the prescribed curriculum which culminates in the M.D. degree. All other students, undergraduates, or graduates enrolled in other programs in the School of Medicine are governed by the policies found elsewhere in this catalog.

Accreditation

The West Virginia University School of Medicine is accredited by the Liaison Committee on Medical Education (LCME).

Promotion and Graduation Requirements

EVALUATION OF STUDENT PROGRESS

Promotion of a student in the M.D. degree program is evaluated in four major areas: (1) successful completion of all required work, (2) successful completion of Step 1 and Step 2 of the United States Medical Licensure Examination (USMLE), (3) successful completion of the WVU School of Medicine Clinical Performance Exam, and (4) successful fulfillment of the professional standards of the School of Medicine, including 100 hours of community service.

The following information is only a brief outline of the School of Medicine policies and procedures. Detailed requirements and policies for evaluation of student progress and graduation may be found in the Policy on Academic and Professional Standards Governing the M.D. degree program at WVU School of Medicine on the Student Services website. The Committee on Academic and Professional Standards administers all promotion and dismissal rules.

Academic Coursework Review

The Committee on Academic and Professional Standards of the School of Medicine reviews the performance of each student in every course at the end of each academic period and makes recommendations to the dean. If a student has been found to have an unsatisfactory performance in any of the required courses, dismissal from the school may be recommended. In selected circumstances, the committee may recommend remedial work of all or a portion of the curriculum. Exceptions may be made only upon recommendation of the committee. The application of rules on dismissal is not automatically changed by removal of incomplete (I) grades or by the repetition of courses in other medical courses.

A student may be subject to remedial work or dismissal on recommendation of the Committee on Academic and Professional Standards to the dean even though no failing (F) grade has been received in a required course. Such an event would occur only if, in the opinion of the committee, the student's overall performance does not meet the academic/professional standards of the School of Medicine.

Readmission of a dismissed student is the prerogative of the Admissions Committee after careful review of the student's performance, including but not limited to, recommendations of the Committee on Academic and Professional Standards.

Grading Policy

All courses required for the M.D. degree are graded as honors (H), pass (P), or fail (F) at the completion of the course in lieu of other letter grades. The H, P, and F designations are accompanied by a narrative report of the student's progress, noting any factors requiring remedial work or counseling. The narrative is submitted by each course and filed in the student portfolio. A grade of F shall be regarded as a failing grade.

The grade of incomplete (I) is given when the instructor believes that the work is unavoidably incomplete or that a supplementary examination is justifiable. If a grade of I is not removed by satisfactory completion of the work before the end of the next semester in which the student is in residence, it becomes a failure unless special permission to postpone the work is obtained from the Committee on Academic and Professional Standards (University rule). All students who have a health problem which they feel may be causing difficulty with their academic progress are strongly advised to notify an associate dean for student services. It is the responsibility of the student to consult the instructor about the means and schedule for making up incomplete courses.

No student will be permitted to register for any work of the second or subsequent year until all courses for the year before have been completed successfully.

United States Medical Licensure Examination (USMLE)

All states require that physicians be licensed to practice medicine. Satisfactory completion of all portions of the United States Medical Licensing Examination (USMLE) is the only examination mechanism by which this license may be obtained. The School of Medicine requires a passing grade on Step I and Step II for promotion and graduation. A failing grade will delay progress and require remediation. Students are limited to three attempts on each step.

Step I is required upon successful completion of all basic science coursework. A passing grade in Step I is required for promotion into the clinical rotations. Step II (clinical knowledge and clinical skills) is required after successful completion of third-year clinical rotations. A passing score on Step

II is required before a recommendation can be made to grant the M.D. degree by the School of Medicine faculty and Committee on Academic and Professional Standards.

Licensure examinations are administered using a computer-based testing format.

Professional Standards Review

All non-disciplinary matters are governed by the concept of academic due process.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession. For further information the reader is referred to the Policy on Academic and Professional Standards Governing the M.D. Degree Program at West Virginia University School of Medicine, which is available at the School of Medicine Student Services website.

Departure from Scheduled Work

Medical students are registered for all prescribed courses for each semester except by special permission from the Committee on Academic Standards and an associate dean for student services of the School of Medicine. This permission is not valid until it has been reported to the assistant director of admissions and records, Health Sciences Center, and Student Services, School of Medicine.

Admission Requirements

The student preparing for any career in the health professions must have a keen interest in the sciences.

The following courses are required for consideration of an application to medical school:

- English: six semester hours (1 writing intensive course can be substituted)
- Biological sciences (with lab): eight semester hours
- Inorganic chemistry (with lab): eight semester hours
- Biochemistry with lab will be accepted instead of one semester of organic
- Physiology, three hours is highly recommended
- Organic chemistry (with lab): eight semester hours
- Physics (with lab): eight semester hours
- Social or behavioral sciences: nine semester hours

Biochemistry and Cellular and Molecular Biology are strongly recommended. A total of ninety semester hours, exclusive of ROTC and general physical education, as well as 3 years of undergraduate education is required. Computer skills are required. All required courses must be passed with a grade of C or better. All required classes must be completed prior to January 1 of the year of admission.

An excess of credit hours or higher degrees does little to offset the disadvantage of low grades when being considered for admission to the School of Medicine. Repeating courses to raise the grade is discouraged. Applicants who have been subject to suspension from WVU or other medical schools can be admitted only in very exceptional cases and at the discretion of the Admissions Committee.

Pre-Admission Tests

The score of the Medical College Admissions Test (MCAT) is one of the factors used by the Admissions Committee in considering an applicant for admission. It is recommended that students take the MCAT during the spring of their junior year in college. The MCAT must be taken by September of the year of application. MCATS taken in January of the year of admission will not be considered. The dates for beginning and closure of application acceptances are available through AMCAS and on our website.

Information concerning the time and place of the test can be obtained from your premedical advisor or the Office of Admissions at the Health Sciences Center.

Application Procedure

West Virginia University School of Medicine uses a Holistic Review for each application.

The admission process is initiated by completing the online American Medical College Application Service (AMCAS) forms. They are online at http://www.aamc.org.

Application for admission in August should be made at the end of the previous school year. The last date for filing an application through AMCAS is November 1. The applicant should file as early as possible, making certain that recent MCAT scores, current transcripts, and letters of recommendation are available to the Admissions Committee.

Admission preference is given to West Virginia residents and those non-resident applicants who have strong ties to the state or verifiable interests in rural and primary care. In a holistic review of an applicant, not one specific factor is used to determine admission. However, careful consideration is given to those personal qualifications which apply to the study and practice of medicine. The criteria for admission include academic performance, course load, letters of recommendation, MCAT scores, motivation, interpersonal skills, community service, health care experiences, and a personal interview. An early decision program is available for those residents and non-residents with strong grades and MCATs who wish only to apply and attend WVU.

No applicant is admitted before an interview by the Admissions Committee. Residency status is determined by the Board of Governors Policy Bulletin #36. Interviews and consideration of applicants begin in September. Acceptances are made on a rolling basis.

If an applicant is denied admission or does not enroll after acceptance, he or she must reapply in the regular manner for consideration in a subsequent year.

Advanced Standing

Advanced standing positions are considered only in very exceptional circumstances and only to students currently attending a medical school accredited by the Liaison Committee on Medical Education (LCME). A request for transfer is usually considered during the second year. The application must be received no later than April 1. The applicant must present certification of good academic and professional standing in the school from which he/she is transferring. An official transcript of all prior medical school work and recommendations are required from all medical schools attended. In addition, successful results of Step I of the United States Medical Licensure Examination must be available before action on an application can be finalized.

Conditions Following Acceptance

An applicant accepted into the first year or in advanced standing is expected to meet all entrance requirements and satisfactorily complete all undergraduate/medical school work in progress. Failure to do so may result in the withdrawal of the acceptance by the Admissions Committee.

The student must be aware that furnishing, or causing to be furnished, false or incorrect information for the purpose of the School of Medicine application constitutes grounds for disciplinary actions, including, but not limited to, expulsion or revocation of the acceptance.

A criminal background check is required and must be successfully passed prior to matriculation. Certain convictions negate an offer to attend medical school at WVU.

Students in the School of Medicine agree to abide by the provision of an integrity code, which requires ethical and moral standards of conduct in all situations. Each student is required to return a signed statement to the Office of Student Services, indicating the student has read and understands the Student Professional and Academic Integrity Code of the West Virginia University School of Medicine. The code and copies of the statement are available on the Student Services website.

Prior to entering medical school, all students must complete certain prescribed immunization and diagnostic procedures. Personal health insurance is required.

Medical Education Program of Study

On the most recent restructuring of medical education curriculum, the most significant changes include the following:

1. Students begin clinical experiences early in their first year of medical school.
2. The basic science disciplines have been integrated.
3. Incoming medical students are required to lease a laptop computer to use in the curriculum that incorporates information and academic technology in the delivery of instruction.

With these principles in mind, the old semester (college-like) schedule of the independent discipline-based courses, for example, physiology, gross anatomy, biochemistry, neurobiology, microanatomy, epidemiology, and psychiatry has been replaced.

CURRICULUM

BMP 741	Clinical Clerkship in Psychiatry	6
Problem-based Learning		4
CCMD 701	Problem-Based Learning (Repeated)	
CCMD 712	Public Health	3
CCMD 721	Physical Diagnosis/Clinical Integration 2	4
CCMD 722	Physical Diagnosis and Clinical Integration 2	5
CCMD 725	Health Care Ethics	2
CCMD 730	Human Function	16
CCMD 740	Behavioral Science and Psychopathology	4
CCMD 745	Physical Diagnosis/Clinical Integration 1	3

CCMD 746	Physical Diagnosis and Clinical Integration	4
CCMD 775	Neurobiology	7
CCMD 776	Step-One Board Preparation	3
CCMD 777	Step-2 Board Prep	2
CCMD 778	Basic Medical Science Exam	2
CCMD 779	Clinical Performance Examination	1
CCMD 780	Hospital Care	4
CCMD 781	Rural Health	4
CCMD 782	Critical Care	4
CCMD 788	Elective Requirement	20
CCMD 788	Selective Experiences in Medicine	3
FMED 731	Clerkship	8
MED 731	Clinical Clerkship in Medicine	8
MICB 801	Immunity, Infection and Disease	9
NBAN 801	Human Structure	19
NEUR 741	Clinical Clerkship in Neurology	2
OBST 741	Clinical Clerkship in Obstetrics and Gynecology	8
PATH 801	Mechanisms of Human Disease	11
PCOL 801	Medical Pharmacology	9
PEDI 731	Clinical Clerkship in Pediatrics	8
SURG 741	Clinical Clerkship in Surgery	8
Total Hours		**191**

FIRST YEAR

Medical students' first year is a thirty-seven-week academic year divided into three blocks (sixteen weeks, fifteen weeks, and seven weeks). There are approximately twenty-four scheduled instructional contact hours per week. Each block contains three courses: a basic science multidisciplinary course, public health (epidemiology, biostatistics, and preventive medicine) in the fall, and physical diagnosis and clinical integration (large group alternating every other week with small groups). While physical diagnosis and clinical integration runs throughout the year, the basic science component changes each block. The first block (sixteen weeks) contains a multidisciplinary run course: human function (physiology, biochemistry, and genetics.). Second block (fifteen weeks) consists of human structure (gross anatomy, embryology, and microanatomy: large group and laboratory). Third block (seven weeks) consists of multidisciplinary neuroscience (ten hours large group, laboratory, and small group). A weekly problem-based learning group is maintained throughout the first year. Students also complete a summer selective experience for a total of 3 credit hours.

SECOND YEAR

Medical students' second academic year is thirty-four weeks. The schedules of course material from Microbiology and Immunology, Pathology, Pharmacology, and Physical Diagnosis and Clinical Integration-two courses are integrated by organ system. Each course maintains its autonomy with respect to assessment of student performance. This integrated, yet independent, approach assists students in finding remediation courses if they experience academic difficulty in any one particular discipline. In addition to the integration of the schedule of these four courses, there is an additional course, Behavioral Science and Psychopathology, in the fall and Health Care Ethics in the spring. There are approximately twenty-six scheduled instructional contact hours per week.

CLINICAL YEARS

The last two years of study take place in the clinics, hospitals, and community settings where students have the opportunity to help diagnose and treat patients under supervision of the faculty and staff. All students will serve a significant portion of the clinical years training at an off-campus or rural site.

THIRD YEAR

In the third year, the student must spend a designated period of time in each of the major clinical disciplines: internal medicine, surgery, pediatrics, obstetrics and gynecology, psychiatry and neurology, and family medicine for a total of 48 weeks. This gives the student a foundation in history-taking, examination, patient relations, laboratory aids, diagnosis, treatment, and use of the medical literature in the major clinical disciplines. One month is spent in rural primary care.

Approximately one-third of each class completes third and fourth year at the Charleston Division of the Robert C. Byrd Health Sciences Center of West Virginia University. A smaller number of students will also complete their third and fourth year at the Eastern Division Campus.

FOURTH YEAR

The fourth year is a partially structured and partially elective year. Each student works with an advisor to select the program best suited to the individual's abilities and goals. Courses selected are subject to approval of an associate dean Student Services.

Three months of the senior year are committed to required clerkships at the home campus which include one month in internal medicine, family general medicine, surgery, or pediatric sub-internship; one month of acute care, and one month of rural community care. The remaining five months of the senior year are elective at approved teaching sites.

A catalog is available online that lists the approved electives and selection guidelines at http://medicine.hsc.wvu.edu/ms4catalog

Elective time must be spent in LCME (Liaison Committee on Medical Education) or JCAH (Joint Council of American Hospitals) accredited institutions. Foreign rotations, regardless of sponsorship, are limited to one month credit.

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
CCMD 712	3	CCMD 701	2	CCMD 788	3
CCMD 730	16	CCMD 746	4		
CCMD 745	3	CCMD 775	7		
CCMD 701	2	NBAN 801	19		
	24		**32**		**3**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
CCMD 721	4	CCMD 722	5	CCMD 776	3
CCMD 740	4	CCMD 725	2		
MICB 801	9	CCMD 778	2		
PATH 801	11	MICB 801 is a year long course			
PCOL 801	9	PATH 801 is a year long course			
		PCOL 801 is a year long course			
	37		**9**		**3**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
FMED 731	8	BMP 741	6	SURG 741	8
MED 731	8	NEUR 741	2		
OBST 741	8	PEDI 731	8		
	24		**16**		**8**

Fourth Year

	Hours
CCMD 777	2
CCMD 779	1
CCMD 780	4
CCMD 781	4
CCMD 782	4
Elective Requirement	20
35	

Total credit hours: 191

Neuroscience

aberrebi@hsc.wvu.edu

Degrees Offered

- Doctor of Philosophy
- Joint Doctor of Medicine and Doctor of Philosophy

The doctoral program in **Neuroscience** is committed to training the next generation of researchers and educators. Successful completion of degree requirements is based on research and scholarly achievement. Students will have opportunities to experience and acquire the skills needed for successful careers as independent scientists, including critical thinking, problem solving, and leadership. After completion of core coursework, students conduct an original research project culminating in a doctoral dissertation. Research experiences include evaluating scientific literature, identifying critical scientific issues, experimental design, grant and manuscript writing, publication of scientific papers, and presentations at national meetings. Students with career interests in teaching will have the opportunity to gain experience in innovative teaching methods and techniques, including problem-based learning, computer-assisted learning, and integrated teaching approaches. Faculty members have appointments in basic and clinical departments with expertise that spans all neuroscience sub-disciplines, including structural, cellular, molecular, and developmental.

The neuroscience graduate program emphasizes research on the function and dysfunction of the brain and nervous system, providing students with innovative approaches to understanding neural mechanisms responsible for diseases such as Alzheimer's disease, stroke, brain injury and repair, as well as fundamental understanding of cellular and molecular neurobiology, motor and sensory systems, neural processing, cognition, behavior, and neural development.

Completion of the Ph.D. degree is realized when the student successfully presents the research results to faculty of the graduate dissertation committee and program/department. Typically, four to five years are required to realize this goal.

CURRENT RESEARCH AREAS INCLUDE THE FOLLOWING:

Sensory Neuroscience: mechanisms of auditory and visual system development, inhibitory neural circuits in the brain stem and cortex, synaptic development of thalamocortical circuits, molecular genetic control of retinal development and neural patterning, cell biology of G-protein-mediated signal transduction in vertebrate photoreceptors, olfactory signal processing in the brain, post-translational modification of proteins and protein assembly.

Cognitive Neuroscience: sound recognition, spatial hearing and sensory integration using fMRI, use-dependent plasticity in motor cortex after stroke, neurogenic communication disorders.

Neural Injury: functional and structural integrity of the blood brain barrier in health and disease, role of neuroinflammation in CNS pathologies, stroke pathophysiology and neuroprotection.

Behavioral Neuroscience: airway innervation and asthma, structural and functional changes in the hypothalamus of seasonal breeders, neurobiological pathways controlling food intake and obesity, plasticity in the amygdala, development of new compounds to treat neurological and psychiatric disorders, developmental aspects of sleep and sleep disorders, molecular psychopharmacology; learning, memory, and synaptic plasticity; signal transduction pathways involved in neurodegenerative and neuropsychiatric disorders.

Interdisciplinary research projects include: structure and transcriptional mechanisms controlling neural gene expression, molecular biology, and molecular genetics of neural degeneration and regeneration in the central nervous system; developmental neurochemistry and environmental influences on brain development, especially nutrition; neuroanatomy and neurophysiology of somatosensory and auditory systems, structural plasticity of astrocytes and modulation of synaptic contacts in the central nervous system, developmental neurobiology of anxiety disorders, development of synaptic connections in the neocortex, developmental genetics of rodent behavioral mutants; neural basis of pulmonary diseases, especially asthma and occupational/environmental diseases; mechanisms regulating microcirculation under pathophysiological conditions.

For the most up-to-date information regarding West Virginia University's multidisciplinary neuroscience degree program and activities, please visit the web site at http://www.hsc.wvu.edu/wvucn/

FACULTY

GRADUATE PROGRAM DIRECTOR

- Albert Berrebi - Ph.D. (University of Connecticut)

Doctor of Philosophy

MAJOR REQUIREMENTS

BMS 700	Scientific Integrity	1
BMS 706	Cellular Methods	1
BMS 720	Scientific Writing	2
CCMD 775	Neurobiology	7
NBAN 790	Teaching Practicum	1
NBAN 791	ADTP:Neuroscience I	5

NBAN 791	ADTP:Neuroscience II	3
BMS 791A	ADTP:Short Lab Experience	3
NBAN 793	Special Topics	7
BMS 793A	SPTP:Fndtn-Cntmp Bio Rsrch 1	4
BMS 793B	SPTP:Fndtn-Cntmp Bio Rsrch 2	4
Graduate Seminar		8
NBAN 796	Graduate Seminar	
Research		43
NBAN 797	Research	
Electives		4-8
Qualifying Examination		
Dissertation Proposal		
Dissertation Defense		
Total Hours		**93-97**

Seminars and Research Forum

Students are required to register for seminar in each semester of residence.

Journal Club

Students are required to enroll in Journal Club each semester. The course involves the presentation and discussion of current research papers and will help acquaint students with the variety of methods used in scientific research.

Doctoral Research

Students will conduct research with a dissertation mentor during time in the program. Students register for research credits each semester, and their performance is graded by their dissertation mentor.

Qualifying and Dissertation Proposal/Ph.D. Candidacy

The oral qualifying exam is given at the end of the second year of study. The dissertation proposal is completed in the third year of study. Admission to Ph.D. candidacy occurs following the successful defense of the dissertation proposal.

Dissertation Defense and First-Author Paper Requirement

Students are allowed to defend their dissertation when a minimum of one manuscript with the student as first author, based on dissertation research, is accepted in a peer-reviewed journal. The final examination for the Ph.D. degree consists of orally defending a written dissertation in a public seminar and then in private to the graduate dissertation committee. Satisfactory performance in the oral defense will result in recommendation for granting of the Ph.D. degree.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700		NBAN 791-ADTP:Neuroscience I	1	CCMD 775	5	7
BMS 706		NBAN 793	1	NBAN 797	1	2
BMS 791A		NBAN 796	2		1	
BMS 793A		NBAN 797	4		2	
BMS 793B			4			
			12		**9**	**9**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
NBAN 791-ADTP:Neuroscience II		Elective	3	BMS 720	3	2
NBAN 793		NBAN 793	1	NBAN 797	1	1
NBAN 796		NBAN 796	1		1	
NBAN 797		NBAN 797	4		4	

	Qualifying Examination				
		9		**9**	**3**
Third Year					
Fall	**Hours**	**Spring**	**Hours**	**Summer**	**Hours**
NBAN 790	1	NBAN 793	1	NBAN 797	3
NBAN 793	1	NBAN 796	1		
NBAN 796	1	NBAN 797	7		
NBAN 797	6	Submit pre-doctoral application (NRSA, AHA, etc.)			
Dissertation Proposal					
		9		**9**	**3**
Fourth Year					
Fall	**Hours**	**Spring**	**Hours**	**Summer**	**Hours**
NBAN 793	1	NBAN 793	1	NBAN 797	3
NBAN 796	1	NBAN 796	1		
NBAN 797	7	NBAN 797	7		
		9		**9**	**3**

Total credit hours: 93

NOTE: The graduate curriculum is finalized with a plan of study once the mentor and laboratory have been selected in the first year. The plan of study is developed by the graduate committee in consultation with the student. The courses listed above include the required and elective coursework necessary for the student to finalize his/her plan of study. When the student enters the laboratory of his/her doctoral dissertation mentor repetitive enrollments in research, seminars, and colloquia are typical and will determine total hours necessary for degree completion.

Occupational Therapy

Degree Offered

- Master of Occupational Therapy (MOT)

Introduction

In the fall of 1993, the West Virginia Board of Trustees approved the establishment of a new master's degree program at WVU, leading to an entry-level master's degree in occupational therapy. WVU accepted its first students into the professional program in the fall semester of 1996. The academic and fieldwork program requires three years to complete. Prior to application, students are required to complete approximately fifty to sixty hours of prerequisite courses, which in most instances will take two years to fulfill.

The Profession of Occupational Therapy

Occupational therapy is a health and rehabilitation profession which provides services to people of all ages, and addresses physical, cognitive, psychosocial, sensory, communication, and other areas of performance in various contexts and environments in every day life activities that affect health, well-being, and quality of life (AOTA, 2004). Occupational Therapy is a caring profession designed to help people regain and build skills that are important for health, well-being, security, and happiness. The purpose of occupational therapy is to help individuals achieve a maximum level of independence and function through engagement in occupation in order to lead independent, productive, and satisfying lives. The focus is on assisting and enabling individuals to develop the capacity to function in all activities (occupations) of daily life, including self-care, work, and leisure. Hence the name occupational therapy.

Occupational therapists work in schools, hospitals, rehabilitation centers, home health agencies, skilled nursing homes, and private practice.

Accreditation Status

WVU's Division of Occupational Therapy has been granted accreditation status by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 4720 Montgomery Lane, Suite 200, Bethesda, M.D. 20814-3449. ACOTE's phone number, c/o AOTA, is (301) 652-AOTA. The OT program at WVU was initially awarded accreditation in 1998 and awarded re-accreditation in 2013. The next scheduled onsite visit for accreditation will be in 2023-2024. ACOTE information may be accessed at www.acoteonline.org (http://www.acoteonline.org).

Graduates of the program are able to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy Inc. (NBCOT). The address for NBCOT is: National Board for Certification in Occupational Therapy, Inc., 12 South Summit Avenue, Suite 100, Gaithersburg, MD 20877-4150. For more information, NBCOT can be contacted at (301) 990-7979 or at http://

www.nbcot.org/. After successful completion of this exam, the individual will be an occupational therapist, registered (OTR). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. Note: A felony conviction may impact a graduate's ability to take the NBCOT examination and/or obtain a state license. For further information on NBCOT's Character Review Program, interested parties can obtain information from the licensing board in that particular state.

Prospective students, applicants, and interested parties can review program data results for the National Board for Certification in Occupational Therapy (NBCOT) exam at: https://secure.nbcot.org/data/schoolstats.aspx

What to Expect

Like many professional programs, the curriculum in the entry-level master's occupational therapy program is fairly fixed and intense. The first professional year, which begins in the summer, will include courses in basic sciences relevant to the profession and practice of occupational therapy along with introductory professional courses. The second and third professional years will deal more specifically with training in occupational therapy theory and practice as administered across a wide variety of settings. The professional curriculum includes two off-campus, full-time clinical experiences known as Level II Fieldwork. Students are financially responsible for transportation, housing, and meal expenses related to clinical assignments. Students in the program are required to participate in the School of Medicine's laptop computer purchase lease-to-own program, which provides each student with a state-of-the-art computer that contains course and program-relevant software.

All OT coursework must be completed with a grade of "C" or higher. Further, OT students must maintain an OT coursework GPA of 3.0 or higher while in the OT Program.

Students in the OT Program must complete all didactic coursework and all fieldwork within a period of five years after commencing the occupational therapy program. Furthermore, all Level II Fieldwork must be completed within eighteen months following completion of academic coursework while remaining within the five-year time frame.

FACULTY
CHAIR
- Randy P. McCombie - Ph.D., OTR/L (Loyola University, Chicago)
  Chair, Program Director, Associate Professor
ASSOCIATE PROFESSORS
- Anne Cronin - Ph.D., OTR/L, FAOTA (University of Florida)
- Steve Wheeler - Ph.D., OTR/L (Virginia Commonwealth University)

ASSISTANT PROFESSORS
- Amanda Acord-Vira - MOT, OTR/L (West Virginia University)
- Amy Burt - MOT, OTR/L (University of Pittsburgh)
- Amy Wix - O.T.D., OTR/L (Chatham University)
  Fieldwork Coordinator
- Brandy Brown - O.T.D., OTR/L (Chatham University)
- Diana Davis - M.A., OTR/L (West Virginia University)
- Donna Colaianni - Ph.D., OTR/L, CHT (Duquesne University)
- Garth Graebe - MOT, OTR/L (West Virginia University)

Admission Standards

Normally, students apply to the program during their second year of college. They must have a minimum of fifty to fifty-five hours of college credit which includes the prerequisites listed previously. Students who already have a degree in another field are also eligible to apply. All applicants must meet the following criteria:

- Minimum GPA of 3.0, including overall GPA and prerequisite GPA, is normally required (a higher GPA may be necessary given the competitive nature of the program).
- Minimum of sixty (60) hours of volunteer experience with at least two licensed occupational therapists (Students should contact the Division of Occupational Therapy to determine the type of experience required. Students should keep a record of dates/hours, locations, and names of supervising occupational therapists. Forms to record volunteer/ shadowing experiences can be found online at http://medicine.hsc.wvu.edu/ot)
- Recommendations are required from two Occupational Therapists who supervised the volunteer/shadowing experience. These OTs must be from 2 different clinical facilities. Specific recommendation forms are available at the time of application within the on-line application packet.
- Completion of all prerequisite courses by the end of the semester of application (normally, second semester of sophomore year) is required. All OT prerequisite courses and WVU GEC courses must be completed by June 1st prior to starting the OT Program.

- *Note: Some OT prerequisite courses have their own course specific prerequisites. For example, physics courses at WVU require that students have completed college algebra and trigonometry. Students must check with those departments for specifics.
- **IMPORTANT NOTE:** Applicants must have completed all but a maximum of 2 OT prerequisite courses by the end of their Fall semester prior to the close of the Spring application period. Those applying to the OT Program will <u>not</u> be considered in the application review process if they are taking more than two OT prerequisite courses in the Spring semester prior to their anticipated start of summer classes in the OT Program. In other words, for those applying to the WVU OT Program, all but a maximum of two OT prerequisite courses must be fully completed by end of the Fall semester. Thus, applicants who are taking three or more OT prerequisite courses in the Spring semester will <u>not</u> be considered for acceptance into the OT Program. Applicants must **plan** on taking <u>no more than two OT prerequisite courses</u> in the Spring semester prior to the summer start of the Program for which they are applying. This requirement does not apply to WVU <u>non-OT</u> prerequisite general education (GEC) course requirements. Note: Courses with a required lab, including those courses that have labs with a separate course number, may be considered one course for purposes of this requirement, i.e., a course plus its lab equal one course. Students are strongly urged to contact the Division of OT for clarification or if they have any questions on this requirement.

Application forms are available online on the program homepage at medicine.hsc.wvu.edu/ot Questions regarding application materials may be directed to The Division of OT at (304) 293-8828 or to the OT Program Academic Advisor at (304) 293-1690. Application materials are traditionally available November 15 through February 15. The deadline for submission of application materials is typically February 15. The official deadline will be posted on the occupational therapy website and printed in the admissions packet.

Course information for the master of occupational therapy degree can be found on the following website: http://medicine.hsc.wvu.edu/ot

Degree Requirements

Minimum grade of C required in all courses.

Minimum GPA of 3.0 required.		
OTH 500	Health Care Issues in Occupational Therapy	3
OTH 501	Management for Occupational Therapy Practice	4
OTH 503	Occupational Therapy in Pediatrics	3
OTH 520	Occupational Therapy in the Work Environment	3
OTH 540	Level 2 Fieldwork 1	6
OTH 550	Education in Occupational Therapy	3
OTH 551	Occupational Therapy in Prevention & Wellness	3
OTH 570	Advanced Theory in Occupational Therapy	3
OTH 594	Seminar	1
OTH 640	Level 2 Fieldwork 2	6
OTH 697	Research (Yr III Fall 2 credits, Spr 2 credits)	4
Total Hours		**39**

PROGRAM TIME FRAME

Students must complete all didactic coursework and Level II Fieldworks within a period of five years after commencing the occupational therapy program. Furthermore, all Level II Fieldwork must be completed within eighteen months following completion of academic coursework while remaining within the five-year time frame.

Pathologists Assistant

pa-info@hsc.wvu.edu

Michelle Costas, MHS, PA (ASCP), *Program Director*

Justin Falcon, MHS, PA (ASCP), *Clinical Coordinator*

Beth Ann McCormick, *Program Specialist*

Degree Offered

- Master of Health Science

The Profession

A pathologists' assistant is a healthcare professional who is qualified through academic and practical training to provide services in anatomic pathology under the direction of a qualified pathologist. Pathologists' assistants serve as physician-extenders in the same manner as physicians' assistants. The addition of pathologists' assistants to the pathology team can reduce cost, increase revenue, and improve workflow in the anatomic pathology lab. In practice, pathologists' assistants (PAs) are responsible for the processing of the surgical pathology specimen from receipt to dissection and description

to submission of tissue to histology. In autopsy practice, the PA is involved in reviewing the medical record of the decedent, evisceration, dissection, and selection of tissue for submission to histology as well as formulation of a preliminary anatomic diagnosis and autopsy report under the direction of a pathologist. Many PAs are involved in laboratory management, teaching at the university-level, training of residents and medical students, forensic investigation, or research.

Nature of Program

The graduate program for pathologists' assistants began in January 2008 and is administered by the School of Medicine. Students are admitted into the Master of Health Science program after earning a baccalaureate degree from a regionally accredited college or university. Students with a cumulative grade point average of 3.25 or higher in the B.S. degree program in Medical Laboratory Science at West Virginia University may be provisionally admitted directly into the pathologists' assistant program at the end of their junior year.

This program is a twenty-four month master's-level program that prepares graduates as allied health professionals for careers as pathologists' assistants. During the second year, the student receives both didactic instruction and practical experience. Students receive practical experience at several of the program's affiliated medical laboratories including the following:

- Ruby Memorial/West Virginia University Hospital and Medical Examiner's Office, Morgantown, WV
- WVU-East, Martinsburg, WV
- Allegheny General Hospital, Pittsburgh, PA
- UPMC Health System including UPMC Presbyterian, UPMC Shadyside and UPMC Children's Hospital, Pittsburgh, PA
- Thomas Memorial Hospital, Charleston, WV
- St. Clair Hospital, PIttsburgh, PA
- Conemaugh Memorial Medical Center, Johnstown, PA
- Butler Health Systeml, Butler, PA
- PathMD, Los Angeles, CA

The WVU pathologists' assistant program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415, (773) 714-8880.

Graduates are eligible for certification by the Board of Certification of the American Society for Clinical Pathology (ASCP).

Pathologists' Assistant Program Essential Functions

In accordance with Section 304 of the 1973 Vocational Rehabilitation Act, the West Virginia University Pathologists' Assistant program has adopted minimum technical standards for assessment of all applicants.

Because the master's degree in health science/pathologists' assistant signifies that the holder has obtained minimum competencies in all areas of the anatomic pathology laboratories, it follows that graduates must have the knowledge and skills to function in a wide variety of laboratory situations and to perform a wide variety of procedures.

1. Candidates for the master's degree in health science/pathologists' assistant must have somatic sensation (sense of touch) and the functional use of the senses of vision and hearing.
2. Candidates' diagnostic skills will also be lessened without the functional use of the sense of equilibrium, smell, and taste.
3. Additionally, they must have sufficient motor function to permit them to carry out the activities described in the sections that follow.
4. They must be able to consistently, quickly, and accurately integrate all information received by whatever sense(s) employed, and they must have the intellectual ability to learn, integrate, analyze, and synthesize data.
5. A candidate for the master's degree in health science/pathologists' assistant must have abilities and skills which include observation, communication, motor, conceptual, integrative, quantitative, behavioral, and social. Technological compensation can be made for some disabilities in certain areas, but a candidate should be able to perform in a reasonably independent manner. The use of a trained intermediary means that a candidate's judgment must be mediated by someone else's power of selection and observation.
6. *Observation*: The candidate must be able to observe demonstrations, procedures, and instruments in the basic sciences and clinical courses. Observation necessitates the functional use of the sense of vision and somatic sensation. It is enhanced by the functional use of the sense of smell.
7. *Communication*: A candidate should be able to speak, hear, and observe people in order to elicit information and perceive nonverbal communications. A candidate must be able to communicate effectively and efficiently in oral and written form with members of the health care team.
8. *Motor*: Candidates should have sufficient motor function to perform laboratory procedures. This action requires the coordination of both gross and fine muscular movements, equilibrium, and functional use of the senses of touch and vision.
9. *Intellectual—conceptual, integrative, and quantitative abilities*: These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem-solving requires all of these intellectual abilities. In addition, the candidate should be able to comprehend three-dimensional relationships and to understand spatial relationships of structures.

10. *Behavioral and Social Attributes*: A candidate must possess the emotional health required for full utilization of his/her judgment, the prompt completion of all responsibilities, and the development of mature, sensitive relationships with patients and coworkers.

Candidates must be able to tolerate physically taxing workloads and to function effectively under stress. They must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that should be assessed during admissions and education process. In its evaluation of applicants to the West Virginia University Pathologists' Assistant program, the Admissions Committee will approach each applicant with the following questions in mind.

When an applicant does not meet a non-academic standard as defined above, and when this would, in the professional judgment of the committee, not satisfy the pathologists' assistant objectives for the student in performing laboratory procedures, education, and research, such opinion will be documented by the Admissions Committee.

The questions are not designed to disqualify an applicant but rather to give the Admissions Committee more complete information about an applicant's ability to meet the following nonacademic standards:

1. Is the candidate able to observe demonstrations and perform procedures in the basic sciences and clinical courses?
2. Is the candidate able to analyze, synthesize, solve problems, and make judgments about results obtained on patient specimens?
3. Does the candidate have sufficient use of the senses of vision, hearing, and somatic sensation necessary to perform the indicated laboratory procedures?
4. Can the candidate reasonably be expected to communicate the results of laboratory tests to other members of the healthcare team with accuracy, clarity, and efficiency?
5. Can the candidate reasonably be expected to learn and perform laboratory tests and operate instruments?
6. Can the candidate reasonably be expected to display good judgment in the analysis of procedure results?
7. Can the candidate reasonably be expected to accept criticism and respond by appropriate modification of behavior?
8. Can the candidate reasonably be expected to possess the perseverance, diligence, and consistency to complete the pathologists' assistant program and to become a practicing pathologists' assistant?

FACULTY

PROGRAM DIRECTOR AND ASSISTANT PROFESSOR

- Michelle M. Costas - MHS, PA(ASCP), Quinnipiac University

MEDICAL DIRECTOR AND PROFESSOR

- Vernard Adams - MD, Tufts University

CLINICAL COORDINATOR

- Justin Falcon - MHS PA(ASCP), West Virginia University

CLINICAL INSTRUCTORS

- Carie Coffindaffer - MHS, PA(ASCP), West Virginia University
- Trevor Wolfe - MHS, PA(ASCP), West Virginia University

Admission to the Pathologists' Assistant Program

All students seeking admission to the Master of Health Science, Pathologists' Assistant program must meet the following admissions requirements:

- Hold an earned baccalaureate degree from a regionally accredited institution of higher education
- Successfully complete the specific prerequisite coursework in mathematics and sciences
- A GPA (cumulative and pre-requisite courses) of at least 3.0 on a 4.0 scale is preferred
- Submit two letters of recommendation (electronic submission only as part of the application process)
- Complete a shadowing experience with a certified PA in Pathology or have equivalent work experience
- Complete an interview with the Admissions Committee
- Submit an electronic admissions packet including the application form, personal statement, essential functions form, shadowing statement, and official transcripts from all colleges and universities attended (Paper admissions application forms are not accepted, except for Direct Admit candidates from the WVU MLS programs.)

REQUIREMENT

Requirement	Description
College Prep	Baccalaureate Degree
Pre-requisite Courses	8 Hr. Biology with laboratory

Pre-requisite Courses	8 Hr. College Chemistry with lab
Pre-requisite Courses	4 Hr. CHEM 231, Organic Chemistry, or Biochemistry with lab or equivalent
Pre-requisite Courses	3 Hr. Microbiology
Grade Point Average preferred	3.0 cumulative
Grade Point Average preferred	3.0 in the pre-requisite courses
Recommendations	Two letters of recommendation
Interview	A personal interview with the Pathologists' Assistant Program Admission Committee

Shadowing or Work Experience

Applicant must complete a shadowing experience with a practicing pathologists' assistant or have applicable work experience in surgical or autopsy pathology. A statement regarding this experience is required in the application packet. Please contact the program director for assistance if necessary.

Admissions Classifications

Students must have a baccalaureate degree prior to beginning the professional sequence. However, the program has established the following admissions classifications:

- Direct Admit: a limited number of students completing the bachelor of science program in medical laboratory science with an emphasis in either clinical laboratory science or histotechnology who have a cumulative GPA of 3.25 may apply to the Master of Health Science, Pathologists' Assistant Program at the end of their junior year. These students will be admitted into the program after completing the B.S. in Medical Laboratory Science at West Virginia University.
- Regular Decision: a student applies in the admission cycle during their senior year.

Typically, applications will be submitted in the application period which extends from January 1 to May 31 of the senior year. Admission is contingent upon satisfactory completion of the baccalaureate degree.

Performance Standards

Students are required to maintain a semester GPA of 3.0 to progress in the first and second year of the professional program.

Application Procedure

Each year, the pathologists' assistant program selects a limited number of students from the applications received for admission. Applications for admission to the program are available between January 1 and May 31 for the class beginning the following January. The application fee is sixty dollars. Each applicant must arrange for transcripts to be sent directly from all undergraduate institutions attended to the Office of Admissions. When the application is complete, the file is sent to the Pathologists' Assistant Admissions Committee. A complete admissions packet contains the following: completed application form and personal statement, official transcripts, two references, and the essential functions form. Please note that the Office of Admissions does not handle reference letters. Each application requires two letters of reference (one from a professor and one from a laboratory professional with whom you have worked). An interview will be granted to qualified applicants after a review of the application packets.

Degree Requirements

FIS 435	Advanced Forensic Photography	3
MICB 702	Microbiology	5
PATH 465	Medical Laboratory Management	2
PATH 603	Pathology and Anatomy	6
PATH 605	Advanced Microanatomy	2
PATH 610	Pathology Assistant Education Methods	1
PATH 620	Clinical Pathology Seminar	2
PATH 625	Anatomical Pathology Techniques	4
PATH 627	Pathology Assistant Practicum 1	9
PATH 628	Pathology Assistant Practicum 2	9
PATH 629	Pathologists' Assistant Practicum 3	7
PATH 630	Pathology Review 1	2
PATH 631	Pathology Review 2	2
PATH 728	General Pathology	5
PSIO 743	Fundamentals of Physiology	5

PATH 801	Mechanisms of Human Disease	11
Total Hours		**75**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
PATH 610	1	PATH 603	6	PATH 801	11
MICB 702	5	PATH 625	4		
PSIO 743	5	PATH 728	5		
PATH 620	2	FIS 493B	3		
PATH 465	2				
PATH 605	2				
	17		**18**		**11**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
PATH 629	7	PATH 627	9	PATH 628	9
PATH 631	2	PATH 630	2		
	9		**11**		**9**

Total credit hours: 75

GRADUATION REQUIREMENTS

Students are required to maintain an overall GPA of at least 3.0 as a graduate student while enrolled in the pathologists' assistant program. A minimum 3.0 GPA is required to graduate from the program.

Physical Therapy

Degree Offered

- Doctor of Physical Therapy (D.P.T.)

Nature of Program

The WVU Division of Physical Therapy was established in 1970 under the auspices of the School of Medicine to help meet the need for physical therapists in West Virginia. The program became an entry-level doctoral degree program in Fall 2005. The program is accredited by the Commission on Accreditation in Physical Therapy Education, a specialized body recognized by the Council on Postsecondary Accreditation. The most recent accreditation was awarded in November of 2011 for ten years. Forty full-time students are admitted in a typical annual admissions cycle. Preference is given to West Virginia residents and non-residents who have attended a West Virginia college or university or who have ties to West Virginia. All other non-residents who meet program requirements will also be considered for admission.

Students admitted into the program complete three years of combined classroom, laboratory, and clinical education, and part-time and full-time supervised clinical practice in various clinics in West Virginia and other states. A doctor of physical therapy (D.P.T.) degree is awarded upon completion of the program which entitles the graduate to apply for examination for state licensure. A license to practice physical therapy is required by all states.

The Profession of Physical Therapy

Physical therapy is a hands-on health care profession that promotes optimal health and function through the application of scientific principles to prevent, identify, assess, correct, or alleviate acute or prolonged movement dysfunction. The goal of physical therapy is to help individuals fully participate in all societal roles according to their capabilities.

Demand for physical therapy services is expected to continue over the next ten years. The demand for physical therapists in all practice settings is affected by such factors as an aging population and increased emphasis on a healthy, active lifestyle. The professional organization represents therapists on healthcare issues and is working hard to assure that physical therapy will continue to be a favorable career choice.

Physical therapists are respected members of the healthcare team. They work with other healthcare providers such as physicians, occupational therapists, rehabilitation nurses, psychologists, social workers, dentists, podiatrists, speech pathologists and audiologists. Physical therapists work in hospitals, private physical therapy offices, community health centers, corporate or industrial health centers, sports facilities, research institutions, rehabilitation centers, nursing homes, home health agencies, schools, pediatric centers, and colleges and universities.

Some physical therapists work as employees in these settings, while others are self-employed as owners or partners in private practices. Settings, employment arrangements, career responsibilities, and career opportunities depend on the interests and skills of each practitioner.

FACULTY

CHAIR

- MaryBeth Mandich - Ph.D. (West Virginia University)
  Neuroscience, Pediatric Physical Therapy

PROFESSORS

- John J. Petronis - M.S. (West Virginia University)
  Orthopedic Physical Therapy [Emeritus Faculty]
- Bill Stauber - Ph.D. (Rutgers University)
  Electrotherapy, Muscle Physiology
- Anne Swisher - CCS, Ph.D. (West Virginia University)
  Cardiopulmonary Physical Therapy, Oncology[Director of Faculty Development & Scholarship]
- Duane Scott Davis - OCS, Ed.D. (West Virginia University)
  Orthopedic and Sports Physical Therapy [Director of Professional Education]

ASSOCIATE PROFESSORS

- Mia Erickson - CHT, Ed.D. (West Virginia University)
  Education, Professional Roles, Hand Therapy [Academic Coordinator of Clinical Education]
- Corrie Mancinelli - GCS, Ph.D. (West Virginia University)
  Anatomy and Orthopedic Physical Therapy
- Ralph Utzman - PhD [Virginia Commonwealth University]
  Health Policy, Professional Roles [Academic Coordinator of Clinical Education]
- Dina Jones - Ph.D. (University of Pittsburgh)
  Public Health, Arthritic Disease

ASSISTANT PROFESSORS

- Kimeran Evans - D.P.T. (Virginia Commonwealth University)
  Clinical Education, General Physical Therapy Practice
- Valeriya Gritsenko - Ph.D. (University of Alberta, Edmonton, AB, Canada)
  Neurosciences, Motor Control
- Teresa Rice - NCS, MPH. (West Virginia University)
  Neurorehabilitation
- Krystal Thomas-Whetsel - WHCS, DPT [Chatham University]
  Women's Health Physical Therapy
- Carol Waggy - CHT, Ph.D. (West Virginia University)
  Anatomy and Hand Physical Therapy
- Michael Timko - MS
  Orthopedic and Manual Therapy

The Admissions Process

Courses recommended for high school students in preparation for the preparatory and professional physical therapy program include, but are not limited to, biological sciences (e.g. anatomy, advanced biology, physiology, etc.), chemistry, algebra/trigonometry and/or pre-calculus, physics, and social sciences. Computer literacy is highly recommended.

Because individualized instruction in laboratories and clinics is an essential component of the professional physical therapy program, enrollment must be limited. The physical therapy program selects forty students per year for entrance into the professional phase of the program. All students who wish to enter the program must apply for admission, must have a bachelor's degree, and have completed or be enrolled in the prerequisite coursework detailed below. These courses are available at most colleges.

The following requirements must be met to apply to the WVU Division of Physical Therapy:

- Applicant must have a minimum **cumulative GPA of 3.0**. Applicant must have a minimum **prerequisite science GPA of 3.0** which includes two general biology courses, two chemistry courses, two physics courses, statistics, anatomy, and human physiology.

- Applicants must have a minimum of **sixty hours of clinical volunteer** or work experience obtained from two different physical therapy settings. Though these hours may be obtained during high school and college, some volunteer hours obtained during the junior or senior college years is strongly recommended.
- Applicants must submit **three letters of recommendation**. Two letters must be from physical therapists with whom the student has worked or volunteered. These letters must be from licensed physical therapists; the Admissions Committee will not consider letters from non-physical therapists or relatives. The third letter must be from a professor in their undergraduate major.

The form for the letters of recommendation is available with the electronic application.

- Applicant must take the Graduate Record Examination (GRE). No minimum score is required. Please note the **Institution Code** for reporting is **7639**, which is different from the code used for other programs at WVU. Using this code will result in your official scores being sent to PTCAS, who will verify your scores and send them to WVUPT.
- Applicant must have a **minimum grade of C** in each prerequisite course.
- Applicant must have completed or be enrolled in the required courses listed below:

Pre-requisite Courses	WVU Course Number
Biology with lab (8 hours)	BIOL101/103, 102/104
Chemistry with lab (8 hours)	CHEM 115, 116
Physics with lab (8 hours)	PHYS 101, 102
General psychology (3 hours)	PSYC 101
Developmental psychology (3 hours), should include development across the human lifespan	PSYC 241
Introductory statistics (3 hours), must include descriptive and inferential statistics	STAT 211 or ECON 225
Human anatomy (3 hours)*	ATTR 219 (recommended) or NBAN 205
Human physiology (3 hours)**	PSIO 241 or PSIO 441

*   The anatomy courses included in the DPT curriculum are extremely rigorous. Students should seek out the highest level anatomy course(s) available. The minimum prerequisite is a three-credit-hour course in human anatomy, ideally with a laboratory. A two semester, eight-credit sequence of combined human anatomy and physiology may be accepted; however, comparative and animal anatomy does not count towards this pre-requisite.

**   Human physiology course with laboratory is preferred. A two-semester, eight-credit sequence of combined human anatomy and physiology may be accepted; however, animal or biology will not count towards this pre-requisite.

It is recommended that prerequisite courses in human anatomy and human physiology be completed within two years prior to admission.

WVU maintains an online Course Equivalency System (CES) (http://admissions.wvu.edu/admissions/university-requirements/transfer_equivalency) that lists course equivalencies at many institutions in the state/region.

Applicants who complete any of their prerequisites outside of WVU should check the CES to see if each prerequisite course transfers directly to WVU as the required WVU course. If your undergraduate institution is not listed in the CES, or if you have taken prerequisite courses that transfer in as open credit or not equivalent, you must submit a photocopy of the catalog description of the courses in question. Upon receiving your application, the Admissions Committee may request that you submit a copy of the course syllabus for further review.

Baccalaureate Preparation

Applicants must have earned a baccalaureate degree or plan on completing a baccalaureate degree by May of the year of entering the program. Students may apply with a number of different baccalaureate degrees; however, they must complete the prerequisites for the physical therapy program as described no later than the spring semester of the year of application.

Students who want careers in healthcare may find that physical therapy fulfills their goals. A recommended baccalaureate preparation is in the field of exercise physiology. At WVU, exercise physiology majors will be able to obtain all of the prerequisites listed above during their course of study. Another common baccalaureate major may be biology. As discussed above, these are merely suggestions and students can apply from any institution of higher education with any degree background as long as they meet the aforementioned prerequisites.

Additional Information and Updates

For updates, be sure to periodically check the WVU Division of Physical Therapy website at http://www.hsc.wvu.edu/som/pt. You may also contact the Program Manager for the Physical Therapy Program, Brenda Wolfe, at bwolfe@hsc.wvu.edu.

Applications

The physical therapy program participates in the national electronic physical therapy standard application system, known as PTCAS (Physical Therapist Centralized Application Service). The website for PTCAS is http://www.ptcas.org. Typically, PTCAS opens for applications in mid-July. Well qualified applicants who consider WVU their first choice professional DPT program can apply for early decision through PTCAS in late summer. They would be notified of acceptance in September and if they accept a place in the class the decision is binding and the student cannot consider offers from other programs. The deadline for all other applications is December 1st of the year before entry. Applicants should receive initial communication regarding their application within thirty-five days of the deadline. Please check the program website frequently for any updates on deadlines or the admissions process. These are often adjusted on an annual basis.

Physical Therapy (PT)

Course information for the doctor of physical therapy degree can be found on the following website: http://www.hsc.wvu.edu/som/pt.

PHYSICAL THERAPY CURRICULUM

Note: This is subject to change without notice.

PT 705	Intro to Evidence Based Physical Therapy	2
PT 706	Advanced Clinical Anatomy	5
PT 711	Professional Roles 1	3
PT 713	Lifespan Functional Movement	2
PT 714	Clinical Sciences 1	4
PT 715	Evidence Based Physical Therapy 1	2
PT 716	Kinesiologic Foundations	4
PT 718	Evaluation Procedures	3
PT 720	Clinical Education 1	1
PT 723	Developmental Life Tasks	3
PT 724	Exercise Foundations	3
PT 725	Evidence-Based Physical Therapy 2	3
PT 727	Neurobiologic Foundations	4
PT 728	Physical Therapy Procedures 1	4
PT 730	Clinical Education Symposium 1	1
PT 732	Physical Therapeutic Agents 1	2
PT 733	Cardiopulmonary PT	3
PT 734	Clinical Sciences 2	2
PT 738	Physical Therapy Procedures 2	3
PT 740	Clinical Education 2	1
PT 741	Professional Roles 2	4
PT 742	Physical Therapy Agents 2	2
PT 743	Geriatric Physical Therapy 1	2
PT 744	Clinical Sciences 3	2
PT 745	Evidence Based Physical Therapy 3	2
PT 746	Orthopedic Physical Therapy 1	5
PT 754	Clinical Sciences 4	3
PT 755	Evidence Based Physical Therapy 4	2
PT 756	Orthopedic Physical Therapy 2	3
PT 757	Neurologic Physical Therapy 1	3
Clinical Education 3 (Repeated)		8
PT 760	Clinical Education 3	
PT 761	Professional Roles 3	3
PT 762	Health Care Issues in Physical Therapy	2
PT 763	Pediatric Physical Therapy	3
PT 765	Evidence-Based Physical Therapy 5	1
PT 767	Neurologic Physical Therapy 2	2
PT 768	Prosthetics and Orthotics 1	3

PT 770	Clinical Education Symposium 3	2
PT 771	Survey of Niche Physical Therapy Practice	2
PT 780	Clinical Education 4	8
PT 797	Research	4-15
Total Hours		**121-132**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
PT 705 (Pre-Fall)[*]	2	PT 724	3	PT 725	3
PT 706 (Pre-Fall)[*]	5	PT 720	1	PT 730	1
PT 711	3	PT 723	3	PT 732	2
PT 713	2	PT 727	4	PT 733	3
PT 714	4	PT 728	4	PT 734	2
PT 715	2	PT 738	3	PT 742	2
PT 716	4				
PT 718	3				
	25		**18**		**13**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
PT 740	1	PT 754	3	PT 760	2,6
PT 741	4	PT 755	2		
PT 743	2	PT 756	3		
PT 744	2	PT 757	3		
PT 745	2	PT 797	2		
PT 746	5				
	16		**13**		**2-6**

Third Year

Fall	Hours	Spring	Hours
PT 797	2	PT 770	2
PT 761	3	PT 780	8
PT 762	2		
PT 763	3		
PT 765	1		
PT 767	2		
PT 768	3		
PT 771	2		
	18		**10**

Total credit hours: 115-119

[*]   The professional curriculum begins in summer before first year. Students should plan for these courses to begin on or around June 1st.

School of Nursing

Degrees Offered

- Bachelor of Science in Nursing
- Master of Science in Nursing
- Doctor of Nursing Practice
- Doctor of Philosophy in Nursing

Introduction

The mission of the WVU School of Nursing is to lead in improving health in West Virginia and broader society through excellence in student-centered educational programs, research and scholarship, the compassionate practice of nursing, and service to the public and the profession. This mission is responsive to changing healthcare needs and emerging national and state changes in technology and healthcare delivery and is enhanced by a supportive and open environment. The faculty's educational effort is directed at providing high quality, student-centered programs of instruction at all levels which prepare superb professional nurses to meet basic healthcare needs; advance practiced nurses to address complex health needs; and enable doctorally educated nurses to advance nursing knowledge through research, to assist in the formulation of policies to improve health care, and to serve as faculty in higher degree programs. Unique characteristics of the state mandate that the healthcare needs of rural populations and vulnerable groups be a major focus of education, research, and service, including faculty practice.

The School of Nursing offers undergraduate, graduate, and post-master's programs of study. The baccalaureate program (BSN) is available for high school graduates who aspire to a career in nursing (basic students) and to registered nurses (RN) who are licensed graduates of associate degree or diploma nursing programs seeking to continue their career development. In addition, a BS/BA to BSN program is available for the college graduate seeking a BSN.

The master of science in nursing (MSN) prepares graduates for advanced practice roles in rural primary health care. These roles include family nurse practitioner, pediatric nurse practitioner, neonatal nurse practitioner, geriatric nurse practitioner, women's health nurse practitioner, and nursing leadership.

Post-graduate nurse practitioner certification programs in these role specialties are available for those who already have an MSN. The RN to MSN. program also has these role specialties available.

The doctor of nursing practice (DNP) prepares advanced practice nurses who will practice at the highest level of professional nursing and will advance the application of nursing knowledge for the purpose of improving healthcare for diverse populations.

The doctor of philosophy in nursing (PhD) prepares nurse scholars/scientists for roles in research, teaching and service. The program prepares graduates who will contribute to the body of nursing knowledge, educate the next generation, and lead, ultimately impacting health policy, improving health, and reducing disparity.

Accreditation

Initial accreditation was received with graduation of the first class in 1964. The baccalaureate program in nursing is fully accredited by the Commission on Collegiate Nursing Education, a national accrediting agency.

Fees, Expenses, Housing, Transportation, and Immunization

Students enrolling at the Morgantown campus pay fees which are detailed at http://admissions.wvu.edu/pay. Special fees and deposits are also required. Students enrolling at other sites pay the fees shown in the catalog for that site. Fees are subject to change without notice. Students' expenses vary according to the course of study and individual needs. Information concerning financial assistance, application forms, and the Free Application for Federal Student Aid (FAFSA) form may be obtained from the financial aid website at http://financialaid.wvu.edu/home/hsc-office or by contacting the HSC Financial Aid Office, PO Box 9810, Morgantown, WV 26506-9810; telephone (304) 293-3706 (toll free) or 1-800-344-WVU1.

The University Housing and Residence Life Office, telephone (304) 293-4491, provides information concerning university-owned housing. The Student Life Office in E. Moore Hall, telephone (304) 293-5611, provides information concerning privately owned, off-campus housing.

Students are expected to provide their own transportation, equipment, and instruments for the clinical courses. Some clinical experiences require travel in a multi-county area.

Proof of specific immunizations is required for all health sciences students. Students in the master of science in nursing program must undergo a criminal background check prior to clinical courses. Felony convictions and serious misdemeanors may preclude participation in the clinical courses. This could, in turn, prevent the completion of course requirements and completion of the nursing program.

Scholarships

The School of Nursing offers several scholarships. These scholarships are administered by the Health Science Center Financial Aid Office and require completion of the Free Application for Federal Student Aid (FAFSA) form in order to be considered for financial aid. Most School of Nursing scholarships are available only to students already admitted to the School of Nursing and are awarded each April for the following academic year. However, there are a limited number of scholarships for which students may apply before admission. Further information is provided on the School of Nursing website: http://nursing.hsc.wvu.edu/academics/current-students/.

Additional Information

Visit the School of Nursing website at http://nursing.hsc.wvu.edu/. Call the WVU school of Nursing Office of Student Services at 1-866-WVUNURS or (304) 293-1386. Write to WVU School of Nursing at PO Box 9600, Morgantown, WV 26506-9600

ADMINISTRATION
DEAN
- Tara F. Hulsey - Ph.D., RN, CNE, FAAN (University of South Carolina)
  Professor

ASSOCIATE DEAN FOR ACADEMICS
- Elisabeth Shelton - Ph.D. (Widener University)
  Associate Professor

ASSISTANT DEAN FOR STUDENT AND ALUMNI AFFAIRS
- Misti Woldemikael - M.B.A. (Wheeling Jesuit University)

DIRECTOR AND ASSISTANT DEAN OF BUSINESS & FINANCE
- Karis P. Wolfe - MBA (West Virginia University)

CHAIR-DEPARTMENT OF ADULT HEALTH
- Mary Jane Smith - Ph.D. (University of New York)
  Professor

CHAIR, DEPARTMENT OF FAMILY/COMMUNITY HEALTH
- Susan Newfield - Ph.D. (University of Texas)
  Associate Professor

CHAIR-CHARLESTON DIVISION
- Alvita Nathaniel - Ph.D. (West Virginia University)

CHAIR-WVU TECH DEPARTMENT
- Evelyn Klocke - Ed.D. (Marshall University

FACULTY
PROFESSORS
- K. Joy Buck - Ph.D. (University of Virginia)
- Ilana Chertok - Ph.D. (Ben-Gurion University of the Negev)
- Joanne Duffy - Ph.D. (Catholic University of America)
- Georgia Narsavage - Ph.D. (University of Pennsylvania)
- Mary Jane Smith - Ph.D. (University of New York)

ASSOCIATE PROFESSORS
- Pamela Deiriggi - Ph.D. (University of Texas)
  Coordinator PNP Track
- Alvita Nathaniel - Ph.D., RNC, FNP (West Virginia University)
  Chair, Charleston Division
- Susan Newfield - Ph.D. (University of Texas)
  Chair, Dept. of Family/Community Health
- Kari Sand-Jecklin - Ed.D. (West Virginia University)
- Elisabeth Shelton - Ph.D. (Widener University)
  Associate Dean of Academics

- Laurie Theeke - Ph.D. (West Virginia University)

ASSISTANT PROFESSORS

- Taura Barr - Ph.D. (University of Pittsburgh)
- Susan Coyle - Ph.D. (West Virginia University)
- Stacey Culp - Ph.D. (University of Michigan)
  Research
- Jennifer Mallow - Ph.D. (West Virginia University)
- Dottie Oakes - M.S.N. (Duke University)
  Director - Clinical Services
- Susan Pinto - M.S.N. (West Virginia University)
- Aletha Rowlands - Ph.D. (University of Virginia)
- Gail O'Malley Van Voorhis - M.S.N. (West Virginia University)
  Director - LRC

CLINICAL ASSOCIATE PROFESSOR

- Emily Brinker Barnes - DNP (West Virginia University)

CLINICAL ASSISTANT PROFESSORS

- Roger Carpenter - Ph.D. (West Virginia University)
- Lori Constantine - DNP (West Virginia University)
- Sanda Cotton - DNP, APRN, ANP-BC, FNAP (West Virginia University)
- Daniel J. Defeo - M.S.N. (West Virginia University)
- Gina Maiocco - Ph.D. (University of Utah)
- Elizabeth A. Minchau - M.S.N. (University of Pittsburgh)
- Billie Murray - M.S.N. (West Virginia University)
- Judith Polak - DNP (West Virginia University)
  Coordinator NNP Track
- Martha Summers - DNP (West Virginia University)
- Suzy Walter - Ph.D. (West Virginia University)

SENIOR LECTURER

- Tina Antill-Keener - Ph.D. (West Virginia Universtiy)
- Dana Friend - M.P.H. (West Virginia University)
- Kathy Linkous - M.S.N. (Bellarmine College)
- Patricia Joyce Maramba - DNP (West Virginia University)
- Diana L. McCarty - M.S.N. (West Virginia University)
- Joanne E. Watson - M.S.N. (University of Virginia)

LECTURERS

- Monique Bandy - MSN (Waynesburg University)
- Christy Barnhart - MSN (Waynesburg University)
- Debbie Bellisario - B.S.N. (West Virginia University)
- Pearl Bingham - MSN (Norwich University)
- Rebecca Kromar - ND (Case Western Reserve University)
- Terri L. Marcischak - M.S.N. (West Virginia University)
- Amy Miner - M.S.N. (Waynesburg University)
- Christine Mott - M.S.N. (West Virginia University)
- Tonya Payerchin - M.S.N. (Waynesburg University)
- Trisha Petitte - M.S.N. (West Virginia University)
- Stacey Pierce - M.S.N. (Marshall University)
- Melissa Teets - MSN (Wheeling Jesuit University)
- Kara Terhune - M.S.N. (Wilkes University)
- Kimberly Wallace - B.S.N. (West Virginia University)

- Ashley Wilson - M.S.N. (West Virginia University)

CLINICAL INSTRUCTORS

- Kendra Barker - MSN (West Virginia University)
- Dennelle Parker - M.S.N. (West Virginia University)
- Angel Smothers - M.S.N. (West Virginia University)
- Barbara Summers - M.S.N. (Marshall University)

VISITING CLINICAL ASSISTANT PROFESSOR

- Carolyn Donovan - M.S.N. (West Virginia University)

CHARLESSTON DIVISION PROFESSOR

- Alvita Nathaniel - Ph.D. (West Virginia University)

CHARLESTON DIVISION-CLINICAL PROFESSOR

- Marilyn Smith - Ph.D. (University of Tennessee)

CHARLESTON DIVISION-CLINICAL ASSISTANT PROFESSOR

- Jarena Kelly - DNP (West Virginia University)
- Sheila Stephens - DNP (University of Kentucky)

CHARLESTON DIVISION-SENIOR LECTURER

- Kristina Childers - M.S.N. (Marshall University)
- Crystal Sheaves - M.S.N. (West Virginia University)

CHARLESTON DIVISION-LECTURER

- Nancy Atkins - M.S.N. (Bellarmine College)
- Barbara Koster - M.S.N. (West Virginia University)
- Evelyn Martin - M.S.N. (Marshall University)
- Teresa Ritchie - DNP (West Virginia University)

COORDINATOR-GSC/WVU JOINT NURSING PROGRAM

- Alison Witte - M.S. (University of South Africa)
  Glenville State College, Assistant Professor

WVU TECH DIVISION-ASSISTANT PROFESSOR

- Peggy Fink - M.S.N. (West Virginia University)
- Evelyn Klocke - Ed.D. (Marshall University)
  Chair - Department of Nursing
- Melanie Whelan - M.S.N. (West Virginia University)

WVU TECH DIVISION-SENIOR LECTURER

- Barbara Douglas - M.S.N. (Wright State University)
- Mindy Harris - M.S.N. (Marshall University)
- Robin Spencer - M.S.N. (Marshall University)

WVU TECH DIVISION-LECTURER

- Kelli Kirk - M.S.N. (Mountain State University)
- James Messer - M.S.N. (University of Phoenix)
- Amy Bruce - M.S.N. (Marshall University)
- Melinda Stoecklin - M.S.N. (Marshall University)

DEAN EMERITUS

- Lorita Jenab - Ed.D. (Columbia University)
- E. Jane Martin - Ph.D. (University of Pittsburgh)

PROFESSOR EMERITUS

- June Larrabee - Ph.D. (University of Tennessee)

- Nan Leslie - Ph.D. (University of Utah)
- Gaynelle McKinney - M.S.N. ED (Indiana University)
- Barbara Nunley - Ph.D. (University of Kentucky)

ASSOCIATE PROFESSOR EMERITUS

- Peggy Burkhardt - Ph.D. (University of Miami)
  Charleston Division
- Imogene P. Foster - Ed.D. (West Virginia University)
- Debra Harr - Ed.D. (West Virginia University)
- Jean Hoff - M.P.H. (University of Pittsburgh)
- Nancy A. Koontz - M.S.N. (University of Maryland)
- Lois O'Kelley - M.S.N. (Wayne State University)
- C. Lynn Ostrow - Ed.D. (West Virginia University)
- Jacqueline Riley - M.N. (University of Florida)
- Jane A. Shrewsbury - M.N. ED (University of Pittsburgh)
- Patricia Simoni - Ed.D. (West Virginia University)
- Jacqueline Stemple - Ed.D. (West Virginia University)
- Fredona Stenger - M.S.N. (Boston University)

ASSISTANT PROFESSOR EMERITUS

- Ann Cleveland - Ed.D. (West Virginia University)
- Suzanne Gross - Ph.D. (University of Texas)
- Dorothy Johnson - Ed.D. (West Virginia Universtiy)
- Kathleen Marsland - M.S. (University of Colorado)

Degree Designation Learning Goals

MASTER OF SCIENCE IN NURSING (MSN)

Upon successful completion of the MSN program, the MSN graduate will:

1. Synthesize theories, research findings, and broad-based perspectives for application in the advanced practice of nursing or nursing leadership.
2. Utilize systematic inquiry and refined analytical skills in the provision of health care services and leadership.
3. Create a relationship with clients and healthcare organizations that builds and maintains a supportive and caring partnership.
4. Articulate viewpoints and positions in order to improve the quality of health care delivery and outcomes of successful care.
5. Consult and collaborate in interdisciplinary and interagency endeavors to advance culturally sensitive health care to clients, families, groups, and communities.
6. Integrate prior and current learning as a basis for growth and accountability in enacting the role of advanced practice nurse or nurse leader.

DOCTOR OF NURSING PRACTICE (DNP)

Upon successful completion of the DNP program, the DNP graduate will:

1. Use science-based theories and concepts to:
   - Determine the nature and significance of health and health care delivery phenomena.
   - Describe actions and advance strategies to improve health care delivery, and develop, deliver, and evaluate theory-based health care.
   - Demonstrate organizational and systems leadership that emphasizes the primacy of clinical work, continually improving health outcomes, and ensuring patient safety.
2. Use analytical methods and research to develop best practices and practice guidelines and to facilitate the evaluation of systems of care that will improve patient outcomes.
3. Use information systems and technology-based resources that support clinical and administrative decision making, care systems, nurse-sensitive outcomes, and quality improvement.
4. Assume a leadership role in the development of healthcare policy.
5. Establish, participate, and lead inter-professional teams.
6. Utilize a strong conceptual foundation in clinical prevention and population health.
7. Base practice on biophysical, psychosocial, sociopolitical, cultural, economic, and nursing science and ethics.
8. Develop, implement, and evaluate practice and care delivery models, which are politically and culturally appropriate.

DOCTOR OF PHILOSOPHY (PHD)

Upon successful completion of the PhD program, the PhD graduate will:

1. Rigorously test, generate, and extend knowledge to inform nursing science, practice, and policy.
2. Contribute to the development of knowledge and interventions to address health disparity and promote or improve health.
3. Assume collaborative leadership roles in academia, healthcare organizations, research teams, and scholarly networks.
4. Demonstrate expertise within an area of study that incorporates nursing and transdisciplinary perspectives.

Doctor of Nursing Practice Online Program

Program Description

The School of Nursing offers a program of study leading to the doctor of nursing practice (DNP) degree. Courses are offered via web-based modalities in real time. Courses are scheduled in the late afternoon at times convenient for working students and may require that students attend special sessions in Morgantown or Charleston. Dates of the special sessions are made available in advance so that students can plan their schedules in order to attend.

The DNP program offers a curriculum that allows students to enroll on a part-time basis. Graduate students are strongly recommended to limit their credit load if they are also involved in full-time work. Students employed in full-time work should enroll for no more than six hours of doctoral level coursework in any one term. Throughout the curriculum, students are guided in the processes of self-development aimed at pursuing excellence in scholarly and professional endeavors.

At the completion of the program, the Doctor of Nursing Practice (DNP) graduate will be able to practice at the highest professional level to:

1. Use science-based theories and concepts to:
   a. Determine the nature and significance of health and healthcare delivery phenomena
   b. Describe actions and advance strategies to improve healthcare delivery
   c. Develop, deliver, and evaluate theory-based healthcare
2. Demonstrate organizational and systems leadership that emphasizes the primacy of clinical work, continually improving health outcomes, and ensuring patient safety
3. Use analytical methods and research to develop best practices and practice guidelines and to facilitate the evaluation of systems of care that will improve patient outcomes
4. Use information systems and technology-based resources that support clinical and administrative decision-making, care systems, nurse-sensitive outcomes, and quality improvement
5. Assume a leadership role in the development of healthcare policy
6. Establish, participate, and lead interprofessional teams
7. Utilize a strong conceptual foundation in clinical prevention and population health
8. Base practice on biophysical, psychosocial, sociopolitical, cultural, economic, and nursing science and ethics
9. Develop, implement, and evaluate practice and care delivery models, which are politically and culturally appropriate

Admissions Criteria

1. Satisfy WVU requirements for admission to graduate study
2. Have a cumulative grade-point average of 3.0 or higher on a 4.0 scale on the MSN degree
3. Have a current, unrestricted RN license in at least one state
4. Hold the degree of master of science in nursing from a school of nursing program accredited by CCNE or NLNAC
5. Hold advanced practice certification in an area recognized for announcement of Advanced Practice by the WV Board of Examiners for Registered Professional Nurses
6. A competitive **G**raduate **R**ecord **E**xam (GRE) Competitive GRE scores in previous years have included**:**
   PRIOR TO August, 2011: a minimum score of 400 each on the verbal and quantitative, a total of the two sections of 1000, and an analytical writing score of 4.0.
   AFTER August, 2011: a minimum score of 150 on the verbal section, 142 on the quantitative section, a total of the two sections of 300, and an analytical writing score of 4.0.)
7. Meet program pre-requisites including transcripted courses equivalent to WVU courses in:
   • Advanced Pathophysiology
   • Advanced Pharmacotherapeutics
   • Advanced Health Assessment
   • Research Process

Note: Admission criteria are subject to change. Please see the School of Nursing website for the most up-to-date criteria at http://nursing.hsc.wvu.edu.

Application Process

The application process should be completed by February 1. The beginning sequence of courses in the DNP program starts in the summer semester only. Applicants to the DNP program need to complete the following steps in order to be considered for admission:

Complete two application forms as indicated below and return to the appropriate offices by the deadline.

1. Application for Admission to Graduate Studies (available at: https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantConnectLogin.asp?id=wvugrad)
2. Supplemental Application for admission to DNP in the School of Nursing and DNP application checklist (available on the School of Nursing website at: http://nursing.hsc.wvu.edu/pages/Academic-Programs/Doctor-of-Nursing-Practice/DNP-Supplemental-Application) submitted electronically
3. Request an official transcript of records from each college or university attended. Transcripts should be sent directly to WVU Health Science Center, Office of Admissions,
P.O. Box 9815, Morgantown, WV 26506-9815.
4. Three letters of reference should address the applicant's expertise in the advanced practice of nursing and likelihood for success in doctoral work. One letter should be from a former professor of the applicant.
5. Submit a current curriculum vitae and evidence of national certification.
6. Submit GRE scores.
7. Submit a writing sample answering the following question: Identify a clinical practice problem of interest to you. How can the Essentials of Doctoral Education for Advanced Nursing Practice prepare you to address this clinical problem? Please limit your sample to two type-written, double-spaced pages.

For more information, visit the website at http://nursing.hsc.wvu.edu, write to West Virginia University School of Nursing, P.O. Box 9600, Morgantown, WV 26506-9600; or call (304) 293-1386.

Note: Application criteria are subject to change. Please see the School of Nursing website for the most up-to-date criteria at http://nursing.hsc.wvu.edu.

Doctor of Nursing Practice Requirements

NSG 702	Population Health Promotion	3
NSG 703	Theory of Practice	3
NSG 704	Health Care Leadership	3
NSG 707	Evidence Based Practice	3
NSG 708	Doctor of Nursing Practice Role Seminar	2
NSG 709	Health Care Informatics	3
NSG 710	Health Policy and Resource Management	3
NSG 711	Health Care Focus	3
NSG 713	Doctor of Nursing Practice Role Application	1
NSG 724	Health Research Statistics 1	3
NSG 745	Clinical Immersion	4-8
NSG 760	Doctor of Nursing Practice Clinical Project	3
NSG 763	Doctor of Nursing Practice Capstone	6
Total Hours		**40-44**

SUGGESTED PLAN OF STUDY

First Semester	Hours
NSG 708	2
	2

Second Semester	Hours
NSG 702	3
NSG 724	3
	6

Third Semester	Hours
NSG 707	3

NSG 703	3
	6
Fourth Semester	**Hours**
NSG 709	3
NSG 711	3
	6
Fifth Semester	**Hours**
NSG 704	3
NSG 710	3
	6
Sixth Semester	**Hours**
NSG 760	3
NSG 763[*]	1
	4
Seventh Semester	**Hours**
NSG 745	4-8
NSG 763[*]	1-6
	5-14
Eighth Semester	**Hours**
NSG 745	4-8
NSG 763[*]	1-6
NSG 713	1
	6-15

Total credit hours: 41-59

[*]   Must total a minimum of 6 credits by the completion of the program.

Doctor of Philosophy

The purpose of the Ph.D. program is to prepare nurse scholars/scientists for roles in research, teaching, and service. The program prepares graduates who will contribute to the body of nursing knowledge, educate the next generation, and assume collaborative leadership roles in shaping health policy, improving health, and reducing disparity.

The goals of the program are to prepare graduates who will:

1. Rigorously test, generate, and extend knowledge to inform nursing science, practice, and policy.
2. Contribute to the development of knowledge and interventions to address health disparity and promote or improve health.
3. Assume collaborative leadership roles in academia, health organizations, research teams, and scholarly networks.
4. Demonstrate expertise within an area of study that incorporates nursing and trans disciplinary perspectives.

Visit the School of Nursing website at http://nursing.hsc.wvu.edu/. Call the WVU school of Nursing Office of Student Services at 1-866-WVUNURS or (304) 293-1386. Write to WVU School of Nursing at PO Box 9600, Morgantown, WV 26506-9600

Admission Criteria

1. Transcript of a nursing degree at the baccalaureate level or higher from a nationally accredited nursing program or equivalent.
2. Evidence of current license to practice nursing in the United States or home country.
3. Transcript of master's coursework from an accredited program.
4. A grade of B or higher in graduate-level statistics and research courses.
5. Cumulative GPA of 3.0 in master's degree work.
6. Competitive achievement on the GRE within the past five years:
   - For GRE scores earned prior to August 2011: a minimum score of 400 each on the verbal and quantitative sections, a total of the two section scores of at least 1000, and an analytical writing score of 4.0.
   - For GRE scores earned after August 2011: a minimum score of 150 on the verbal section, a minimum score of 142 on the quantitative section, a total of the two section scores of at least 300, and an analytical writing score of 4.0.
7. Examples of scholarly work. This can be a paper from master's work, a submitted article, or some other professional writing.

8. Interview to determine congruence between the applicant's career goals and program objectives and between the applicant's research interests and those of the faculty.

Note: Admission criteria are subject to change. Please see the School of Nursing website for the most up-to-date criteria at http://nursing.hsc.wvu.edu/.

Application Process

The application process is on a rolling basis. The beginning sequence of courses in the PhD in nursing program starts in the summer semester only. Class size and progression plans may be limited based on available faculty resources and space. Applicants to the PhD in nursing program need to complete the following steps in order to be considered for admission:

1. Complete two application forms as indicated below and return to the appropriate offices by the deadline
   - Application for Admission to Graduate Studies (available at:http://apply.wvu.edu/)
   - Supplemental Application of Admission to PhD in the School of Nursing and PhD application checklist (available at http://nursing.hsc.wvu.edu/). Students should be certain that all materials are sent to the following:

     WVU School of Nursing, Student Services Office
     P.O. Box 9600
     Morgantown, WV 26506-9600

2. Request an official transcript of records from each college or university attended. Transcripts and records should be sent directly to the following:

   WVU Health Science Center Office of Admissions
   P.O. Box 9815
   Morgantown, WV 26506-981

3. Send three letters of recommendation directly to the following:

   WVU School of Nursing Student Services Office
   P.O. Box 9600
   Morgantown, WV 26506-9600

   Letters should address the applicant's expertise in nursing, skills in research and scholarly writing, and likelihood for success in doctoral work. One letter should be from a former professor of the applicant.

4. Submit a current curriculum vitae.
5. Submit one scholarly essay, describing the applicant's research interests and career goals.

Degree Requirements

Core Requirements

NSG 704	Health Care Leadership	3
NSG 727	Contemporary Nursing Science	2
NSG 728	Theoretical Basis of Nursing	3
NSG 732	Seminar in Nursing Scholarship	2
NSG 735	Principles: Nursing Education	3
NSG 736	Advanced Health Policy and Ethics	3
Cognate/Electives		6

Select two 3 credit courses. One course must be an advanced methodology course and at least one of the two courses must be taken outside the School of Nursing

Research		
NSG 724	Health Research Statistics 1	3
NSG 725	Health Research Statistics 2	3
NSG 731	Qualitative Research Methods	3
NSG 729	Quantitative Research Methods	4
NSG 781	Research Mentorship	3
NSG 733	Research Grant Development	2
NSG 734	Use of Data	3
NSG 795	Independent Study	1
NSG 783	Dissertation Seminar	1

NSG 797	Research	9
Qualifying Examination [1]		
Journal Club [2]		
Scholarly Events [3]		
Total Hours		**54**

[1]	Successfully complete the qualifying examination prior to beginning the dissertation.
[2]	Participate in a monthly virtual journal club during the fall and spring semesters.
[3]	Attend 2 in-person scholarly events (2 days each fall and spring semester) throughout the program.

Academic Progression Standards

- Nursing course are taken in the sequence specified in the School of Nursing PhD Progression Plan. All prerequisites from preceding semesters must be completed prior to registration for new courses.
- Students must maintain a 3.0 GPA to progress in the program and much achieve an overall academic GPA of 3.0 in all coursework to be applied toward the PhD degree.
- Students may carry forward one C grade in any course to be applied toward the PhD degree. A second C will result in dismissal from the program.
- Students with a grade of D or F in any course will be dismissed from the program.
- The grade of "I" is given when the instructor believes that the coursework is unavoidably incomplete or that a supplementary examination is justifiable. Resolution of the grade of "I" will occur in the semester following its issuance and before any graduate degree can be awarded. If the "I" grade is not removed within the following semester, the grade of "I" is treated and "F" (failure). When an "I" grade is replaced, the grade point average is recalculated on the basis of the new grade.

Suggested Plan of Study

Students are required to be on campus for the six-week Summer sessions, once in the Fall for two days, and once in the Spring for two days. During residency, students are provided with an opportunity to participate with nurse researchers and peers in the ongoing development of a scholarly community.

First Semester	Hours
NSG 728	3
NSG 732	2
	5
Second Semester	**Hours**
NSG 724	3
NSG 735	3
	6
Third Semester	**Hours**
NSG 704	3
NSG 725	3
	6
Fourth Semester	**Hours**
NSG 731	3
NSG 736	3
	6
Fifth Semester	**Hours**
NSG 729	4
NSG 727	2
	6
Sixth Semester	**Hours**
NSG 781	1
Cognate	3
	4
Seventh Semester	**Hours**
NSG 733	2
NSG 734	3

NSG 781	1
	6
Eighth Semester	**Hours**
NSG 795	1
NSG 781	1
Cognate	3
	5
Ninth Semester	**Hours**
NSG 783	1
NSG 797	9
	10

Total credit hours: 54

Master of Science in Nursing Online Program

MSN Online Program

The School of Nursing offers a program of study leading to the master of science in nursing (MSN) degree. The major areas of study available in advanced practice nursing are family nurse practitioner (FNP), pediatric nurse practitioner (PNP), neonatal nurse practitioner (NNP), women's health nurse practitioner (WHNP), and nursing leadership. The school also offers post-master's programs in these areas for those who already hold an MSN. The programs are offered at the university's main campus in Morgantown and at the Charleston Division. Courses are offered via web-based modalities in real time. Courses are scheduled in the late afternoon at times convenient for working students and may require that students attend special sessions in Morgantown or Charleston. Dates of the special sessions are made available in advance so that students can plan their schedules in order to attend.

The master's program offers a curriculum that allows students to enroll on a part-time or full-time basis. Graduate students are strongly recommended to limit their credit load if they are also involved in full-time work. Students employed in full-time work should enroll for no more than six hours of master's-level coursework in any one term. Throughout the curriculum, students are guided in the process of self-development aimed at pursuing excellence in scholarly and professional endeavors. The program allows flexibility within the basic curricular structure through the individualization of learning experiences. The pattern and duration of the student's study plan is determined in consultation with a faculty advisor and is based upon the student's background and goals. The forty-four credit program can be completed in five semesters (including a summer session) of full-time study. The average full-time load is nine to twelve credit hours per semester. Part-time options are also available.

Graduates meet all requirements to sit for the national certification examination in their major area of family nurse practitioner, pediatric nurse practitioner, neonatal nurse practitioner, women's health nurse practitioner, or nursing leadership. They are prepared to offer care at the advanced practice level to select populations and are able to perform all activities encompassed in the traditional scope of practice.

Goals of the Master's Program:

1. Synthesize theories and research findings and broad-based perspectives for application in the advanced practice of nursing
2. Utilize systematic inquiry and refined analytical skills in the provision of health care services
3. Create a relationship with clients that builds and maintains a supportive and caring partnership
4. Articulate viewpoints and positions in order to improve the quality of healthcare delivery and outcomes of successful care
5. Consult and collaborate in interdisciplinary and interagency endeavors to advance culturally sensitive healthcare to clients, groups, and communities
6. Integrate prior and current learning as a basis for growth and accountability in enacting the role of the advanced practice nurse

Application Process

The application process should be completed by February 1. The beginning sequence of courses in the MSN program starts in the fall semester only. Class size and progression plans may be limited based on available faculty resources and space. Applicants to the MSN program need to complete the following steps in order to be considered for admission:

1. Complete two application forms as indicated below and return to the appropriate offices by the deadline
2. Application for Admission to Graduate Studies (available at https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantConnectLogin.asp?id=wvugrad)
3. Supplemental Application for Admission to Graduate Study in the School of Nursing (available on the School of Nursing website at http://nursing.hsc.wvu.edu/pages/Academic-Programs/Master-of-Science-in-Nursing-Program/MSN-Post-MSN-Supp-Application) submitted electronically
4. Request an official transcript of records from each college or university attended
   Transcripts and records should be sent directly to:

   WVU Health Science Center Office of Admissions

P.O. Box 9815
Morgantown, WV 26506-9815

5. Submit three letters of recommendation electronically
6. Request a copy of Graduate Record Exam or Miller Analogies
   Test scores be sent to:

   WVU Health Sciences Center Office of Admissions
   P.O. Box 9815
   Morgantown, WV 26506-9815
7. Submit a current curriculum vita or resume.
8. Submit a typewritten essay describing professional goals (limited to two type-written, double-spaced pages).

The parameters used for review of applicants include academic achievement, Graduate Record Exam or Miller Analogies Test scores, career goals, and recommendations.

For more information, visit the website at http://nursing.hsc.wvu.edu, or write to West Virginia University School of Nursing, P.O. Box 9600, Morgantown, WV 26506-9600, or call (304) 293-1386.

Admission Criteria

1. Satisfy WVU requirements for admission to graduate study
2. Have a cumulative GPA of 3.0 or higher on a 4.0 scale on all college work attempted
3. If taken before August, 2011: a minimum score of 350 each on the verbal and quantitative, with a minimum total of the two sections of 800, and an analytical writing score of 3.0.
   If taken after August, 2011: a minimum score of 143 on the verbal section, 138 on the quantitative section, a minimum total of the two sections of 286, and an analytical writing score of 3.0.
   OR a minimum Miller Analogies Test score of 400.
4. Have a current, unrestricted RN license in at least one state
5. Hold a bachelor of science degree in nursing from a school accredited by NLNAC or CCNE (A bachelor of science degree in nursing is mandatory.)
6. Have completed three credits of undergraduate statistics acceptable for transfer with a grade of C or better
7. Have completed a health assessment course, including physical examination skills, with a grade of B or better that is acceptable for transfer
8. Submit three letters of reference
9. Submit a typewritten essay describing professional goals (limited to two type-written, double-spaced pages) (A bachelor of science degree in nursing is mandatory.)

Applicants may be considered for provisional admission on an individual basis. The specific provisions which must be met for progression to regular status will be noted in the admission letter.

Note: Admission criteria and applications are subject to change. Please see the School of Nursing website for the most up-to-date criteria at http://nursing.hsc.wvu.edu.

Curriculum Requirements

In order to progress in the Master of Science in Nursing curriculum, a student must meet the following performance standards:

1. Achieve an overall academic Grade Point Average of at least 3.0 in all work attempted in the Master's Program.
2. Carry forward only one C grade in a nursing course. A second C in a nursing course will result in dismissal from the program.
3. Maintain a 3.0 GPA. A student who falls below 3.0 on 9 or more credit hours will be placed on academic probation and has one semester to bring up the GPA to the 3.0 requirement.
4. Repeat only one nursing course and only one time.
5. Earn a letter grade (A, B, C) on all required courses. A grade of D or F in any course results in dismissal from the program.

Master's of Science in Nursing Requirements

Core Courses

NSG 622	Theory and Disciplined Reasoning	3
NSG 623	Concepts of Advanced Nursing	2
NSG 627	Research and Systematic Analysis	5
NSG 628	Health Policy, Finance, Ethics	3
NSG 685	Clinical Scholarship	1

Required Area of Emphasis		30
Total Hours		**44**

Family Nurse Practitioner Area of Emphasis Requirements

NSG 624	Advanced Pathophysiology	4
NSG 626	Lifespan Health Promotion	2
NSG 629	Advanced Practice/Families	2
NSG 631	Advanced Pharmacotherapeutics	3
NSG 632	Advanced Assessment	2
NSG 633	Primary Care: Rural Families 1	3
NSG 634	Primary Care: Rural Families 2	4
NSG 635	Rural Family Health Practicum 1	5
NSG 636	Rural Family Health Practicum 2	5
Total Hours		**30**

Pediatric Nurse Practitioner Area of Emphasis Requirements

NSG 624	Advanced Pathophysiology	4
NSG 626	Lifespan Health Promotion	2
NSG 629	Advanced Practice/Families	2
NSG 631	Advanced Pharmacotherapeutics	3
NSG 644	Pediatric Primary Care 2	4
NSG 645	Pediatric Practicum 1	5
NSG 646	Pediatric Practicum 2	5
NSG 647	Assessment and Pediatric Care 1	5
Total Hours		**30**

Neonatal Nurse Practitioner Area of Emphasis Requirements

NSG 629	Advanced Practice/Families	2
NSG 631	Advanced Pharmacotherapeutics	3
NSG 654	Neonatal Pathophysiology	4
NSG 655	Neonatal health Promotion	2
NSG 663	Neonatal Assessment/Care 1	5
NSG 664	Neonatal Care 2	4
NSG 665	Neonatal Practicum 1	5
NSG 666	Neonatal Practicum 2	5
Total Hours		**30**

Women's Health Nurse Practitioner Area of Emphasis Requirements

NSG 624	Advanced Pathophysiology	4
NSG 626	Lifespan Health Promotion	2
NSG 629	Advanced Practice/Families	2
NSG 631	Advanced Pharmacotherapeutics	3
NSG 632	Advanced Assessment	2
NSG 683	Primary Care: Women and Girls 1	3
NSG 684	Primary Care: Women and Girls 2	4
NSG 686	WHNP Practicum 1	5
NSG 687	WHNP Practicum 2	5
Total Hours		**30**

Nursing Leadership Area of Emphasis Requirements

Leadership Courses

NSG 610	Leadership in Health Care	3
NSG 611	System Based Decision Making	2
NSG 612	Leading Health System Change	4
NSG 613	Managing Health Care Resources	3
NSG 614	Health Care Informatics	3
NSG 615	Program Planning/Evaluation	3
NSG 617	Leadership Practicum 1	5
NSG 618	Leadership Practicum 2	5
NSG 626	Lifespan Health Promotion	2
Total Hours		**30**

Post-Master's Certificate Program

The program prepares master's prepared nurses to sit for the national certification examination in the selected area of focus (family nurse practitioner, pediatric nurse practitioner, neonatal nurse practitioner, women's health nurse practitioner, and nursing leadership). To be considered for admission, the applicant must have a master's degree in nursing from a program accredited by NLNAC or CCNE with a minimum cumulative GPA of 3.0 or better and an unrestricted RN license in at least one state. Students in the post-master's certificate program must maintain a 3.0 GPA and receive satisfactory clinical ratings to progress. Each student's program will be individualized based on educational and experiential background. For those interested in a Nurse Practitioner Post-MSN certificate, prerequisites to registration for the required clinical courses in the program are evidence of competence in advanced pathophysiology, advanced pharmacotherapeutics, advanced assessment, and health promotion.

Note: Admission criteria are subject to change. Please see the School of Nursing website for the most up-to-date criteria at http://nursing.hsc.wvu.edu.

The required courses for post-master's certification are as follows:

Post Master's Family Nurse Practitioner Requirements

Minimum 3.0 GPA

NSG 624	Advanced Pathophysiology	4
NSG 626	Lifespan Health Promotion	2
NSG 631	Advanced Pharmacotherapeutics	3
NSG 632	Advanced Assessment	2
NSG 633	Primary Care: Rural Families 1	3
NSG 634	Primary Care: Rural Families 2	4
NSG 635	Rural Family Health Practicum 1	5
NSG 636	Rural Family Health Practicum 2	5
Complete a minimum of 600 supervised clinical hours.		
Total Hours		**28**

Post Master's Pediatric Nurse Practitioner Requirements

Minimum 3.0 GPA

NSG 624	Advanced Pathophysiology	4
NSG 626	Lifespan Health Promotion	2
NSG 631	Advanced Pharmacotherapeutics	3
NSG 644	Pediatric Primary Care 2	4
NSG 645	Pediatric Practicum 1	5
NSG 646	Pediatric Practicum 2	5
NSG 647	Assessment and Pediatric Care 1	5
Complete a minimum of 600 supervised clinical hours.		
Total Hours		**28**

Post Master's Neonatal Nurse Practitioner Requirements

Minimum 3.0 GPA

NSG 631	Advanced Pharmacotherapeutics	3
NSG 654	Neonatal Pathophysiology	4

NSG 655	Neonatal health Promotion	2
NSG 663	Neonatal Assessment/Care 1	5
NSG 664	Neonatal Care 2	4
NSG 665	Neonatal Practicum 1	5
NSG 666	Neonatal Practicum 2	5
Complete a minimum of 600 supervised clinical hours.		
Total Hours		**28**

Post Master's Women's Health Nurse Practitioner Requirements

Minimum 3.0 GPA

NSG 624	Advanced Pathophysiology	4
NSG 626	Lifespan Health Promotion	2
NSG 631	Advanced Pharmacotherapeutics	3
NSG 632	Advanced Assessment	2
NSG 683	Primary Care: Women and Girls 1	3
NSG 684	Primary Care: Women and Girls 2	4
NSG 686	WHNP Practicum 1	5
NSG 687	WHNP Practicum 2	5
Complete a minimum of 600 supervised clinical hours.		
Total Hours		**28**

Post Master's Nursing Leadership Requirements

Minimum 3.0 GPA

NSG 610	Leadership in Health Care	3
NSG 611	System Based Decision Making	2
NSG 612	Leading Health System Change	4
NSG 613	Managing Health Care Resources	3
NSG 614	Health Care Informatics	3
NSG 615	Program Planning/Evaluation	3
NSG 617	Leadership Practicum 1	5
NSG 618	Leadership Practicum 2	5
NSG 626	Lifespan Health Promotion	2
Complete a minimum of 600 supervised clinical hours.		
Total Hours		**30**

ASSOCIATE PROFESSORS

- Lena Maynor - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy
- David W. Newton - Ph.D. (Virginia Commonwealth University)
  Department of Pharmaceutical Sciences

- David P. Elliott - Pharm.D. (University of Texas)
  Department of Clinical Pharmacy, Associate Chair for the Charleston Division
- Gerald M. Higa - Pharm.D. (University of the Pacific)
  Department of Clinical Pharmacy and Hematology/Oncology
- Jason D. Huber - Ph.D. (Florida A&M)
  Department of Pharmaceutical Sciences
- S. Suresh Madhavan - Ph.D. (Purdue University)
  Chair, Department of Pharmaceutical Systems and Policy
- William P. Petros - Pharm.D. (Philadelphia College of Pharmacy & Science)
  Department of Pharmaceutical Sciences
- Charles D. Ponte - Pharm.D. (University of Utah)
  Departments of Clinical Pharmacy and Family Medicine
- Yongyut Rojanasakul - Ph.D. (University of Wisconsin)
  Department of Pharmaceutical Sciences
- Usha Sambamoorthi - Ph.D. (University of Madras)
  Department of Pharmaceutical Systems and Policy
- Elizabeth J. Scharman - Pharm.D. (Virginia Commonwealth University/Medical College of Virginia)
  Department of Clinical Pharmacy, Charleston Division. Director, West Virginia Poison Center
- Terrence L. Schwinghammer - Pharm.D. (Purdue University)
  Chair, Department of Clinical Pharmacy
- Ginger Scott - Ph.D. (University of Minnesota)
  Department of Pharmaceutical Systems and Policy

ASSOCIATE PROFESSORS

- Robert K. Griffith - Ph.D. (The Ohio State University)
  Department of Pharmaceutical Sciences
- Allie Karshenas - Ph.D. (West Virginia University)
  Department of Pharmaceutical Systems and Policy
- Kimberly M. Kelly - Ph.D. (Rutgers University)
  Department of Pharmaceutical Systems and Policy
- Douglas Slain - Pharm.D. (Duquesne University)
  Department of Clinical Pharmacy
- Grazyna Szklarz - Ph.D. (Clarkson University)
  Department of Pharmaceutical Sciences

CLINICAL ASSOCIATE PROFESSORS

- Gina M. Baugh - Pharm.D. (University of Pittsburgh)
  Department of Clinical Pharmacy. Director, Introductory Pharmacy Practice Experiences
- Matthew Blommel - Pharm.D. (Mercer University)
  Department of Clinical Pharmacy
- Krista D. Capehart - Pharm.D. (University of Michigan)
  Department of Clinical Pharmacy. Director, Wigner Institute for Advanced Pharmacy Practice
- Betsy M. Elswick - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy
- Jonathan M. Kline - Pharm.D. (Ohio Northern University)
  Department of Clinical Pharmacy
- Lena M. Maynor - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy. Director, Advanced Pharmacy Practice Experiences
- Michael D. Newton - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy
- Christopher M. Terpening - Ph.D. (University of Colorado)
  Department of Clinical Pharmacy
- Tara R. Whetsel - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy

CLINICAL ASSISTANT PROFESSORS

- Charles K. Babcock - Pharm.D. (West Virginia University)

Department of Clinical Pharmacy

- Gregory B. Castelli - Pharm.D. (Wilkes University)
  Department of Clinical Pharmacy
- Jennifer Confer - Pharm.D. (University of Arizona)
  Department of Clinical Pharmacy
- Gretchen M. Garofoli - Pharm.D. (University of Pittsburgh)
  Department of Clinical Pharmacy
- Franklin Huggins - Pharm.D. (University of Utah)
  Department of Clinical Pharmacy
- John (Jay) Martello - Pharm.D. (Duquesne University)
  Department of Clinical Pharmacy
- Ashlee McMillan - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy. Director, Skills Development
- Jeremy J. Prunty - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy
- Travis G. White - Pharm.D. (West Virginia University)
  Department of Clinical Pharmacy. Director, Health Education Center
- Jon P. Wietholter - Pharm.D. (University of Pittsburgh)
  Department of Clinical Pharmacy

ASSISTANT PROFESSORS

- Erik A. Bey - Ph.D. (Cleveland State University)
  Department of Pharmaceutical Sciences
- Nilanjana Dwibedi - Ph.D. (University of Houston)
  Department of Pharmaceutical Systems and Policy
- Letha J. Sooter - Ph.D. (University of Texas)
  Department of Pharmaceutical Sciences

Degree Designation Learning Goals

DOCTOR OF PHARMACY (PHARMD)

Educational Outcomes

Upon successful completion of the West Virginia University Doctor of Pharmacy degree program, the graduate will be able to accomplish the following educational outcomes (EOs):

EO 1   Foundational Knowledge and Skills (Learner) - Develop, integrate, and apply foundational knowledge (e.g., concepts, facts, principles) from biological, pharmaceutical, social, behavioral, administrative, and clinical sciences to evaluate the scientific literature, explain drug actions, solve therapeutic problems, and advance individual and population health.

- Acquire and demonstrate depth and breadth of knowledge of foundational scientific, clinical, socioeconomic, and humanistic concepts and skills.
- Explain how knowledge in the foundational sciences is integral to pharmacy practice.
- Integrate knowledge from foundational sciences to explain how specific drugs or drug classes work and evaluate their potential value in individuals and populations.
- Apply foundational concepts and skills to practice.
- Use scientific reasoning and critical thinking skills in practice to address problems, issues, or concerns.
- Develop and apply creative and innovative approaches to effectively resolve problems and improve patient outcomes.
- Apply an evidence-based approach to practice by identifying appropriate questions to address, using databases and other resources to retrieve information, critically analyzing and interpreting relevant scientific information and other evidence, formulating sound conclusions, and integrating the best published evidence with expertise and individual patient values/needs.
- Analyze and use epidemiologic, pharmacoeconomic, medication utilization, and quality improvement data when developing evidence-based programs and protocols.
- Apply knowledge of research methodology to design or conduct basic research, practice-based studies, or clinical trials.
- Use information technology where appropriate to enhance individual knowledge and skills.

EO 2   Communication Skills (Communicator, Educator) – Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.

- Use appropriate verbal and nonverbal communication skills with individuals or groups, including patients, health professionals and others.

- Use effective written communication skills with patients, health professionals, and others, including the development of documents pertinent to professional or organizational needs (e.g., monographs, reports).
- Educate target audiences by using the most effective method to deliver information, in coordination with other health care professionals as appropriate.
- Use technology to facilitate or enhance professional communications and presentations.

EO 3   Professionalism, Advocacy, and Leadership (Professional, Leader, Advocate) - Exhibit behaviors and values consistent with the professional trust given by patients, healthcare providers, and society; assure that patients' best interests are represented; and demonstrate responsibility for achieving shared goals regardless of position.

- Conduct pharmacy practice duties and patient care responsibilities in accordance with applicable federal, state, and local laws, statutes, and regulations, as well as professional guidelines and standards.
- Serve as an advocate, leader, and change agent for pharmacy and pharmacists' professional roles and responsibilities by implementing or participating in new, evidence-based models for cost-effective pharmacist-delivered patient care.
- Serve as an advocate for community and patient health and medication therapy needs, including disadvantaged or underserved patients and those from diverse cultural and socioeconomic backgrounds, while honoring their autonomy and dignity.
- Serve as a positive role model in actions/communications for peers and other health care providers by maintaining a high standard for personal and professional demeanor and ethical conduct.
- Respect all points of view in professional interactions while placing patients' needs and desires at the forefront.
- Demonstrate compassion, empathy, honesty, integrity, ethical behavior and altruism in all actions and communications with patients, families, and care providers.
- Develop professional competence through ongoing, active and self-directed pursuit of new knowledge and skills.
- Identify and analyze emerging health care and pharmacy issues and incorporate new roles, products and services into practice that can improve patient outcomes.
- Accept accountability and responsibility for one's words and actions.

EO 4   Self-Awareness (Insightful) – Examine and assess personal knowledge, skills, abilities, attitudes, beliefs, motivation, and emotions and strive for continual improvement.

- Conduct self-assessments on a regular basis and create, implement, evaluate, and modify as needed plans for personal improvement and continuing professional development.
- Recognize personal strengths and limitations and seek assistance when needed.
- Approach tasks and situations with flexibility and a desire to learn.
- Accept constructive criticism and display a willingness to correct and learn from errors.

EO 5   Interprofessional Collaboration (Collaborator) – Actively participate as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.

- Collaborate with health care professionals, patients, and/or caregivers to ensure that desired patient-specific or population-based health outcomes are achieved.
- Facilitate team building among health care professionals by developing and maintaining an atmosphere of mutual respect and shared values that place the patient at the forefront.
- Effectively utilize the knowledge, expertise, and unique roles of health care team providers and refer patients to others when indicated.
- Serve as the medication expert on a collaborative care team by managing the pharmacotherapy for patients' medical conditions and by proactively providing drug product and other medication related information to team members.
- Accept responsibility for medication-related outcomes on the care team.

EO 6   Patient Care (Provider) – Provide patient-centered care as the medication expert.

- Accurately interpret, prepare and/or compound, handle and dispense prescriptions for patients.
- Obtain necessary patient-specific data (e.g., consulting patient records, taking medication histories, performing basic physical assessments, ordering/interpreting lab tests), and evaluate and use these data when performing patient care related responsibilities.
- Evaluate pharmaceutical products, including information about the drug, dosage form, delivery system and cost/benefit, when conducting a medication review or preparing a care plan.
- Conduct comprehensive medication reviews and prepare individualized care plans to optimize patient outcomes, with emphasis on commonly encountered chronic or high risk conditions amenable to pharmacotherapy and patients at greater risk for adverse events.
- Work with patients, caregivers, and health care professionals to implement specific therapy plans.
- Educate and empower patients to take an active role in their health and incorporate recommendations for healthy living and self-care into care plans.
- Monitor and evaluate patients during therapy for drug product or pharmacotherapy problems, patient concerns, or adherence issues and recommend or implement solutions.

- Work with patients and other health care providers to ensure the continued success of individual care plans.
- Document patient-care services in charts/medical records and on forms needed for reimbursement.
- Counsel patients and/or caregivers about the following to help ensure a care plan's success: i) medications, non-drug therapy, dietary supplements and natural products; ii) insurance and other options for obtaining necessary medications; iii) proper use of testing devices and medical goods and equipment; and iv) healthy lifestyle changes.

EO 7   Population-Based Care (Promoter, Provider) – Design and implement prevention, intervention, and educational strategies for communities to manage chronic disease and improve health and wellness.

- Develop, recommend, and provide preventive health services, such as administration of vaccines and screening tests.
- Develop and implement disease management programs based upon identified needs and priorities (e.g., cost, access, and patient satisfaction considerations; commonly encountered, chronic conditions managed by pharmacotherapy).
- Evaluate and adjust interventions as needed to maximize population health.
- Promote public awareness of health promotion and disease prevention strategies.
- Design, develop, and disseminate public health related educational materials or services in a culturally competent manner.
- Work with health care professionals and other personnel to identify and help resolve key public health issues and problems, and participate in policies or strategies to address them.

EO 8   Pharmacy and Medication Use Systems (Manager) – Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.

- Demonstrate knowledge of pharmacy management including operations, human and fiscal resources, marketing, and leadership principles.
- Design, use, and manage systems to prepare, dispense, distribute and administer medications to optimally serve patient's drug-related needs.
- Use knowledge of the organization and financing of the U.S. healthcare system to provide and effectively manage progressive pharmacy services.
- Develop a business plan for integrating clinical and distributive services that includes methods for supporting and obtaining reimbursement for clinical services provided to patients.
- Demonstrate and apply knowledge of national standards, guidelines, best practices, and established principles and processes for safe medication use to protect patient safety.
- Participate in quality improvement programs and employ performance indicators to enhance the quality of care and cost effectiveness of services provided and to optimize safe, appropriate medication use.
- Participate in developing and performing medication use evaluations to identify and resolve drug therapy problems or concerns.
- Reconcile a patient's medications when transitioning from one care setting to another by communicating effectively with all involved health care professionals.
- Use current and emerging information and system technologies to enhance safe and effective medication use.
- Provide recommendations for developing and managing a formulary that incorporate pharmacoeconomic principles.
- Actively participate in, and contribute to the development of, strategies to minimize drug misuse/abuse.

DOCTOR OF PHILOSOPHY (PHD)

Student Learning Outcomes of the Pharmaceutical & Pharmacological Sciences graduate education program are focused on preparing students to become independent researchers. To be successful in our program pathways, students will need to develop competencies in the scientific research process through didactic studies in an area of emphasis and then conceptualizing, designing, conducting, and reporting original research.

Student Learning Outcomes

- Learn basic and applied principles in specific disciplines and related fields in order to develop a broad background of knowledge.
- Develop research skills including scientific communication and critical thinking/problem solving ability by participating in seminars and designated research skill courses.
- Gain hands-on experience in conducting original research, including acquisition of background information (e.g. literature research), experimental design and experimentation.
- Develop research communication skills by writing abstracts for research presentations, manuscripts for publication, research grant proposals, and a thesis or dissertation.
- Gain additional insight into research and scholarship by participating in scholarly exchanges with faculty and students in the WVU School of Pharmacy, the Health Sciences Center (HSC), and the West Virginia University community.

Pharmaceutical and Pharmacological Sciences

Degree Offered

- Doctor of Philosophy

Introduction

The WVU School of Pharmacy offers graduate programs in the pharmaceutical and pharmacological sciences for the Ph.D. degree. The school is advantageously located in the Health Sciences Center complex which also houses all departments of the Schools of Medicine, Nursing, and Dentistry, as well as a comprehensive medical library, audio-visual and computer-based learning center, research core facilities, and laboratory animal quarters. State-of-the-art research laboratories are located throughout the Health Sciences Center complex to facilitate interactions with the Mary Babb Randolph Cancer Center, Center for Neuroscience, and Center for Cardiovascular and Respiratory Sciences. In addition, the Health Sciences Center has easy access to the Evansdale and Downtown campuses of WVU through a personal rapid transit (PRT) system. The scientific community, which is especially well-developed, draws on area scientists throughout WVU, the Centers of Disease Control/National Institute on Occupational Safety and Health (CDC/NIOSH), Federal Bureau of Investigation (FBI), and a variety of research centers supported by the National Institutes of Health (NIH), National Science Foundation (NSF), and the Department of Energy (DOE). A CDC/NIOSH research facility is two blocks away, and Mylan Pharmaceuticals, a leading generic drug producer in the world, is located across the street from the Health Sciences Center. In addition, the school has long-standing collaborations with several state agencies and multinational pharmaceutical companies.

Degree Offered

• Doctor of Philosophy

Research interests are complementary to the focus of each of the two pathways in the program: pharmaceutical and pharmacological sciences, and health outcomes. Key areas of research interest and expertise in the pharmaceutical and pharmacological sciences pathway include: pharmaceutical sciences, pharmacology, cancer, neuroscience, nanoscience, and toxicology. Key areas of research interest and expertise in the health outcomes pathway include: health outcomes, health disparities, health services, health quality, pharmacoeconomics, pharmacoepidemiology, patient reported outcomes, and health behavior.

Graduate Program Pharmaceutical and Pharmacological Sciences

The School of Pharmacy offers a doctor of philosophy (Ph.D.) degree in pharmaceutical and pharmacological sciences with two pathways aimed at training competent researchers and educators: health outcomes research, and pharmaceutical and pharmacological sciences. Both pathways in the graduate program provide interdisciplinary, research-oriented curricula designed to develop the interests, capabilities, and potential of the individual student. Specialty areas of study include: pharmacology, drug metabolism, cancer cell biology, nanotechnology, health outcomes, epidemiology, and policy research.

For each pathway in the graduate program, upon completion of the second year of study, students must submit a formal plan of study and a research plan that is approved by their Ph.D. committee. Progress is expected to continue with guidance from the student's research committee. Final admission to candidacy requires satisfactory performance on written and oral qualifying examinations as well as a dissertation proposal defense. Subsequent to admission to candidacy, a substantial part of the program is devoted to an original research project which culminates in a first-authored publication and dissertation. To be recommended for a Ph.D., the dissertation must be satisfactorily completed and defended at an oral examination.

Academic Standards

No credits are acceptable toward a graduate degree with a grade lower than a C. A graduate student is expected to have a cumulative grade point average of at least 3.0 in all graduate courses to continue in the program and to qualify for a Ph.D. degree.

Admission Requirements

Applicants for admission into the graduate program must satisfy the WVU and Health Sciences Center general requirements for admission as a graduate student. The applicant must possess a baccalaureate degree, background in a suitable area of study, an overall grade point average of at least 3.0, and the aptitude and interest for graduate work in pharmaceutical and pharmacological sciences or health outcomes research to be admitted. Graduate Record Examination (GRE) scores in the verbal, quantitative, and analytic essay portions are required from all students planning on entering the graduate program. TOEFL scores are required of international students from countries where English is not the primary language.

To obtain specific information related to the school's graduate programs, graduate faculty research interests, and availability of graduate assistantships or fellowships, applicants may contact:

Office of Research and Graduate Programs
WVU School of Pharmacy
2037 Health Sciences Center North
P.O. Box 9530 Morgantown, WV 26506
Telephone: (304) 293-0944
e-mail: prlockman@hsc.wvu.edu

Doctor of Philosophy

The School of Pharmacy offers a doctor of philosophy (Ph.D.) degree in pharmaceutical and pharmacological sciences with two pathways aimed at training competent researchers and educators: pharmaceutical and pharmacological sciences, and health outcomes research.

MAJOR REQUIREMENTS

Pharmaceutical & Pharmacological Sciences Pathway		84-120
BMS 700	Scientific Integrity	1
BMS 706	Cellular Methods	1
BMS 715	Molecular Genetics	3
BMS 720	Scientific Writing	2
BMS 797	Research	1-5
BMS Course	Fundamentals of Contemporary Biomedical Research	1-8
Graduate Seminar		6
PHAR 796	Graduate Seminar	
Research		40-50
PHAR 797	Research	
PHAR 798	Thesis or Dissertation	6
Journal Clubs (Select from the following)		6
PHAR 783	Pharmacy Cell Biology Seminar	
PHAR 784	Pharmacology Journal Club	
PHAR 787	Drug Discovery and Development	
Advanced Courses/Electives		14-21
BIOC 791	Advanced Topics	
CHEM 335	Methods of Structure Determination	
CHEM 346	Physical Chemistry	
CHEM 514	Mass Spectrometry Principles and Practices	
CHEM 531	Advanced Organic Chemistry 1	
CHEM 531	Advanced Organic Chemistry 1	
PCOL 743	Pharmacology 1	
PCOL 744	Pharmacology 2	
PCOL 745	Advanced Pharmacology 1	
PCOL 746	Advanced Pharmacology 2	
PHAR 711	Chemical Properties of Drugs	
PHAR 716	Chemistry of Drug Action 1	
PHAR 726	Chemistry of Drug Action 2	
PHAR 731	Pharmacogenomics and Pharmacokinetics	
PHAR 779	Drugs: Bench to Market	
PHAR 780	Introduction to Molecular Modeling	
PHAR 781	Drug Metabolism	
Laboratory Rotations 1		1-3
Laboratory Rotations 2		1
Laboratory Rotations 3		1
Qualifying Exams		
Dissertation Proposal Defense		
Dissertation Defense		
Total Hours for Pharmaceutical & Pharmacological Sciences Pathway		84-120
Health Outcomes Research Pathway		73
BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
BIOS 603	Applied Biostatistics 2	3
BIOS 604	Applied Biostatistics 3	3
BMS 720	Scientific Writing	2
PHAR 753	Social and Behavioral Theory and Health Outcomes Research	3
PHAR 755	Pharmacoeconomics	3
PHAR 756	Health Survey Research Methods	3
PHAR 757	Patient Reported Outcomes	3

PHAR 758	Ethical and Regulatory Aspects of Clinical Research	1
PHAR 785	Pharmacoepidemiology	3
PHAR 786	Health Services Research and Secondary Database	3
Graduate Seminar (taken each semester)		12
PHAR 788	Graduate Seminar in Health Outcomes Research (Repeated)	
PHAR 797	Research	1-15
Electives		12
Dissertation		8
PHAR 798	Thesis or Dissertation	
Qualifying Exams		
Dissertation Proposal Defense		
Dissertation Defense		
Total Hours for Health Outcomes Research Pathway		76-90

PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES PATHWAY SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BMS 700	1	BMS 715	3	BMS 720	2
BMS 706	1	Laboratory Rotations 2	1	PHAR 797	2
Laboratory Rotations 1	1-3	Laboratory Rotations 3	1		
BMS Course - Fundamentals of Contemprary Biomedical Research	1-8	Advanced Courses/ Elective Modules (selected from the list)	5-9		
BMS 797	1-5				
*Students must sign up for a minimum of 9 hours					
	5-18		**10-14**		**4**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
Advanced Courses/ Elective Modules (Select from the list)	3-6	Advanced Courses/ Elective Modules (select from list)	3	PHAR 797	6
PHAR 796	1	PHAR 796	1		
Journal Club (Select from the following)	1	Journal Club (Select from the following)	1		
PHAR 783		PHAR 783			
PHAR 784		PHAR 784			
PHAR 787		PHAR 787			
PHAR 797	4-5	PHAR 797	4-7		
		Take Qualifying Exams			
	9-13		**9-12**		**6**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
Advanced Courses/ Elective Modules (Select from list)	3	PHAR 798	2-4	PHAR 797	6
PHAR 796	1	PHAR 796	1		
Journal Club (Select from the following)	1	Journal Club (Select from the following)	1		
PHAR 783		PHAR 783			
PHAR 784		PHAR 784			

Fall	Hours	Spring	Hours	Summer	Hours
PHAR 787		PHAR 787			
PHAR 797		3-4 PHAR 797		3	
Proposal Defense		*Students must sign up for a minimum of 9 hours			
*Students must sign up for a minimum of 9 hours					
	8-9		**7-9**		**6**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
PHAR 797		3-6 PHAR 797		3-5 PHAR 797	6
PHAR 798		2-4 PHAR 798		2-4	
PHAR 796		1 PHAR 796		1	
Journal Club (Select from the following)		1 Journal Club (Select from the following)		1	
PHAR 783		PHAR 783			
PHAR 784		PHAR 784			
PHAR 787		PHAR 787			
		*Students must sign up for a minimum of 9 hours			
	7-12		**7-11**		**6**

Total credit hours: 84-120

HEALTH OUTCOMES RESEARCH PATHWAY SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BIOS 601		3 BIOS 603		3 BMS 720	2
BIOS 602		1 Select one of the following:		3 PHAR 798	3
Select one of the following:		2 PHAR 754		PHAR 797	1-15
BMS 700		PHAR 786		Electives	5
PHAR 758		PHAR 788		1	
PHAR 788		1 Electives		6	
Select one of the following:		3			
PHAR 755					
Select one of the following:		3			
PHAR 753					
PHAR 756					
	13		**13**		**11-25**

Second Year

Fall	Hours	Spring	Hours
Select one of the following:		3 Select one of the following:	3
PHAR 755		BIOS 604	
PHAR 785		PSYC 612	
Select one of the following:		3 SBHS 701	3
PHAR 753		PHAR 788	1
PHAR 756		PHAR 757	3

PHAR 756	3	Select one of the following:	3
PHAR 769	3	PHAR 754	
PHAR 788	1	PHAR 786	
Select one of the following:		3	Electives	2
PUBA 670		PHAR 798	2
PHAR 758			
PHAR 756			
	16		**17**

Total credit hours: 70-84

Doctor of Pharmacy (Pharm. D.)

Program Information

AREA OF EMPHASIS IN CLINICAL PHARMACY PRACTICE

Students can complete an Area of Emphasis in Clinical Pharmacy Practice which provides students with the knowledge, clinical skills, and professional development necessary to prepare for post graduate year 1 (PGY-1) residency training. As part of the pathway, students complete a research project under the mentorship of a faculty member. Students apply to the program in the second year of the professional program through a competitive application process. More information can be found on the School's webpage at http://pharmacy.hsc.wvu.edu/studentservices/Description-of-the-Professional-Program/Areas-of-Emphasis/Emphasis-in-Clinical-Pharmacy-Practice.

AREA OF EMPHASIS IN RESEARCH

The Area of Emphasis in Research is designed to expose students to the research process through research-related coursework and completion of a research project relevant to pharmacy under the guidance of a faculty member. This pathway can increase competitiveness for residencies, provide research experience for students who are considering academic careers, or provide research exposure for students considering additional graduate training. Students complete a honor's thesis style write up demonstrate critical thinking skills and contribute new knowledge to the profession of pharmacy. More information can be found at http://pharmacy.hsc.wvu.edu/studentservices/Description-of-the-Professional-Program/Areas-of-Emphasis/Emphasis-in-Research-Proposal.

JOINT PHARM.D./MASTER OF BUSINESS ADMINISTRATION (M.B.A.)

The joint Pharm.D./Master of Business Administration (M.B.A.) program provides outstanding career opportunities for graduates by building expertise in business administration principles and managerial practices coupled with therapeutic knowledge and expertise in medication management. The goal of the dual degree program is to prepare the next generation of leaders, managers, and administrators for rewarding careers in health care or pharmaceutical organizations. Opportunities for the joint degree graduates include leadership positions in hospitals and health systems, pharmacy benefit management companies, government organizations, the pharmaceutical industry, chain pharmacy corporations, and owning, franchising, or operating an independent pharmacy. Through a well-coordinated plan of study in both degree programs, the dual Pharm.D./M.B.A. degree students will be able to obtain two nationally-accredited graduate degrees - M.B.A. and Pharm.D. degrees - during the course of the 4-year Pharm.D. program. Additional information, including the plan of study, can be found at http://pharmacy.hsc.wvu.edu/studentservices/Description-of-the-Professional-Program/PharmD-MBA-Program.

GRADUATE CERTIFICATE IN GERONTOLOGY

The Graduate Certificate in Gerontology is offered to students through the School of Social Work. Students explore the biologic, psychological, and sociological processes of aging, the needs and experiences of older people, and the impact of social policies related to aging. An understanding of the unique problems and needs of older adults in Appalachia is emphasized. Coursework in the School of Pharmacy related to the optimal use of medications in the elderly compliments the core curriculum. Additional information can be found at http://socialwork.wvu.edu/certificate-programs/graduate-certificate-in-gerontology.

Academic and Technical Standards

In accordance with section 504 of the Rehabilitative Act of 1973 (PL 93-112), and incorporating the guidelines of the Americans with Disabilities Act (ADA PL 101-336) enacted by Congress in 1990, the West Virginia University School of Pharmacy has adopted minimal technical standards for the assessment of admission, scholastic advancement, and graduation for its professional degree (doctor of pharmacy) program.

Because the doctor of pharmacy (Pharm.D.) degree signifies that the holder is a pharmacist prepared for entry into the practice of pharmacy, it follows that graduates must have the knowledge, skills, and demeanor to function in a broad variety of clinical situations and to conduct a wide spectrum of pharmaceutical care activities.

Candidates for admission into, progression through, and graduation from the Pharm.D. program must have the functional use of the senses of vision and hearing. Candidates' pharmaceutical skills will also be lessened without the functional use of the senses of equilibrium, smell, and taste. Additionally, they must have sufficient motor function to permit them to carry out the activities described in the sections that follow. They must be able to consistently, quickly, and accurately integrate all information received by whatever sense(s) employed, and they must have the intellectual ability to learn, integrate, analyze, and synthesize data.

A candidate for the Pharm.D. degree must have abilities and skills of five varieties including:

- Observation
- Communication
- Motor
- Conceptual, integrative, and quantitative
- Behavioral and social

Technological compensation can be made for some handicaps in certain of these areas, but a candidate should be able to perform in a reasonably independent manner. The use of a trained intermediary means that a candidate's judgment must be mediated by someone else's power of selection and observation. For details, see the Technical Standards document published online at http://pharmacy.hsc.wvu.edu/studentservices/Description-of-the-Professional-Program.

Student Course Load

Students in the doctor of pharmacy program are expected to register for all required classes in a semester unless directed not to do so by the Committee on Academic and Professional Standards or the Office of Student Services. Full-time students in the School of Pharmacy may not register for less than nine credit hours during any semester without written approval of the Committee on Academic and Professional Standards or the Office of Student Services. For an exception, a letter of petition must be submitted to the Committee on Academic and Professional Standards through the School of Pharmacy's Office of Student Services.

Promotion and Graduation Requirements

EVALUATION OF STUDENT PROGRESS

Promotion of a student in the doctor of pharmacy program is evaluated in two major areas: successful completion of all required work and appropriate adherence to the professional standards of the School of Pharmacy.

The following information is only a brief outline of the School of Pharmacy policies and procedures. Detailed requirements and policies for evaluation of student progress and graduation can be found in the *Policy on Academic and Professional Standards Governing the Doctor of Pharmacy Degree Program at West Virginia University School of Pharmacy* and may be viewed on the School of Pharmacy website. Copies are available at the Office of Student Services. The Committee on Academic and Professional Standards administers all promotion and academic penalty rules.

ACADEMIC COURSEWORK REVIEW

The Committee on Academic and Professional Standards of the School of Pharmacy reviews the performance of each student in every course at the end of each academic period and makes recommendations to the dean.

If a student has been found to have a marginal performance in any course as indicated by a grade less than a C or a semester GPA less than 2.5, probation will be recommended. Students on probation are not eligible to hold office in student organizations. Students on probation are expected to be present for all of their classes and laboratories. If a student fails to complete any required remedial actions or meet the specified performance requirements during the probationary period, academic suspension or dismissal may be recommended.

If a student has been found to have an unsatisfactory performance as indicated by a grade of F in any course, two or more grades less than a C in a semester, three or more grades less than C in a year, or an accumulation of narrative evaluations that indicate an academic deficiency or inadequate integration of curricular content, suspension or dismissal from the school may be recommended. In selected circumstances, the committee may recommend remedial work or repetition of all or a portion of the curriculum. Exceptions may be made only on recommendation of the committee.

After academic dismissal, a student may apply for readmission to the School of Pharmacy. Readmission of a student is the prerogative of the dean following a recommendation by the Committee on Academic and Professional Standards.

GRADING POLICY

Courses in the doctor of pharmacy degree program are graded either as A (excellent), B (good), C (fair), D (marginal), F (failing), I (incomplete), or on a (P) pass/(F) fail basis. Grades may be accompanied by a narrative report on the student's progress, noting any factors requiring remedial work or counseling. It is customary that all experiential courses are accompanied by a narrative evaluation. Narrative evaluations are kept in the student's file in the Office of Student Services.

The grade of incomplete (I) is given when the instructor believes that the work is unavoidably incomplete. If the grade of I is not removed by the satisfactory completion of the work before the end of the next semester in which the student is in residence, it becomes a failure (F) unless special

permission to postpone the work is obtained from the Committee on Academic and Professional Standards. It is the responsibility of the student to consult the instructor about the means and schedule for completing incomplete courses. A contract specifying what work must be completed and when should be drawn up by the instructor and signed by the instructor and student.

PROFESSIONAL STANDARDS REVIEW

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession. Further information is provided in The Policy on Academic and Professional Standards Governing the Doctor of Pharmacy Degree at West Virginia University School of Pharmacy, which is available at the School of Pharmacy Office of Student Services.

Special Requirements

The Board of Pharmacy requires 1,500 clock hours of internship experience for licensure in West Virginia. Students are required to obtain an Intern Certificate from the West Virginia Board of Pharmacy in order to accrue intern hours. Any hours worked before becoming a registered intern will not apply toward meeting the WV board requirements. Students must have a valid Intern Certificate throughout their entire experiential years of the Pharm.D. program. The certificate must be maintained until completion of the entire internship. The Board of Pharmacy holds final authority over internship rules and regulations. Up to 800 hours of the total of 1,500 required by the WV Board of Pharmacy may be obtained via the WVU School of Pharmacy experiential program.

Students in the Pharm.D. program will perform one two-week block of experiential rotations at the conclusion of both the first and second years of the professional curriculum and eight five-week rotations during the Advanced Pharmacy Practice Experience (APPE) year of the program. Two of the eight blocks performed in the fourth year of the curriculum must be performed in designated rural sites. Site placement and sequencing will occur in the semesters prior to the experiential activities. Students may incur additional housing and/or travel costs when taking part in the experiential rotations. Opportunity will be provided for students to prioritize their site selection; however, ultimate authority for site selection will be maintained by the School of Pharmacy. All didactic coursework (required and elective) must be successfully completed prior to beginning the fourth-year APPE experiential rotations.

Legal Requirements and Reciprocity

To qualify for examination for licensure by the West Virginia Board of Pharmacy, the applicant must be 18 years of age or older and of good moral character. Further, the applicant must be a graduate of an accredited school of pharmacy and must meet the internship requirements set by the West Virginia Board of Pharmacy.

Interns must be registered with the West Virginia Board of Pharmacy and must be enrolled in or a graduate of an accredited school of pharmacy to gain experience acceptable for the internship requirement. Details may be obtained from the Office of Student Services. School of Pharmacy graduates are eligible for examination to practice pharmacy in any state. Graduates who successfully pass the West Virginia Board of Pharmacy examination are privileged to reciprocate with forty-nine other states, the District of Columbia, and Puerto Rico provided they meet the licensure requirements of these states.

Course Changes

A student who seeks exemption from one or more professional courses based upon previous academic experience must submit a written petition to the Committee on Academic and Professional Standards. Only courses taken through an accredited school of pharmacy or medicine will be considered for possible substitution.

Pharm.D. Admissions

Admissions are competitive. It should be noted that applicants with overall or prerequisite GPAs below 3.0 are not admitted. Criteria used to evaluate candidates include academic performance, as measured by the grade point averages (GPA) for all the above-noted prerequisite courses and the cumulative GPA achieved in all prior college-level coursework, Pharmacy College Admissions Test (PCAT) scores (including a written essay), a personal interview, and letters of recommendation. All prerequisite courses must be taken at a U.S. or Canadian accredited institution of higher education and completed with a grade of C or better. Coursework completed outside the U.S. or Canada will not be considered for admission. Priority is given to qualified West Virginia residents, applicants who have performed the majority of their prerequisite coursework in a West Virginia college or university, and applicants who have already earned a bachelors degree. Careful consideration is given to those personal qualifications which bear upon the fitness of applicants for the study and practice of the profession of pharmacy.

All applicants must first file an initial electronic application with the Pharmacy College Application Service (PharmCAS). Instructions for completing the application are found on the PharmCAS website: http://www.pharmcas.org/. Application deadlines are subject to change; check PharmCAS, the School of Pharmacy website at http://pharmacy.hsc.wvu.edu or contact the School to verify current deadlines. Supplemental applications specific to the WVU School of Pharmacy will then be sent to selected candidates deemed qualified by the Committee on Admissions. A $50 application fee must accompany the supplemental application.

Each applicant who is recommended for acceptance is required to pay a deposit of $400 (if WV resident) or $800 (if non-WV resident) before his or her name is added to the official list of those accepted by the School of Pharmacy. If the applicant enrolls, this sum is applied to the first-semester tuition. If the applicant fails to enroll, this deposit is forfeited.

With enrollment in the School of Pharmacy, all students must comply with the immunization and diagnostic procedures required by the WVU Board of Governors, WVU, the WVU Robert C. Byrd Health Sciences Center, and the School of Pharmacy.

Complete information may be obtained from:

School of Pharmacy Office of Student Services
WVU Robert C. Byrd Health Sciences Center
P.O. Box 9500
Morgantown, WV 26506-9500
or from:
Office of Admissions WVU Robert C. Byrd Health Sciences Center P.O. Box 9815 Morgantown, WV 26506-9815

Pharmacy College Admission Test

Completion of the Pharmacy College Admission Test is a requirement for admission to the School. It is recommended that the student take this test in the summer or fall before making application for admission. Information concerning time and place of the test can be obtained from a pre-pharmacy advisor, the School of Pharmacy, or by writing:

 NCS Pearson, Inc. PCAT Customer Relations 19500 Bulverde Road San Antonio, TX 78259 1-800-622-3231 or (210) 339-8710 Fax 1-800-727-0811 or 1-800-999-5941 or http://www.PCATweb.info

Personal Interview

The Committee on Admissions requires a personal interview with selected candidates who qualify for a supplemental application. The Committee on Admissions will determine which applicants are to receive the supplemental application. Interviews are held during the spring semester at the WVU Robert C. Byrd Health Sciences Center in Morgantown.

Recommendations on Academic Performance

Two academic recommendations are required and must be provided by course instructors in any two of the pre-pharmacy science areas: biology, chemistry, math, and physics. The third recommendation may be provided by a variety of individuals. Please refer to the PharmCAS website for more detailed information.

Early Decision

The Early Decision program is a binding option for applicants who have decided that West Virginia University is the degree program of their first choice and that they will enroll if accepted. As an Early Decision applicant, you can apply to only one pharmacy degree program.

The Early Decision application deadline is typically the first of September. In addition to completing the PharmCAS application, you must arrange for PharmCAS to receive all of your official transcripts and fee by the September deadline. If your application, transcripts, or fee arrives after the deadline, PharmCAS will automatically change your file from early decision status to regular status.
You may be offered early admission, denied admission, or deferred to regular applicant status. **If you are offered admission as an Early Decision applicant, you are obligated to accept the offer and you will not be permitted to apply to other PharmCAS institutions.**If, however, you are denied admission as an Early Decision applicant, you may apply to other PharmCAS institutions for an additional fee. Refer to the PharmCAS application fee schedule to determine the cost to apply to each additional program. PharmCAS institutions will make admission decisions on early decision applicants by mid October.

Admission to Advanced Standing for Transfer Students

If space is available, students from other accredited schools of pharmacy may be admitted, provided they meet the prerequisite course requirements of the WVU School of Pharmacy, have at least a 2.5 professional grade point average, are in good academic and professional standing at the school of origin, and are eligible for continuation toward a degree in pharmacy at the school initially attended. Grades of D in professional courses cannot be transferred.

GENERAL EDUCATION CURRICULUM

Please use this link to view a list of courses that meet each GEC requirement. (http://registrar.wvu.edu/current_students/general_education_curriculum)

NOTE: Some major requirements will fulfill specific GEC requirements. Please see the curriculum requirements listed below for details on which GECs you will need to select.

General Education Curriculum

ENGL 101 & ENGL 102	Composition and Rhetoric and Composition and Rhetoric	3-6
or ENGL 103	Accelerated Academic Writing	
GEC 2A - Mathematics		3-4
GEC 2B - Natural and Physical Science		7-8
GEC 2C - Additional GEC 2A, B or C		3
GEC 3 - The Past and Its Traditions		3
GEC 4 - Issues of Contemporary Society		3
GEC 5 - Artistic Expression		3
GEC 6 - The Individual in Society		3
GEC 6F - First Year Seminar		1-3
GEC 7 - American Culture		3
GEC 8 - Western Culture		3
GEC 9 - Non-Western Culture		3
Total Hours		**38-45**

Degree Requirements

The awarding of a doctor of pharmacy degree to a student is approved by the dean of the School of Pharmacy after receipt of recommendations from the Academic and Professional Standards Committee. Candidates must meet the following criteria:

1. Meet the academic and professional standards, criteria, and requirements outlined in The Policy on Academic and Professional Standards Governing the Doctor of Pharmacy Degree at West Virginia University School of Pharmacy, which is available at the School of Pharmacy Office of Student Services and on the school's website
2. Satisfactorily complete all of the required coursework in a timely fashion, which normally will not exceed five years from the date of initial enrollment into the professional program
3. Pay all fees
4. Complete the last year's work in residence in this school
5. Be present at the commencement exercises unless excused by the dean of the School of Pharmacy in writing
6. Satisfactorily complete the required number of experiential rotations and demonstrate the attainment of minimum competencies
7. Complete 100 hours of volunteer community service.

Curriculum Requirements
PRE-PHARMACY REQUIREMENTS

Biochemistry Requirement

Select one of the following:		3-4
AGBI 410	Introductory Biochemistry	
BIOC 339	Introduction to Biochemistry	
BIOL 115	Principles of Biology (BIOL 115 preferred)	4
or BIOL 101	General Biology	
or BIOL 102	General Biology	
or BIOL 103	General Biology Laboratory	
or BIOL 104	General Biology Laboratory	
BIOL 117	Introductory Physiology	4
BIOL 215	Cell Biology for Pre-Pharmacy [*]	3
CHEM 115	Fundamentals of Chemistry	4
CHEM 116	Fundamentals of Chemistry	4
CHEM 233 & CHEM 235	Organic Chemistry and Organic Chemistry Laboratory	4
CHEM 234 & CHEM 236	Organic Chemistry and Organic Chemistry Laboratory	4
ECON 201	Principles of Microeconomics	3
ENGL 101	Composition and Rhetoric	3

ENGL 102	Composition and Rhetoric (ENGL 103 replaces ENGL 101 & 102)	3
Math Requirement		
Select one of the following:		3-8
MATH 150	Applied Calculus	
MATH 153 & MATH 154	Calculus 1a with Precalculus and Calculus 1b with Precalculus	
MATH 155	Calculus 1	
Microbiology Requirement		
Select one of the following:		3-4
AEM 341	General Microbiology	
AEM 401	Environmental Microbiology	
MICB 200	Medical Microbiology	
CSAD 270	Effective Public Speaking	3
STAT 211	Elementary Statistical Inference	3
or ECON 225	Elementary Business and Economics Statistics	
WVUE 191	First Year Seminar (or equivalent)	1
General Education Curriculum		
GEC Requirements #3, 5, 7, and 9		12
Total Hours		**64-71**

PHARMACY REQUIREMENTS

NBAN 301	Principles of Human Anatomy	3
PSIO 743	Fundamentals of Physiology	5
PHAR 714	Introduction to Community Rotation (or PHAR 818)	4
PHAR 717	Pharmacy Practice Experience 3 (or PHAR 822)	1
PHAR 719	Pharmacy Practice Experience 4 (or PHAR 832)	1
PHAR 729	Intro Institutional Rotation (or PHAR 838)	2
PHAR 734	Pharmacy Law and Ethics (or PHAR 859)	3
PHAR 774	Current Topics in Pharmacy (or PHAR 860)	1
PHAR 760	Acute Care Rotation 1	5
Select 1 of the following:		5
PHAR 761	Acute Care Rotation 2	
PHAR 763	Ambulatory Care Rotation 2	
PHAR 762	Ambulatory Care Rotation 1	5
PHAR 764	Elective Rotation 1	5
PHAR 765	Elective Rotation 2	5
PHAR 766	Selective Rotations	5
PHAR 770	Community Rotation	5
PHAR 772	Institutional Rotation	5
PHAR 777	Pharmacy Colloquium 2 (or PHAR 861)	1
PHAR 800	Pharmacy Practice and Management 1	4
PHAR 801	Drug Delivery	5
PHAR 802	Preparation of Pharmaceutical Products	2
PHAR 810	Pharm Practice & Management 2	4
PHAR 811	Foundational Pharmacy Skills	1
PHAR 812	Drug Chemistry and Biotechnology	3
PHAR 813	Biopharm and Pharmacogenomics	4
PHAR 814	Biochemical Pharmacology	4
PHAR 815	Self-Care	3
PHAR 820	Pharm Practice & Management 3	3
PHAR 823	Pulmonology	3
PHAR 824	Cardiology	5

PHAR 825	Nephrology	2
PHAR 826	Evidence-Based Practice	3
PHAR 830	Pharm Practice & Management 4	4
PHAR 833	Endocrinology	3
PHAR 834	Immunology	2
PHAR 835	Rheumatology/Pain	2
PHAR 836	Research in the Pharm Sciences	3
PHAR 840	Pharm Practice & Management 5	2
PHAR 843	Gastroenterology/Nutrition	3
PHAR 844	Infectious Diseases	3
PHAR 845	Neurology/Psychiatry	5
PHAR 848	Comp Assessment of Practice	2
PHAR 849	Amb Care Pharm Practice Exp	2
PHAR 853	Hematology/Oncology	4
PHAR 854	Special Populations	4
PHAR 858	Comp Assessment of Practice	4
Electives (only approved professionally related courses)		8
Total Hours		**158**

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours
NBAN 301	3	PHAR 811	1
PSIO 743	5	PHAR 812	2
PHAR 800	4	PHAR 813	5
PHAR 801	5	PHAR 814	4
PHAR 802	2	PHAR 815	3
		PHAR 810	4
		PHAR 714	4
	19		**23**

Second Year

Fall	Hours	Spring	Hours
PHAR 820	3	PHAR 719	1
PHAR 823	3	PHAR 830	4
PHAR 717	1	PHAR 833	3
PHAR 824	5	PHAR 834	2
PHAR 825	2	PHAR 835	2
PHAR 826	3	PHAR 836	3
Elective	2	PHAR 729	2
		Elective	2
	19		**19**

Third Year

Fall	Hours	Spring	Hours
PHAR 840	2	PHAR 853	4
PHAR 843	3	PHAR 854	4
PHAR 844	3	PHAR 858	4
PHAR 845	5	PHAR 859	3
Select 1 of the following:	2	Select course not yet completed:	2
PHAR 848		PHAR 848	
PHAR 849		PHAR 849	

Elective		2	Elective		2		
		17			**19**		

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
PHAR 860	1	PHAR 777	1	Complete 2 rotations from the following of those not yet completed:	10
Complete 3 rotations from the following:[*]	15	Complete 3 rotations from the following of those not yet completed:	15	PHAR 760	
PHAR 760		PHAR 760		PHAR 761	
PHAR 761		PHAR 761		PHAR 762	
PHAR 762		PHAR 762		PHAR 764	
PHAR 764		PHAR 764		PHAR 765	
PHAR 765		PHAR 765		PHAR 766	
PHAR 766		PHAR 766		PHAR 770	
PHAR 770		PHAR 770		PHAR 772	
PHAR 772		PHAR 772			
	16		**16**		**10**

Total credit hours: 158

[*]   Prior to beginning the experiential rotations, each student enrolled in the School of Pharmacy professional program must complete a minimum of eight credit hours of school of pharmacy elective courses or courses from a list of approved professionally-related electives as part of the pharmacy curriculum. Electives must be completed during the first three years of the four-year professional program. No course taken prior to admission into the School of Pharmacy may be used nor repeated to meet the elective requirements of the professional curriculum, and no reduction in elective requirements will be allowed for courses completed or degrees earned prior to enrollment in the program.

Areas of Emphasis Offered:

Clinical Pharmacy Practice Area of Emphasis Requirements

PHAR 776	Preparing Residency Applicants	2
Professional Development		
Select 1 course from the following:		1-3
PHAR 704	Introduction to Research	
PHAR 721	Advocacy and Leadership	
PHAR 743	Teach to Learn: Learn to Teach	
PHAR 744	Education Journal Club	
Clinical Development		
Select 1 course from the following:		2
PHAR 718	Pediatric Pharmacotherapy	
PHAR 748	Acute Care Case Studies	
PHAR 745	Critical Care Pharmacotherapy	
PHAR 751	Geriatrics	
Select 1 additional course from any of the above courses not already completed		1-3
Total Hours		**6-10**

ADDITIONAL REQUIREMENTS

Mentorship Program:

- Each student will be assigned a faculty mentor and meet regularly to discuss career goals, progression through the program, CV development, etc.
- All students will meet as a group monthly to discuss global issues and development topics.

Advanced Pharmacy Practice Experiences (APPE) Rotations:

- As part of the fourth year APPE program, students will be required to complete an individualized, approved plan of study, which must include at least four direct patient care rotation experiences and drug information.
- All student APPE schedules must comply with Accreditation Council for Pharmacy Education (ACPE) Standards.

Pharmacy Research Area of Emphasis Requirements

Complete 6-12 credits from the following: 6-12

PHAR 704	Introduction to Research
PHAR 749	Pharmaceutical Investigations
PHAR 797	Research
PHAR 764	Elective Rotation 1 (Must be a Research Elective)
or PHAR 765	Elective Rotation 2
PHAR 783	Pharmacy Cell Biology Seminar
PHAR 784	Pharmacology Journal Club
PHAR 794	Seminar
PHAR 779	Drugs: Bench to Market
Written Thesis	
Oral Presentation and Defense	

Total Hours   **6-12**

ADDITIONAL REQUIREMENTS

- Written thesis: An honor's thesis style write up of the work is distributed to committee members at least three weeks prior to the defense.
- Oral presentation and defense: An oral presentation of the research is open to everyone, followed by a defense of the work for the certification committee.

College of Physical Activity and Sport Sciences

Degrees Offered

- Master of Science
- Doctor of Education
- Doctor of Philosophy

The College of Physical Activity and Sport Sciences is organized into two departments: the Department of Coaching and Teaching Studies and the Department of Sport Sciences. The Department of Coaching and Teaching Studies includes the programs in athletic coaching education and physical education teacher education. The Department of Sport Sciences includes the programs in athletic training, sport and exercise psychology, and sport management.

The Ph.D. program in kinesiology administered through the College of Physical Activity and Sport Sciences has two major areas: sport and exercise psychology and coaching and teaching studies (designed for students interested in athletic coaching education or physical education teacher education). The college's master's program allows specialization in athletic coaching education, athletic training, physical education teacher education and sport management leading to a master of science in physical education. The master's degree program in teacher education is run using a hybrid distance education format with courses offered in the summer on campus and courses during the academic year offered online. The master's degree programs in athletic coaching education and sport management have both on-campus and hybrid distance education cohorts (the hybrid distance education cohorts in each of these majors offer courses in the summer on campus and offer courses during the academic year online). The master's program in sport and exercise psychology is only available as part of the doctoral program (i.e., students must be accepted into the Ph.D. program in order to be enrolled in the masters degree program).

The facilities of the College of Physical Activity and Sport Sciences include the gymnasium, dance studio, and swimming pool in E. Moore Hall; a gymnasium and fitness center in Stansbury Hall; bowling lanes and billiard area in the Mountainlair; indoor track and sports area in the Shell Building; outdoor areas including the stadium, tennis courts, soccer and field hockey fields, and outdoor track; and the Natatorium with its pool and diving well. The College of Physical Activity and Sport Sciences moved into a new building bordering the Student Recreation Center and intramural fields in July of 2014. The new building has 8 technology based classrooms, three large seminar/conference rooms, a 46 seat computer lab, research space, a teacher behavior laboratory, fitness room, multipurpose room, and faculty offices. Additional faculty and staff offices are in E. Moore Hall, Stansbury Hall, the Natatorium, and the Shell Building.

For additional information, contact the Graduate Coordinator, College of Physical Activity and Sport Sciences, 375 Birch St., P.O. Box 6116, West Virginia University, Morgantown, WV 26506-6116. Telephone (304) 293-0850.

ADMINISTRATION

DEANS OFFICE

- Dana D. Brooks - Ed.D. (West Virginia University)
  Dean
- James C. Hannon - Ph.D. (Florida State University)
  Assistant Dean

DEPARTMENT CHAIRS

- Jack Watson - Ph.D. (Florida State University)
  Chair, Sport Sciences
- Valerie Wayda - Ed.D. (West Virginia University)
  Chair, Coaching and Teaching Studies

PROFESSORS EMERITI

- William Alsop - Ed.D. (West Virginia University)
- William Bonsall - M.S. (West Virginia University)
- J. William Douglas - Ph.D. (Ohio State University)
- Patricia K. Fehl - Ed.D. (Indiana University)
- Andrew Hawkins - Ph.D.
  (Ohio State University)
- Lynn Housner - Ph.D.
  (University of Pittsburgh)
- Andrew Ostrow - Ph.D. (University of California, Berkeley)

- Beatrice Hurst - M.A. (Columbia University)
- Daniel Ziatz - Ph.D.
  (University of Utah)

Degree Designation Learning Goals

MASTER OF SCIENCE (MS)

A mission of the College of Physical Activity and Sport Sciences is to prepare our students to become effective practitioners and leaders in their respective fields and to enhance the quality of life of the citizens of West Virginia and beyond. The college offers traditional on-campus program emphasis areas in Athletic Coaching Education, Athletic Training, and Sport Management. In addition, the college offers online degree emphasis areas in Athletic Coaching Education, Physical Education Teacher Education, and Sport Management. These programs are characterized by curricular experiences which are designed to broaden perspectives, enrich awareness, deepen understanding, establish disciplined habits of thought, prepare for meaningful careers, and thus help individuals become informed, responsive and productive citizens.

Students in Masters of Science degree programs in CPASS

- Demonstrate skill to utilize various forms of assessment to inform professional practice
- Critically evaluate research to understand best practices in chosen field of study
- Develop an understanding of current issues effecting professional practice
- Engage in professional development to improve practice in field

DOCTOR OF EDUCATION (EDD)

A mission of the College of Physical Activity and Sport Sciences is to prepare our students to become effective practitioners and leaders in their respective fields and to enhance the quality of life of the citizens of West Virginia and beyond. The college offers a Doctorate of Education in Physical Education Teacher Education. These programs are characterized by curricular experiences which are designed to broaden perspectives, enrich awareness, deepen understanding, establish disciplined habits of thought, prepare for meaningful careers, and thus help individuals become informed, responsive and productive citizens.

Students in the Doctor of Education program in CPASS

- Develop leadership and advocacy skills for professional practice
- Demonstrate teaching skills within area of professional practice
- Interpret and applying knowledge to enhance professional practice
- Demonstrate interdisciplinary knowledge in kinesiology

DOCTOR OF PHILOSOPHY (PHD)

A mission of the College of Physical Activity and Sport Sciences is to prepare our students to become effective practitioners and leaders in their respective fields and to enhance the quality of life of the citizens of West Virginia and beyond. The college offers a Doctorate of Kinesiology with an emphasis in Coaching and Teaching Studies or Sport and Exercise Psychology. These programs are characterized by curricular experiences which are designed to broaden perspectives, enrich awareness, deepen understanding, establish disciplined habits of thought, prepare for meaningful careers, and thus help individuals become informed, responsive and productive citizens.

Students in Doctor of Philosophy program in CPASS

- Generate new knowledge based upon theoretical underpinnings
- Synthesize information in an area of study and effectively communicate in oral and written form
- Demonstrate ability to prepare future practitioners through teaching, scholarly and professional development activities
- Evaluate literature and engage in research appropriate to chosen area of emphasis

Athletic Training

Master of Science in Athletic Training

The master of science degree in athletic training is completed over a two-year period, although a one-year option is available. Since this is a post-certification master's program, all students must be NATA-BOC certified or certified eligible to be considered for admission. Those in the two-year program complete 38 hours of graduate coursework, which includes a research (thesis or research project) or concentration option. Graduate assistantships are available for the NATA-BOC certified and other qualified individuals in the two-year program. The one-year program requires completion of 35 graduate credit hours.

The review and selection process for admittance to the graduate athletic training program and graduate assistantships run concurrently and begin in late December/early January and continue until all positions are filled. Only those applicants with complete files will be considered for admission to the program and for graduate assistantships. Finalists will be contacted for an on-campus personal interview starting in January.

FACULTY
ASSOCIATE PROFESSORS

- Damien Clement - Ph.D.
  (West Virginia University)
- Michelle Sandrey - Ph.D., ATC (University of Kansas)
  Graduate Program Director
- Vincent G. Stilger - HSD, ATC (Indiana University)
  Undergraduate Program Director

ADJUNCT ASSOCIATE PROFESSOR

- John C. Spiker - M.Ed. (University of Pittsburgh)

CLINICAL INSTRUCTORS

- Brittany Arnold, ATC - M.S. (University of Pittsburgh)
- Allison Hetrick - M.Ed. (University of Cincinnati)
- Amy Hile, ATC - M.A. (University of Connecticut)
- David Kerns - M.S. (Ohio University)
- Randall Meador - M.S. (West Virginia University)
- Christopher Worrell, ATC - MTA (George Washington University)

LECTURER

- Greg Dahmer - M.A. (West Virginia University)

ADMISSION CRITERIA

- Undergraduate degree grade point average (2.75 minimum for regular status) from an accredited institution
- Three letters of recommendation
- Resume
- Graduate Record Examination (300 minimum, qualitative and verbal together)
- Candidate must be NATA-BOC certified or certified eligible

Degree Requirements

A grade of C or higher must be earned in all major courses

ATTR 618	Anatomy Laboratory	3
ATTR 620	Athletic Training Practicum 1	1
ATTR 640	Critical Thinking in Injury Assessment	3
ATTR 621	Athletic Training Practicum 2	1
ATTR 622	Athletic Training Practicum 3	1
ATTR 623	Athletic Training Practicum 4	1
ATTR 625	Science and Theory of Rehabilitation	3
ATTR 626	Low Back and Overuse Pathology	3
ATTR 627	Biomechanics	3
ATTR 650	Medical and Surgical Aspects of Athletic Training	3

ATTR 655	Integrated Functional Human Performance	3
SEP 615	Research Methodology in Physical Education	3
SEP 723	Psychological Aspects of Sport Injury	3
SEP 726	Advanced Measurement and Research in Physical Education	3
Select one of the following Thesis, Research Project, or Concentration options:		4
Thesis		
ATTR 698	Thesis or Dissertation (2 hours each semester for a total of 4 hours)	
Research Project		
ATTR 697	Research (Total of 3 hours)	
ATTR 695	Independent Study (1 hour)	
Concentration		
ATTR 685	Field Concentration 1 (2 hours each semester for a total of 4 hours)	
ATTR 686	Field Concentration 2	
Total Hours		**38**

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours
SEP 615	3	ATTR 621	1
ATTR 618	3	ATTR 627	3
ATTR 620	1	ATTR 650	3
ATTR 640	3	SEP 726	3
	10		**10**

Second Year

Fall	Hours	Spring	Hours
ATTR 622	1	ATTR 623	1
ATTR 625	3	ATTR 626	3
SEP 723	3	ATTR 655	3
Select from the following:	2	Select from the following:	2
ATTR 697		ATTR 695	
ATTR 698		ATTR 697	
ATTR 685		ATTR 698	
		ATTR 686	
	9		**9**

Total credit hours: 38

Coaching and Sport Education

Master Degree

Using the long-term athlete development model as a framework, the **Coaching and Sport Education** master's degree provides a strong foundation in the science of coaching with multiple and varied practical experiences, through the Lab, volunteering, or formal internships. This degree is for those who want to coach athletes at highly competitive levels and/or who are interested in coaching education and the preparation of coaches.

Students complete 39 credit hours over five semesters (fall, spring, summer, fall, and spring) with 24 hours of core classes and then students select one of two tracks for the remainder of the courses (15 hours) depending on their career goals. The tracks (or areas of emphasis) are:

- **Performance Coaching** which focuses on coaching collegiate or individuals at the elite level; selected courses focus on evaluating one's coaching methods.
- **Science of Coaching** which emphasizes coaching education and the preparation of coaches; students will complete a research project or thesis depending upon the level of specialization on a given topic.

The curriculum aligns with NASPE's (2006) *National Standards for Sport Coaches* (2nd edition).

FACULTY

ASSOCIATE PROFESSORS
- Kristen Dieffenbach - Ph.D. (University of North Carolina, Greensboro)
- Valerie Wayda - Ed.D. (West Virginia University)
  Chair, Coaching and Teaching Studies

ASSISTANT PROFESSORS
- Jason Bishop - PhD (University of Virginia)
- Ryan Flett - Ph.D. (Michigan State University)

TEACHING ASSISTANT PROFESSOR
- Roch King - PhD (Temple University)
- Clayton Kuklick - PhD (University of Southern Mississippi)

ADJUNCT INSTRUCTORS
- Kathy Ginter - Ph.D. (University of Tennessee)
- Jerry Handley - M.S. (West Virginia University)

ASSOCIATE PROFESSOR EMERITUS
- Daniel Ziatz

Admission Criteria

The following criteria are used to evaluate applications for admission to the ACE master's programs:

- Undergraduate degree grade point average (2.75 minimum for regular status) from an approved institution
- Minimum of two references (three references preferred)
- Resume emphasizing your coaching/sport experiences
- Professional goal statement (one to two pages on professional background, goals, and reasons for pursuing the master's degree)

Note: Students who do not meet the 2.75 grade point average requirement may be admitted as a provisional graduate student only if their GPA is between 2.50 and 2.75. If a student is admitted as a provisional student they are required to attain a 3.0 GPA in their first 12 hours of adviser approved course work in order to remain in the program and to be reclassified as a regular graduate student.

Applications must be submitted ONLINE to the WVU Admissions Office along with your official undergraduate transcripts. Apply online at the WVU Admissions website www.wvu.edu.. Incomplete applications (those without all required materials and documentation) will not be accepted.

Priority Deadline is February 1st for students who would like an early admission decision.

Application Deadline is March 1st for summer admission with admission decision available by April 1st. Program will continue to accept applications until all seats are filled.

No more than twelve graduate hours may be taken toward the master's degree as a non-degree seeking graduate student.

Degree Requirements

Core Classes (24 hours)

ACE 610	Training Theories for Coaches	3
ACE 630	Coaching Education Administration	3
ACE 639	Create Healthy Competitive Environments	3
ACE 650	Sport Movement Analysis	3
ACE 688	Coaching Techniques	3
SEP 620	Individual Interaction in Sport and Physical Activity	3
SEP 640	Psychology of Sport and Physical Activity	3
SM 627	Legal Issues in Sport Administration	3
Complete an Areas of Emphasis		15
Total Hours		**39**

Performance Coaching Area of Emphasis Requirements

ACE 602	Action-based Research for Coaching	3
ACE 661	Strength and Conditioning Methods for Coaches	3
SM 660	NCAA Compliance and Current Issues	3
Select one of the following:		3
ACE 665	Strength and Conditioning Program Design Coach	
ACE 663	Advanced Strength and Conditioning Coaching Techniques	
ACE 685	Coaching Internship	3
Total Hours		**15**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
ACE 688	3	ACE 610	3	ACE 650	3
SEP 640	3	ACE 661	3		
ACE 602	3	SM 660	3		
	9		**9**		**3**

Second Year

Fall	Hours	Spring	Hours
ACE 639	3	ACE 630	3
SM 627	3	SEP 620	3
ACE 685 or 665[*]	3	ACE 685 or 663[*]	3
	9		**9**

Total credit hours: 39

[*]   Coaching internship is completed the semester when coaching a sport.

Science of Coaching Area of Emphasis Requirements

ACE 641	Positive Youth Development in Sport	3
ACE 697	Research	3
EDP 613	Statistical Methods 1	3
SEP 615	Research Methodology in Physical Education	3
Select one of the following:		3
ACE 695	Independent Study	
PET 698	Thesis or Dissertation	
Total Hours		**15**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
ACE 688	3	ACE 610	3	ACE 650	3
SEP 640	3	ACE 641	3		
SEP 615	3	EDP 613	3		
	9		**9**		**3**

Second Year

Fall	Hours	Spring	Hours
ACE 639	3	ACE 630	3
SM 627	3	SEP 620	3
ACE 695 or 697	3	ACE 697 or PET 698	3
	9		**9**

Total credit hours: 39

Coaching and Teaching Studies

Doctorate Degree

WVU is the only institution in the state of West Virginia to offer a Doctorate degree (Ph.D. and an Ed.D.) majoring in Coaching and Teaching Studies. The doctorate degree is designed to educate students to become leaders in specialized areas of the industry (i.e., higher education, educational agencies, sport organizations and in school systems).

Upon completion of the doctorate degree each graduate should:

- know theories and best practices surrounding the disciplines of Athletic Coaching Education and Physical Education Teacher Education.
- engage in and promote evidence-based practices through the application of rigorous methodology.
- know how to identify and analyze practice-based problems in Coaching and Teaching Studies and generate real world solutions.
- engage in reflective practice in order to implement change in their professional practice and within their organizations.
- provide effective leadership to their respective organizations.

FACULTY

PROFESSOR

- James Hannon - PhD (Florida State University)
  Assistant Dean of Academic Affairs and Research

ASSOCIATE PROFESSORS

- Sean Bulger - EdD (West Virginia University)
- Kristen Dieffenbach - PhD (University of North Carolina at Greensboro)
- Stephen Harvey - PhD (Oregon State University)
- Valerie Wayda - EdD (West Virginia University)
  Chair, Coaching & Teaching Studies

ASSISTANT PROFESSORS

- Jason Bishop - PhD (University of Virginia)
- Ryan Flett - PhD (Michigan State University)
- Emily Jones - PhD (University of Georgia)
- Andrea Taliaferro - PhD (University of Virginia)

TEACHING ASSISTANT PROFESSOR

- Roch King - PhD (Temple University)
- Clayton Kuklick - PhD (University of Southern Mississippi)

CLINICAL ASSOCIATE PROFESSOR

- Eloise Elliott - PhD (Virginia Polytechnic Institute and State University)

Students can be admitted to the Ed.D. or Ph.D. program with either a bachelor's or master's degree. Those admitted with a bachelor's degree will obtain either a Coaching and Sport Education or a Physical Education Teacher Education masters degree at WVU as part of their doctoral program of studies.

Applicants must arrange for official copies of transcripts and test scores to be sent directly to the WVU Office of Admissions at PO Box 6009, Morgantown, WV 26506-6009. The additional screening materials necessary to complete your doctoral application (submitted online as part of your GEMS admission application) are:

1. Resume/CV
2. Statement of Professional Goals and Research Interests *
3. Letters of Recommendations: 3 required**
4. Test Requirements: GRE (taken within 5 years of application). Preferred scores of 151 Verbal; 153 Quantitative Reasoning; 3.5 Analytical Writing or higher. Provisional admission decisions can be made based upon faculty discretion.
5. International applicants TOEFL: 550 paper, 79 internet based

*   The Statement of Professional Goals and Research Interests should be 2-3 pages in length, double-spaced. Describe your academic and professional background, professional goals, possible areas of research, any completed research projects and how and why you are a good fit for the program. It should be tailored to WVU and your specific program of interests.

**   A minimum of two letters of recommendation should speak directly to the candidate's academic skills and professional potential and abilities.

NOTE: Provisional admission decisions can be made based upon faculty discretion.

Applicants are strongly encouraged to contact WVU faculty members, schedule an on-campus visit, or conference call prior to submitting application to get a feel for faculty, staff, students, and the WVU experience.

Priority deadline is January 15th. Complete applications received by the priority deadline will be eligible for university fellowships consideration and will receive priority review. Applications after priority deadline will be reviewed on a rolling basis and admissions will be made until all seats are filled.

Degree Requirements

All students must complete the written and oral qualifying exam within the first two semesters of the program. All students must also pass a comprehensive exam as designated by the candidate's doctoral committee, pass the dissertation prospectus, and successfully defend the dissertation.

CURRICULUM REQUIREMENTS

Minimum grade of C required unless otherwise noted.

Minimum GPA of 3.0 required.		
Core Clases		12
PET 735	Reading Research 1	
PET 741	Research in Kinesiology	
PET 745	Physical Education/Teaching Curriculum Development and Evaluation	
SEP 765	Dissertation and Thesis Seminar	
Statistics and Research Methods		15
Minimum grade of B required in all courses.		
EDP 612	Introduction to Research	
EDP 613	Statistical Methods 1	
EDP 614	Statistical Methods 2	
SCFD 615	Qualitative Research Methods	
Elective - Advanced Statistic/Research Mehtods		
Elective - Advanced Statistic/Research Mehtods		
Cognate Specialization		12
Minimum grade of B required in all courses.		
Electives		12
Dissertation Research		12
PET 797	Research	
PET 798	Thesis or Dissertation	
Benchmarks		
Qualifying Exam		
Comprehensive Exam		
Dissertaion Proposal Defense		
Dissertation Defense		
Total Hours		**63**

PERFORMANCE STANDARDS

Credit for courses in which a grade of lower than C is obtained will not count toward satisfying program requirements for both the Ed.D. or Ph.D. Students who fail to maintain a 3.0 GPA will be placed on probation and must bring their GPA up to 3.0 during the following semester. If a student fails to bring his or her GPA up to 3.0, they will be dismissed from the program. Student research will be graded by the PETE faculty each semester. Research and grades will be satisfactory or unsatisfactory (S/U).

Degree Requirements

For the Ph.D. program, the candidate must complete a series of research benchmarks beyond the required coursework. All students must complete the written and oral qualifying exam within the first two semesters of the program. All students must also pass a comprehensive exam as designated by the candidate's doctoral committee, pass the dissertation prospectus, and successfully defend the dissertation. In addition, Ph.D. candidates must submit three publishable articles. The acceptability (publishable) of the articles will be determined by the candidate's doctoral committee.

CURRICULUM REQUIREMENTS

Minimum grade of C required unless otherwise noted.

Minimum GPA of 3.0 required.

Core Clases		12
PET 735	Reading Research 1	
PET 741	Research in Kinesiology	
PET 745	Physical Education/Teaching Curriculum Development and Evaluation	
SEP 765	Dissertation and Thesis Seminar	
Statistics and Research Methods		18
Minimum grade of B required in all courses.		
EDP 612	Introduction to Research	
EDP 613	Statistical Methods 1	
EDP 614	Statistical Methods 2	
SCFD 615	Qualitative Research Methods	
Elective - Advanced Statistic/Research Mehtods		
Elective - Advanced Statistic/Research Mehtods		
Cognate Specialization		12
Minimum grade of B required in all courses.		
Dissertation Research		18
PET 797	Research	
PET 798	Thesis or Dissertation	
Benchmarks		
Qualifying Exam		
Comprehensive Exams		
Dissertation Proposal Defense		
1st Research Paper Submitted		
2nd Research Paper Submitted		
Dissertation Defense & 3rd Research Paper Submitted (based on dissertation findings)		
Total Hours		**60**

PERFORMANCE STANDARDS

Credit for courses in which a grade of lower than C is obtained will not count toward satisfying program requirements for both the Ed.D. or Ph.D. Students who fail to maintain a 3.0 GPA will be placed on probation and must bring their GPA up to 3.0 during the following semester. If a student fails to bring his or her GPA up to 3.0, they will be dismissed from the program. Student research will be graded by the PETE faculty each semester. Research and grades will be satisfactory or unsatisfactory (S/U).

Physical Education Teacher Education

Master Degree

The blended Physical Education Teacher Education (PETE) Master of Science program is designed for physical education professionals who already possess initial teaching certification in physical education (or related field). This format is ideal for teachers and coaches with demanding schedules who need to balance work, family, and continue their education. The hybrid format allows students to complete online courses during spring and fall semesters and blended courses (online and two weeks on-campus) during the summers. Practical applications of research-based and developmentally appropriate teaching practices are embedded within online and on-campus courses.

Students enrolled in the WVU PETE Master's program evaluate their teaching effectiveness using research informed methods, examine standards-based curriculum and assessment strategies, explore the possibilities of technology in PE, engage with learners with diverse physical, mental, and emotional needs, and extend their understanding of fitness education for K-adult learners.

The program has been approved as a part of Southern Regional Electronic College and therefore will be offered at **IN-STATE TUITION**. This program is **NOT** a teaching licensure program.

FACULTY

PROFESSOR

- James Hannon - Ph.D. (Florida State University)
  Assistant Dean of Academic Affairs and Research

ASSOCIATE PROFESSOR

- Sean Bulger - Ed.D. (West Virginia University)
- Stephen Harvey - Ph.D. (Oregon State University)

ASSISTANT PROFESSORS

- Emily Jones - Ph.D. (University of Georgia)
- Andrea Taliaferro - Ph.D. (University of Virginia)

CLINICAL PROFESSOR

- Eloise Elliott - Ph.D. (Virginia Polytechnic Institute and State University)
  Ware Distinguished Professor

ADJUNCT INSTRUCTOR

- Jack Sager - Ed.D. (West Virginia University)

PROFESSOR EMERITUS

- Linda Carson
  Ware Distinguished Professor
- Lynn Housner
- Andrew Hawkins

ASSOCIATE PROFESSOR EMERITUS

- Bruce Wilmoth

Required criteria for PETE program admission include the following:

1. Possess a teaching license (or be eligible for one)
2. Minimum of a 2.75 undergraduate (on a 4-point scale)
3. Two letters of recommendation

Note: Students who do not meet the 2.75 grade point average requirement may be admitted as a provisional graduate student only if their GPA is between 2.50 and 2.75. If a student is admitted as a provisional student they are required to attain a 3.0 GPA in their first 12 hours of adviser approved course work in order to remain in the program and to be reclassified as a regular graduate student.

Applications must be submitted ONLINE to the WVU Admissions Office along with your official undergraduate transcripts. Apply online at the WVU Admissions website www.wvu.edu. . Incomplete applications (those without all required materials and documentation) will not be accepted.

Priority Deadline is February 1st for students who would like an early admission decision.

Application Deadline is March 1st for summer admission with admission decision available by April 1st. Program will continue to accept applications until all seats are filled.

No more than twelve graduate hours may be taken toward the master's degree as a non-degree seeking graduate student.

Degree Requirements

PET 605	Professional Issues in Physical Education	3
PET 615	Research Methodology in Physical Education	3
PET 665	Curriculum in Physical Education	3
PET 645	Standards-Based Assessment in Physical Education	3
PET 672	Advanced Laboratory in Physical Education	4
PET 673	Instructional Technology in Sport and Physical Education	3
PET 680	Theory of Fitness Education	3
PET 681	Motor Development in Special Populations	3
PET 683	Principles of Effective Teaching	3
PET 685	Physical Education Supervision Techniques	3

PET 686	Teaching Practicum	3
PET 693	Special Topics (1 credit courses repeated 3 times)	3
Total Hours		**37**

SUGGESTED PLAN OF STUDY

First Semester	Hours
PET 665	3
PET 693::Special Topics	1
PET 683	3
	7

Second Semester	Hours
PET 645	3
PET 672	1
	4

Third Semester	Hours
PET 615	3
PET 672	1
	4

Fourth Semester	Hours
PET 681	3
PET 693::Special Topics	1
PET 673	3
	7

Fifth Semester	Hours
PET 680	3
PET 672	1
	4

Sixth Semester	Hours
PET 685	3
PET 672	1
	4

Seventh Semester	Hours
PET 605	3
PET 686	3
PET 693::Special Topics	1
	7

Total credit hours: 37

Sport and Exercise Psychology

Doctoral Program

Graduate studies within the College of Physical Activity and Sport Studies can lead to a Ph.D. in Kinesiology with a major in Sport and Exercise Psychology (SEP). The students admitted into the SEP doctoral program also complete a master's degree in community counseling. Students can be admitted into the doctoral program in SEP with either a baccalaureate degree or a master's degree.

The sport and exercise psychology program has procedures and requirements which are specific to the program. In general, they include the following:

- Selection of an advisor (The program faculty, in consultation with the student, assigns an advisor to assist in planning the student's program.)
- Selection of a plan of studies committee (The student, in consultation with the advisor, selects a plan of studies committee. This committee assists the students in developing a plan of studies which will include relevant coursework, evaluation of competencies, and an estimated time frame for its completion.)
- Plan of studies approval (The plan of studies committee will meet with the student by March 1st of the first year in the program to ratify the plan. The approved plan of studies functions as the document against which completion of program requirements is assessed.)

- Completion of required coursework (The student completes the coursework required by the plan of studies. The number of credit hours required and the time required to complete the coursework varies, but a minimum of three years [six semesters] of coursework is normally required for students entering with a master's degree.)
- Comprehensive examination (At the completion of coursework, the student will take a written and oral comprehensive examination specified by the program. The purpose of the examination is to assess competency in research and content areas relevant to the program. The length of the examination varies.)
- Prospectus defense (Following the successful completion of the comprehensive examination, the student will write and defend a prospectus for the dissertation. The prospectus will be evaluated by the student's dissertation committee. The dissertation committee is often identical to the student's plan of studies committee, though additions or changes may be made to the plan of studies committee at this time in order to constitute the dissertation committee.)
- Admission to candidacy (Once the comprehensive examination and prospectus defense are successfully completed, the student is admitted to candidacy. Admission to candidacy is permission to proceed with dissertation research as described in the prospectus.)
- Defense of the dissertation (The student will write and orally defend an original research project as described in the prospectus. Successful defense will be determined by the quality of the written document as well as by the quality of the oral defense in a forum open to the academic community. All members of the student's dissertation committee must be present for the dissertation defense. Successful defense of the dissertation with submission to a professional journal results in the awarding of the degree. The dissertation must be successfully defended within five years of admission to candidacy.)
- During the Ph.D. program, students are required to submit multiple works to peer-reviewed journals and national conferences.

FACULTY
PROFESSORS
- Dana D. Brooks - Ed.D. (West Virginia University)
  Dean
- Edward Etzel, Jr. - Ed.D. (West Virginia University)
- Jack Watson - Ph.D. (Florida State University)
  Chair, Sport Sciences
- Samuel Zizzi - Ed.D. (West Virginia University)

ASSOCIATE PROFESSOR
- Peter Giacobbi - Ph.D. (University of Tennessee-Knoxville)
- Damien Clement - Ph.D.
  (West Virginia University)

ASSISTANT PROFESSORS
- Dana Voelker - Ph.D.
  (Michigan State University)

Application Deadline

Application procedures for the Ph.D. in Kinesiology with a major in Sport and Exercise Psychology must submit their online admission application to the Office of Admissions website (www.wvu.edu) to be processed by the December 15 deadline for fall admission. Students must also submit an official undergraduate transcript(s) and application fee (online). Supplemental required materials (GRE scores, resume, goal statement, and three letters of recommendation) must also be uploaded and submitted online. Once all the materials have been received, the admission application will be ready for the screening committee to review after the deadline date. Incomplete applications will not be reviewed. International applicants are strongly encouraged to submit their admission application and supplemental materials by October 1 to allow extra time for processing. Students who seek a graduate assistantship should complete and submit a Graduate Assistantship Application no later than February 1. The GA application can be downloaded by visiting the college web site at cpass.wvu.edu. Click on the "student" link at the top, and the application is in a PDF format at the bottom of the first page.

Admission Criteria

The following criteria is used to evaluate applicants for admission to the doctoral program:

- Undergraduate degree grade point average of 3.0 from an approved institution
- Master's degree grade point average of 3.5 from an approved institution (if applicable)
- Graduate Record Examination score - Verbal, Quantitative, and Writing percentiles above fifty percent. (Student files will be reviewed with scores lower than fifty percent.)
- Three letters of recommendation (required to be submitted online - NO HARD COPIES)

- Professional goal statement (one-two page paper on professional backgrounds, goals, and reasons for pursuing doctoral degree at WVU) to be submitted online
- Curriculum vitae to be submitted online
- Personal interview

Degree Requirements

Students who are accepted into the Ph.D program in Sport and Exercise Psychology will receive the M.S. degree upon completing the requirements described below.

SEP 640	Psychology of Sport and Physical Activity	3
SEP 615	Research Methodology in Physical Education	3
SEP 726	Advanced Measurement and Research in Physical Education	3
SEP 765	Dissertation and Thesis Seminar	3
SEP 697	Research	3
SEP 698	Thesis or Dissertation	3
COUN 501	Counseling Theory and Techniques 1	3
COUN 606	Counseling Theory and Techniques 2	3
Advisor Approved Electives		12
Total Hours		**36**

Additional course requirements needed to meet 36 minimum total credits will be determined in consultation with the student's advisor. Refer to the Sport and Exercise Psychology Ph.D. Suggested Plan of Study.

Degree Requirements

Students will form a Plan of Study committee and have their Plan of Study approved by March 1 of their first year in the program. This Plan of Study will outline all of the courses needed to complete the requirements for the M.S. in Sport and Exercise Psychology (if necessary) and the M.A. in Counseling as well as the Ph.D in Sport and Exercise Psychology as both Masters degrees are required to earn the Ph.D.

CURRICULUM REQUIREMENTS

Disciplinary Core

SEP 719	Group Influences in Sport [*]	3
SEP 720	Psychological Sport Performance Enhancement [*]	3
SEP 721	Counseling College Student-Athletes [*]	3
SEP 722	Exercise and Health Psychology [*]	3
EPID 766	Physical Activity Epidemiology	3
SEP 723	Psychological Aspects of Sport Injury	3
SEP 727	Ethical/Legal Issues in sport Psychology	3
Professional Practice Core		
Teaching Practicum		6
SEP 690	Teaching Practicum (Repeated)	
SEP 686	Internship in Sport and Exercise Psychology	6
SEP 647	Supervision Sport Psychology	3
Statistics/Research Design Disciplinary Core		
EDP 614	Statistical Methods 2	3
Advisor Approved Introductory Graduate-level course in Research Methods		3
EDP 711	Multivariate Methods 1	3
Research Practice Core		
SEP 697	Research	6
or SEP 797	Research	
SEP 798	Thesis or Dissertation	3
Master of Science in Sport and Exercise Psychology		36
Master of Arts in Counseling or related field (credits determined by MA program)		
Research Publication Requirement		
Submit 2 data-based articles for publication in peer-reviewed journal		

Submit an additional article (literature review or data-based) for publication in a peer-reviewed journal or present a data-based study at a national conference (published abstract)

Oral Defense

Comprehensive Examination

Prospectus Defense

Dissertaion Defense

Total Hours **90**

Sport Coaching

Master Degree

The **Sport Coaching** degree is designed for individuals who have a consistent coaching placement such as teachers who coach at the scholastic level or at the community/club levels. The curriculum focuses on the knowledge and skills to be an effective coach with youth athletes.

The online ACE master's program is a 39 credit-hour that can be completed in two years plus summer. During year one and-a-half, students complete 6 hours each term (summer, fall, spring, summer). Across the next three terms (fall, spring, summer) students complete 4 credit hours and then complete the coaching internship during the term which the sport they coach is in session (e.g., fall sport then the student takes 7 credits and only 4 credits in the spring & summer). Summer classes consist of online work with students coming to Morgantown campus for a 2-week period for face-to-face meetings. Fall and spring courses are completed in an online format.

The curriculum is aligned with NASPE's (2006) *National Standards for Sport Coaches* (2nd edition). The program has been approved as a part of Southern Regional Electronic College and therefore will be offered at **IN-STATE TUITION**.

FACULTY
ASSOCIATE PROFESSORS
- Kristen Dieffenbach - Ph.D. (University of North Carolina at Greensboro)
- Valerie Wayda - Ed.D. (West Virginia University)
  Chair, Coaching & Teaching Studies

ASSISTANT PROFESSORS
- Jason Bishop - Ph.D. (University of Virginia)
- Ryan Flett - Ph.D. (Michigan State University)

TEACHING ASSISTANT PROFESSOR
- Roch King - Ph.D. (Temple University)
- Clayton Kuklick - Ph.D. (University of Southern Mississippi)

ADJUNCT INSTRUCTORS
- Kathy Ginter - Ph.D. (University of Tennessee)
- Jerry Handley - M.S. (West Virginia University)

ASSOCIATE PROFESSOR EMERITUS
- Daniel Ziatz

Admission Criteria

The following criteria are used to evaluate applications for admission to the master's program:

- Undergraduate degree grade point average (2.75 minimum for regular status) from an approved institution
- Minimum of two references (three references preferred)
- Resume emphasizing your coaching/sport experiences
- Professional goal statement (one to two pages on professional background, goals, and reasons for pursuing the master's degree

Note: Students who do not meet the 2.75 grade point average requirement may be admitted as a provisional graduate student only if their GPA is between 2.50 and 2.75. If a student is admitted as a provisional student they are required to attain a 3.0 GPA in their first 12 hours of adviser approved course work in order to remain in the program and to be reclassified as a regular graduate student.

Applications must be submitted ONLINE to the WVU Admissions Office along with your official undergraduate transcripts. Apply online at the WVU Admissions website www.wvu.edu. Incomplete applications (those without all required materials and documentation) will not be accepted.

Priority Deadline is February 1st for students who would like an early admission decision.

Application Deadline is March 1st for summer admission with admission decision available by April 1st. Program will continue to accept applications until all seats are filled.

No more than twelve graduate hours may be taken toward the master's degree as a non-degree seeking graduate student.

Degree Requirements

A grade of C or higher must be earned in all courses

ACE 602	Action-based Research for Coaching	3
ACE 610	Training Theories for Coaches	3
ACE 618	Psychology of Coaching	3
ACE 630	Coaching Education Administration	3
ACE 639	Create Healthy Competitive Environments	3
ACE 641	Positive Youth Development in Sport	3
ACE 650	Sport Movement Analysis	3
ACE 661	Strength and Conditioning Methods for Coaches	3
ACE 665	Strength and Conditioning Program Design Coach	3
ACE 685	Coaching Internship	3
ACE 688	Coaching Techniques	3
ACE 697	Research	3
SM 627	Legal Issues in Sport Administration	3
Total Hours		**39**

SUGGESTED PLAN OF STUDY

First Semester	Hours
ACE 618	3
ACE 661	3
	6
Second Semester	**Hours**
ACE 688	3
SM 627	3
	6
Third Semester	**Hours**
ACE 610	3
ACE 641	3
	6
Fourth Semester	**Hours**
ACE 602	3
ACE 650	3
	6
Fifth Semester	**Hours**
ACE 639	3
ACE 697	1
ACE 685[*]	3
	7
Sixth Semester	**Hours**
ACE 630	3
ACE 697 or 685[*]	1
	4

Seventh Semester	Hours
ACE 665	3
ACE 697 or 685[*]	1
	4

Total credit hours: 39

[*]   ACE 685 must be completed the semester when coaching a sport, but can be taken in the fifth, sixth or seventh semester (the semester that best aligns with your sport coaching season). The semester that you take ACE 685 (3 hours), you will be enrolled for 7 total credits and the other two semesters, you will only be enrolled for 4 credits.

Sport Management

Students have two options for completing a master's degree in sport management: 1) On-Campus and 2) Distance-Learning.

On-Campus

The graduate on-campus sport management program requires thirty-six credit hours including a six-hour internship. In addition to the required sport management classes, candidates have the ability to take elective classes in management, marketing, advertising, journalism and public relations. This program can be completed in one or two years. The unique curriculum features courses that provide "real-world" training in Athletic Compliance, Sport Finance, and a one-of-a-kind ESPN Sports Poll class. The Program provides students with marketing research and data mining consultant experiences.

Dual Degree

A dual degree track option also exists between on-campus sport management master's degree program and the M.B.A. program in the College of Business and Economics. This requires two years to complete, as credits are used from each program to support the other. Students interested in the dual degree program must complete the online applications for admission to both the Sport Management Program (fall admission only) and the M.B.A. program (summer admission) and be admitted separately to both programs. For more information, go to: http://www.be.wvu.edu/mba/mba_mssm.htm?expandable=1

Distance-Learning Program

This degree program offers flexibility to complete course competences at times which are convenient for students. The 36 credit hour distance education master's degree is expected to be completed in two years. Students complete 50% of the courses online with the remaining course load completed onsite at the WVU campus in Morgantown during a two-week period over two consecutive summers.

FACULTY
ASSOCIATE PROFESSORS
- Gonzalo Bravo - Ph.D. (Ohio State University)
- Dallas Branch, Jr. - Ph.D. (Ohio University)
- Dennis Floyd Jones - Ph.D. (University of Pittsburgh)

ASSISTANT PROFESSORS
- Cindy Lee - Ph.D. (Ohio State University)
- Luisa Valez-Colon - Ph.D. (Texas Woman's College)

ADJUNCT INSTRUCTORS
- William Alsop - Ed.D. (West Virginia University)
- Andro Barnett - Ph.D. (Temple University)
- Matthew Borman - M.S. (West Virginia University)
- Brad Cox - M.S. (West Virginia University)
- Rosa D'Amico-Lopez - Ph.D. (University of Australia)
- Anna Devito - Ph.D. (Syracuse University)
- Christopher Miller - J.D. - (West Virginia University)
- Richard Wilson - J.D. (West Virginia University)

Admission Criteria

ON-CAMPUS PROGRAM

- Undergraduate degree grade point average (2.75 minimum for regular status) from an approved institution
- Three letters of recommendation
- Official transcript (submitted directly to the WVU Office of Admissions)
- Resume
- Two-page career (goal) statement

Submit your online admission application thru the WVU Office of Admissions GEMS website along with your application fee. Official transcripts must be mailed directly to the WVU Office of Admissions. Your goal statement and resume are submitted to the online GEMS web site. The GEMS web site will also need three recommendation names and email addresses for reference letters. The system will send an email to your recommenders to complete a letter to be uploaded to your GEMS web site.   Please DO NOT submit any paper copies of the screening materials above, everything must be submitted thru the online GEMS web site (except your official transcript). The deadline to have a completely processed file for the on-campus program is January 15.

DISTANCE EDUCATION

The review process for applicants to this program will begin on March 1.   Faculty will continue to review applications after the March 1 deadline until they have reach the maximum number of 30 students. The distance education hybrid sport management major requires thirty-six credit hours including a six-hour practicum. This program is completed online from a distance in the spring and fall semesters. Summer courses are started online but include in-person interactions which require students to come to campus during a two-week period for two consecutive summers. Student must complete the online application.   A current resume, goal statement and three letters of recommendation need to be submitted online to your GEMS web site. Please DO NOT submit paper copies of these screening materials to our office, they are to uploaded to the GEMS web site on your admission application.

Degree Requirements: Campus Program

Minimum overall GPA of 3.0 or higher required.

A grade of C or higher must be earned in all major courses		
SM 616	Sport Marketing Research Methods	3
SEP 620	Individual Interaction in Sport and Physical Activity	3
SM 627	Legal Issues in Sport Administration	3
SM 630	Sport Sponsorship and Sales Management	3
SM 635	Sport Management Processes	3
SM 646	Sport Marketing	3
SM 621	Sport Publicity/Public Relations	3
SM 660	NCAA Compliance and Current Issues	3
SM 670	Sport Finance	3
SM 680	History and Philosophy of Sport	3
SM 685	Internship in Sport Management	6
Total Hours		**36**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
SM 616	3	SEP 620	3	SM 685	6
SM 621	3	SM 630	3		
SM 627	3	SM 635	3		
SM 646	3	SM 660	3		
SM 680	3	SM 670	3		
	15		**15**		**6**

Total credit hours: 36

Degree Requirements: Distance Education Program

Minimum overall GPA of 3.0 required.

SM 616	Sport Marketing Research Methods (Online)	3

SM 627	Legal Issues in Sport Administration (Online)	3
SM 635	Sport Management Processes	3
SM 640	International Sport Governance (Online)	3
SM 646	Sport Marketing (Online)	3
SM 670	Sport Finance	3
SM 675	Fund-Raising (Online)	3
SM 680	History and Philosophy of Sport (Online)	3
SM 686	Facility Planning and Management	3
SM 690 Teaching Practicum(Last three hours are online in the last semester)		6
SEP 620	Individual Interaction in Sport and Physical Activity	3
Total Hours		**36**

SUGGESTED PLAN OF STUDY

This program begins only in the summer session.

First Semester	Hours
SM 686	3
SM 635	3
SM 690	2
SM 616	3
	11
Second Semester	Hours
SM 646	3
SM 675	3
	6
Third Semester	Hours
SM 627	3
SM 640	3
	6
Fourth Semester	Hours
SEP 620	3
SM 680	3
SM 670	3
SM 690	1
	10
Fifth Semester	Hours
SM 690	3
	3

Total credit hours: 36

Public Health

Degrees Offered

ON CAMPUS:

Master of Public Health (MPH):

- Biostatistics
- Epidemiology
- Health Policy
- Occupational and Environmental Health Sciences
- Social and Behavioral Sciences

MPH Dual Degree:

- MD/MPH
- DDS/MPH
- MBA/MPH

MS Degree:

- MS in Biostatistics

Ph.D. in Public Health Sciences

- Epidemiology
- Occupational and Environmental Health Sciences
- Social and Behavioral Sciences

ONLINE:

- MPH in Social and Behavioral Sciences
- MS in School Health Education

West Virginia University's School of Public Health combines the excitement and challenge of a newly launched school with a well-established faculty and successful programs that focus on education, research, and service.

West Virginia University and its academic programs are accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. The School of Public Health is further accredited by the Council for Education in Public Health (CEPH). MPH Students from throughout the world who choose West Virginia University begin making a difference even before graduation. We truly believe in learning by doing. Students remain engaged in community health throughout their training and complete practicum/internship experiences in diverse settings. Our School Health Education program is nationally unique and attracts future leaders in education. The Ph.D. in Public Health Sciences prepares graduates for future careers in academia and research in a variety of settings.

School of Public Health faculty and staff involve students in their active research programs. Research efforts at the School often focus on the health of rural communities, consistent with our West Virginia roots. Students publish in leading peer-reviewed journals and present at national scientific conferences with their faculty mentors.

The *mission* of the West Virginia University School of Public Health is to improve the health of West Virginians through innovation and leadership in education, research, and service.

We achieve this by:

- Implementing educational programs that produce highly qualified practitioners, educators, and researchers
- Promoting interdisciplinary research to understand and solve complex health problems with local impact and global significance
- Engaging communities, businesses and government partners in accomplishing our shared mission

The *vision* of the School of Public Health is to be internationally recognized for demonstrating how academic public health can transform lives.

The School of Public Health is guided by the following *values*:

- *Community Engagement:* we are proud of the communities we serve and recognize the importance of bidirectional participatory activities.

- *Collaboration*: we collaborate with partners who join us in improving the public's health.
- *Equity*: we promote equity and social justice in defining health and eliminating health disparities.
- *Integrity*: we adhere to the highest ethical standards of honesty and fairness and we recognize that integrity and ethical behavior are essential elements of our professions.
- *Respect*: we respect diverse points of view and the cultural heritage and traditions of all people.
- *Accountability*: we hold ourselves accountable to one another and to the many stakeholders who support the School of Public Health.

ADMINISTRATION

FOUNDING DEAN

- Gregory A. Hand - Ph.D. (University of Texas Southwestern Medical Center at Dallas)
  Professor, Department of Epidemiology

INTERIM ASSOCIATE DEAN FOR ACADEMIC AFFAIRS AND COMMUNITY ENGAGEMENT

- Lillian U. Smith - Dr.PH. (University of South Carolina)
  Associate Professor, Department of Health Policy, Management, and Leadership

ASSOCIATE DEAN FOR FINANCE AND ADMINISTRATION

- Linda J. Rudy - MBA (West Virginia University)
  Business and Operations

ASSISTANT DEAN FOR PROGRAM DEVELOPMENT AND OPERATIONS

- Janet B. Hunt - MPH (University of Tennessee)
  Teaching Assistant Professor, Department of Social and Behavioral Sciences

DIRECTOR OF PRACTICE-BASED LEARNING

- Bobbi Sykes - MS (West Virginia University)
  Instructor, Department of Social and Behavioral Sciences

DIRECTOR, OFFICE OF STUDENT SERVICES

- Sherry Kuhl - MS (Walden University)
  Ruth E. Kershner Office of Student Services

CHAIRS

- Robert Duval - Ph.D. (Florida State University)
  Associate Professor, Department of Health Policy, Management and Leadership
- Thomas Hulsey (Interim) - Sc.D. (Johns Hopkins University)
  Professor, Department of Epidemiology
- Matthew J. Gurka - Ph.D. (University of North Carolina)
  Associate Professor, Department of Biostatistics
- Michael McCawley - Ph.D. (New York University)
  Research Professor, Department of Occupational and Environmental Health Sciences
- Keith Zullig - Ph.D. (University of South Carolina)
  Associate Professor, Department of Social and Behavioral Sciences

Degree Designation Learning Goals

MASTER OF SCIENCE (MS)

MS School Health Education Program Competencies

- Demonstrate the knowledge and skills of a health literate educator.
- Assess needs to determine priorities for school health education.
- Plan effective comprehensive school health education curricula and programs.
- Implement health education instruction.
- Assess student learning.
- Plan and coordinate a school health education program.
- Serve as a resources person in health education.
- Communicate and advocate for health and school health education.

MS Biostatistics Program Competencies

- Assess foundational concepts of probability and statistical inference.
- Analyze clinical and public health data using descriptive biostatistical methods.
- Distinguish appropriate basic inferential statistical analyses and summarize their results.
- Manage standard statistical software to efficiently manage data structures.
- Summarize central concepts of statistical theory and inference.
- Develop appropriate plans to analyze standard continuous data in order to make valid inferences.
- Develop appropriate plans to analyze standard categorical data in order to make valid inferences.
- Communicate effectively, in writing and verbally, with substantive investigators and members of the community when assisting in the design of research studies as well as the results of statistical analyses.
- Weigh a public health problem in terms of magnitude, person, time, and place.
- Explain each of the five core disciplines in public health and illustrate the ways each of the core disciplines have contributed to the historical evolution of public health.

MASTER OF PUBLIC HEALTH (MPH)

MPH Common/Core Competencies:

- Explain and assess basic concepts of probability and statistical inference. (BIOS)
- Summarize public health data using descriptive biostatistical methods. (BIOS)
- Distinguish the appropriate basic inferential statistical analyses and summarize their results. (BIOS)
- Derive and assess basic epidemiologic frequencies and association. (EPID)
- Compare and contrast epidemiologic study designs. (EPID)
- Explain health care and public health services within the context of the U.S. policy system. (HPML)
- Propose policy strategies for improving the health status of populations. (HPML)
- Assess specific health outcomes for individuals and selected populations. (OEHS)
- Summarize the ethical perspectives and conflicts which arise with respect to human health and the environment. (OEHS)
- Analyze the results of environmental health research and formal risk assessments, and be able to evaluate the validity of the methods used and the conclusions drawn. (OEHS)
- Compile the management principles necessary to manage public health functions in an environmental disaster. (OEHS)
- Illustrate the social and behavioral factors that affect the health of individuals and populations. (SBHS)
- Recommend appropriate social and behavioral theories and models that are relevant to population health problems. (SBHS)
- Recommend evidence–based approaches in the development of public health interventions. (SBHS)
- Apply MPH core competencies in a practice-based experience. (Practicum)
- Integrate and synthesize MPH core competencies in the context of a culminating experience. (Culminating Experience)

DOCTOR OF PHILOSOPHY (PHD)

- Develop effective strategies for teaching in higher education
- Review and synthesize pertinent literature and formulate focused research questions that address identified knowledge gaps
- Design and conduct original research that uniquely contributes to the public health scientific knowledge
- Disseminate research findings through appropriate peer-reviewed publications and presentations, and to other public health community audiences

Important Note: For *all* School of Public Health programs, non enrollment/completion of program relevant courses in four (4) or more sequential, long semesters (Fall, Spring) may result in suspension from the program.

Affirmation of competency achievement is a requirement for graduation.

MPH Admission Requirements (Fall Only)

The WVU School of Public Health participates in the Schools of Public Health Application Service (SOPHAS (http://www.sophas.org)). **Our MPH Admissions process is a two-step process.** All **MPH applications** must be submitted through the national SOPHAS service and applicants must also submit a WVU Graduate application. In addition to the application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires **original transcripts** from **ALL** U.S. and International institutions attended.

Please see each department and major's website for additional admission requirements.

MS in School Health Education Admission Requirements (Fall, Spring, Summer)

Students interested in applying for the MS in School Health Education must: Complete the WVU graduate application, complete the MS in School Health Education application, and submit official school transcripts, CV/Resume, three academic letters of recommendation, and a copy of the applicant's professional teaching certificate and/or licensure. Please see the MS degree under Academics on the School of Public Health for further admission requirements: http://publichealth.hsc.wvu.edu/.

MS in Biostatistics Admission Requirements (Fall Only)

The MS in Biostatistics program does not participate in SOPHAS (Schools of Public Health Application Service) like the MPH programs. All MS applications must be submitted through the WVU application system, which includes a $60.00 application fee, payable to WVU. Applicants must submit a statement of purpose, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and an official copy of all university transcripts. The deadline for applications to be considered for the fall (no spring/summer admissions are permitted) is July 1 (priority deadline is April 1).

Applications that are complete will be sent to the department for review. Students will receive an email from the WVU School of Public Health regarding their acceptance.

Ph.D. Admission Requirements (Fall Only)

Fully completed applications received by February 15 are considered.

Admission to the doctoral program is limited to highly qualified and motivated candidates. Competitive stipend support is offered to these students.

Detailed admissions procedures, including online application materials, as well as application deadline, can be found at the School of Public Health website: http://publichealth.hsc.wvu.edu/.

In this section:

Master of Public Health (MPH)

Welcome to the West Virginia University School of Public Health. Our mission is to improve the health of West Virginians through innovation and leadership in education, research, and service. Each day, the affiliates and centers within the School of Public Health conduct research on today's pressing public health issues. Diabetes, obesity, substance abuse, and tobacco use top the list of health disparities faced by West Virginians. Public health strategies are typically focused on broad, societal, and population levels; for example, environmental regulations, water quality control, immunization programs and health education initiatives.

The Master of Public Health program seeks students with a strong, genuine commitment to a career in public health, This degree is appropriate for health professionals, as well as individuals with bachelors' degrees from a wide range of disciplines, who have a strong interest in community/population health and preventive medicine. Our faculty and staff look forward to your decision to become a public health practitioner, researcher, and educator by enrolling in one of our master degree programs. Each department and major can be explored by visiting our website http://publichealth.hsc.wvu.edu.

Program Description

Public Health is shaped by our nation's public health agencies via health assessment, policy development, and public health services. The WVU School of Public Health addresses the core functions of public health by offering the MPH in the discipline-specific majors of:

- Biostatistics
- Epidemiology
- Health Policy
- Occupational and Environmental Health Sciences
- Social and Behavioral Science (On campus and Online)

All MPH programs are accredited by the national Council for Education for Public Health (CEPH). For more information about the MPH program, please contact:

Sherry Kuhl, Director of Student Services
West Virginia University
School of Public Health
P.O. Box 9190
1 Medical Center Drive
Morgantown, WV 26505-9190

Phone (304) 293-2505

Master of Science (MS) School Health Education

The mission of the MS in School Health Education Program is to provide teachers with the knowledge and skills necessary to instill in school-age students the information needed to make healthy decisions regarding well-being. The MS degree in School Health Education is only open to applicants holding a professional teaching certificate and/or licensure (in any teaching area). A copy of your teaching certificate is required for admission. This program is a member of the Southern Regional Education Board (SREB) (http://www.electroniccampus.org).

Program Description

Students in this program will complete thirty credit hours of coursework. Students may transfer nine credit hours that are pre-approved, upon admission. All courses are offered on-line. Students can complete this degree in two years or less. The goal of the MS degree program in School Health Education is to provide teachers with the knowledge and skills necessary to instill in school-age students the information necessary to make healthy decisions regarding well-being. Experiential instruction, coupled with critical thinking skills, enables students to be informed health consumers. The program will provide an optimal experience to equip students to be models and mentors for their own students.

For more information about the MS in School Health program, contact:

Michael Mann, School Health Coordinator
West Virginia University
School of Public Health
P.O. Box 9190
1 Medical Center Drive
Morgantown, WV 26505-9190
Phone (304) 293-3560
Fax (304) 293-6685

Master of Science (MS) Biostatistics

The Master of Science (MS) Program in Biostatistics is meant for college graduates with interest and background in mathematics and statistics who wish to learn both the methodology and the application of biostatistics in the health sciences. The goals of this program are similar to the current MPH in Biostatistics Program in learning objectives; however, MS students will receive a more extensive methodological foundation as well as be expected to take additional statistical courses instead of the "core" public health courses required for any MPH.

A typical student who graduates with an MS in Biostatistics from WVU would be qualified to work as a biostatistician or research coordinator in research organizations such as a pharmaceutical company, contract research organization (CRO), a university, or a health department. MS graduates also will be prepared to pursue doctoral education in biostatistics or similar disciplines.

Doctor of Philosophy (Ph.D.) in Public Health Sciences

Welcome to the WVU School of Public Health, **Ph.D. program in Public Health Sciences**. Our mission is to provide state of the art doctoral education to a select group of highly qualified students who desire to positively impact the public's health. We aim to train these students in a research intensive curriculum that is guided by a distinguished faculty at the leading edge of effective public health science. The degree emphasizes both evidence-based primary prevention of disease and injury, and health promotion research and practice.

The Ph.D. program in public health sciences is a degree for scientist-practitioners focused on prevention of premature mortality, morbidity, and disability resulting from communicable disease, chronic disease, and injury. The Ph.D. program offers four discipline-specific majors of:

- Epidemiology (114 credit hours)
- Occupational and Environmental Health Sciences (118 credit hours)
- Social and Behavioral Sciences (117 credit hours)

Detailed curricula are available at the School of Public Health website: http://publichealth.hsc.wvu.edu/.

Goals of the Ph.D. Program

- Educate and train the next generation of public health leaders, thereby producing a self-renewing cadre of teachers, researchers, and practitioners who will help shape and sustain the best public health practices.
- Identify and address public health disparities.
- Improve health and health care in West Virginia while simultaneously improving the economic competitiveness of the WVU Health Sciences Center, emulating peer training programs in other states.
- Feature trans-disciplinary teaching and research in order for our graduates to be competitive and successful in high-level public health jobs, grants, and research opportunities.

- Create a pool of talent for developing highly technical enterprises in West Virginia.

Program Description

The first two years of the program emphasize research and statistical methods complemented by theoretical and process-oriented coursework relevant to the student's selected area of specialty. In the first year, students take courses in the core areas of public health, scientific integrity and ethics, research writing, and research and statistical methodology, as well as seminars introducing them to pedagogy and faculty research. In the second year, students engage in required courses and electives in their specialty track and additional research study opportunities.

At the conclusion of the second year, students are matched with a mentor and transition to a funded faculty research project, lab, or group. The last two years will largely be dedicated to the dissertation proposal process and research; however, after qualifying exams, students also engage in teaching practica (to be determined by the student's departmental advisor).

Qualifying Examination Summary

At the conclusion of the second year of coursework, students are required to pass a comprehensive qualifying examination. This comprehensive exam is based on core public health and discipline-specific material and administered by the student's dissertation committee. Students are only allowed to take the comprehensive exam twice. If a student fails the exam twice, they will be dismissed from the program.

Doctoral Dissertation Proposal

Upon successful completion of the qualifying exam, the student will set a date for the doctoral dissertation proposal defense. The proposal takes the form of a NIH or equivalent grant proposal including: specific aims, introduction, succinct yet detailed literature review, applicant capability, materials and research methodology, references, human subjects, and supporting documents. The proposal must be defended by the student in a forum that includes the student's complete Doctoral Dissertation Committee (comprised of five members).

Dissertation Summary

The program will culminate in a dissertation research project on an important public health topic. The dissertation can take the form of a traditional research dissertation or a series of three publishable papers or monographs on a related, important public health topic. The papers must be cleared for submission by the committee and submitted before the dissertation defense. We emphasize peer-reviewed research publications as desired outcomes because of their positive impact on skills and the professional placement options for our graduates. This is consistent with a trend in public health Ph.D. programs around the country.

The dissertation will be defended in a forum that has been announced to the school and university. All members of the Dissertation Committee must sign the dissertation approval form for the dissertation to be complete. The dissertation must be submitted following WVU policy regulating electronic submission of theses and dissertations.

Program Delivery

Most courses in the program will be taught using the face-to-face, on-campus, small, or large group format. A small number of core courses and some electives will be delivered by web-based technology.

For more information contact:

Sherry Kuhl, Director, Office of Student Services
WVU School of Public Health
PO Box 9190
1 Medical Center Drive Morgantown, WV 26505-9190
skuhl@hsc.wvu.edu
304-293-2502

Biostatistics

Biostatistics

Biostatistics is the science of applying statistical theory and principles to research in public health, medicine, biology, pharmaceuticals, environmental science, and other related fields.

DEGREES OFFERED:

- Master of Public Health
- Master of Science

CERTIFICATE

- Applied Biostatistics

MPH IN BIOSTATISTICS

The MPH degree in Biostatistics is meant for individuals with a general interest in public health, who lack formal training in biostatistics and would like to gain skills needed to understand and apply standard statistical techniques. The purpose of the degree program is to:

- Introduce key principles of probability and statistical inference,
- Teach standard techniques of database management and analysis, and
- Provide guidance regarding critical appraisal of research from a statistical perspective

The entire curriculum will be available both online and/or in-person (live), thus being accessible to individuals from a variety of backgrounds, locations, and experiences. The program builds on the existing Applied Biostatistics Certificate, allowing for added coursework for those individuals interested in obtaining a more intensive examination of common biostatistical techniques as well as a comprehensive training in the core disciplines of public health.

MS IN BIOSTATISTICS

The Master of Science (MS) Program in Biostatistics is meant for college graduates with interest and background in mathematics and statistics who wish to learn both the methodology and the application of biostatistics in the health sciences. The goals of this program are similar to the current MPH in Biostatistics Program in learning objectives; however, MS students will receive a more extensive methodological foundation as well as be expected to take additional statistical courses instead of the "core" public health courses required for any MPH.

A typical student who graduates with an MS in Biostatistics from WVU would be qualified to work as a biostatistician or research coordinator in research organizations such as a pharmaceutical company, contract research organization (CRO), a university, or a health department. MS graduates also will be prepared to pursue doctoral education in biostatistics or similar disciplines.

BIOSTATISTICS CERTIFICATE

The Applied Biostatistics Certificate is designed for those individuals who lack formal training in biostatistics and would like to gain skills needed to understand and apply standard statistical techniques. It is an **online program** that is available to practitioners and/or students at WVU and elsewhere.

The primary objectives of the program are thus to:

- Describe basic concepts of probability and statistical inference
- Demonstrate standard techniques of database management and analysis
- Compare and contrast study designs common to health research
- Recognize the primary sources of bias observed in health research
- Interpret appropriate inferences from data based on strengths and limitations of major epidemiologic study designs as well as the results of descriptive and inferential statistical analyses

Individuals who would be interested in such a Certificate include clinical and translational researchers at varying levels of their career (faculty, fellows, residents, basic scientists) as well as public health practitioners, in the state of West Virginia or beyond. Interested individuals in the program should have a desire to be more self-sufficient with their research, specifically being able to know basic study design principles, analyze their data, and interpret their results.

The entire curriculum will be available both **online and in-person (live)**, thus being accessible to individuals from a variety of backgrounds, locations, and experiences. The program will take advantage of existing course technology where courses are taught in a synchronous fashion in which the instructor lectures in-class, and the lecture (along with associated PowerPoint slides or other files, such as SAS programs) is broadcast online. While the lecture is available live during the lecture itself, the video or audio of the lecture is archived and available on the course for access at any time. All course notes, homeworks, programs, etc. are available online, and the instructor is available in a number of formats (online chat, email, phone) to accommodate distance-learning students.

Applied Biostatistics Certificate Program students will typically take one class per semester. Completion of the program will typically take two years. Certificate Program students will pay tuition at the standard School of Public Health per-credit rate. Please visit the School of Public Health financial information link (http://publichealth.hsc.wvu.edu) for more information on current rates.

FACULTY

INTERIM CHAIR

- Matthew J. Gurka - Ph.D. (University of North Carolina at Chapel Hill)

PROFESSOR

- George A. Kelley - DA (Middle Tennessee State University)

ASSISTANT PROFESSORS

- Christa L. Lilly - Ph.D. (Vanderbilt University)
- D. Leann Long - Ph.D. (University of North Carolina at Chapel Hill)
- Dustin M. Long - Ph.D. (University of North Carolina at Chapel Hill)
- Michael D. Regier - Ph.D. (University of British Columbia)
- Sijin Wen - Ph.D. (The University of Texas Health Sciences Center at Houston)

MPH in Biostatistics

ADMISSIONS GUIDELINES

- A baccalaureate degree from an accredited college or university with a preferred overall GPA of 3.0.
- Basic competencies in mathematics.
- GRE scores of 150 (verbal), 150 (quantitative), 3.5 (analytical writing), or a terminal degree.
- TOEFL scores (minimum 550 paper-based) (minimum 213 computer-based).

TO APPLY FOR THE MPH IN BIOSTATISTICS

If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our School of Public Health is CEPH (http://www.ceph.org) accredited, and we participate in SOPHAS (http://www.sophas.org) (Schools of Public Health Application Service). We are also one of the schools participating in SOPHAS (http://www.sophas.org) (Schools of Public Health Application Service). **Our MPH Admissions process is a two-step process.** All MPH applications must be submitted through the national SOPHAS service and applicants must also submit a WVU Graduate application.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires **original transcripts** from **ALL** U.S. institutions attended! (Even Study Abroad) *Please see each Major's website for additional application requirements.*
There is a $120 SOPHAS application fee. Applicants **must** indicate their first choice of MPH major, and **may** also indicate a second choice. *A maximum of two choices is allowed.*

- E-submit your application as soon as the applicant entered information is complete. Do NOT wait for SOPHAS to receive transcripts, recommendations or test scores
- Plan Ahead! Allow up to 4 weeks for SOPHAS to verify grades, process and mail your application to your designated institutions after your documents have been received.
- SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers (http://www.sophas.org/Documents/fee_waiver_request_form_PeaceCorps.pdf), McNair Scholars (http://www.sophas.org/Documents/fee_waiver_request_form_Mcnair.pdf), Gates Millennium Scholars Program (http://www.sophas.org/Documents/fee_waiver_request_form_GMSP.pdf), AmeriCorps (http://www.sophas.org/Documents/fee_waiver_request_form_Americorps.pdf), U.S. and International applicants (http://www.sophas.org/Documents/fee_waiver_request_form_Intl.pdf)

Applications that are complete will then be reviewed by the department. Students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU Graduate application and pay the $60.00 WVU application fee.

Important: When sending GRE scores for consideration for admission at WVU use the GRE WVU School of Public Health College **code: <u>0157</u>.** *This is the code that MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete and therefore will not be reviewed for an admissions decision. [There are different codes for other programs at West Virginia University.]*
All other degrees and certificate programs will use the WVU application system (https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantConnectLogin.asp?id=wvugrad)**.**

MS in Biostatistics

ADMISSIONS GUIDELINES

- Baccalaureate degree from an accredited college or university (preferred GPA: 3.0 overall; 3.4 for quantitative courses)
- Course experience including:
    - Multivariable calculus (equivalent to WVU MATH 251)
    - Matrix or elementary linear algebra (equivalent to WVU MATH 343)
    - Knowledge of a programming language
- GRE scores : 155 quantitative, 150 verbal, and 3.5 for analytical writing
- A completed MS application, including a Statement of Purpose

- Three letters of recommendation

TO APPLY FOR THE MS IN BIOSTATISTICS

Complete the WVU graduate application and submit with the processing fee ($60.00): http://graduate.wvu.edu/future-students/application-process/apply

Applicants must submit a statement of purpose, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. The deadline for applications to be considered for the fall (no spring/summer admissions are permitted) is July 1 (priority deadline: April 1).

Applications that are complete will be sent to the department for review. Students will receive an e-mail through from the WVU School of Public Health regarding their recommendation for acceptance.

Applied Biostatistics Certificate

ADMISSIONS GUIDELINES

- Baccalaureate degree from an accredited college or university with a preferred overall GPA of 3.0 (official transcripts required)
- GRE scores or a terminal degree (MD, Ph.D., etc.)
- Essay describing previous education and experience and career objectives
- Resume or curriculum vitae
- At least two letters of recommendation
- Computer skills are a program requirement. It is the responsibility of the **students to become skilled in computer applications** and to participate in the Health Sciences Center Mandatory Laptop Program (http://publichealth.hsc.wvu.edu/students/student-policies/student-computer-policy).
- The admissions process will include a 15-20 minute phone interview between the Biostatistics Certificate Admissions Committee and the applicant.

Students <u>currently enrolled at WVU</u> **should fill out the admissions form for current students** (http://publichealth.hsc.wvu.edu/academics/online-programs/applied-biostatistics-certificate/application-process) **to apply for the Applied Biostatistics Certificate. Please contact Dr. Christa Lilly** (cice@hsc.wvu.edu) **with questions or the completed form.**

STUDENTS INTERESTED IN APPLYING FOR THE APPLIED BIOSTATISTICS CERTIFICATE MUST:

- Complete the WVU graduate application and indicate Applied Biostatistics Certificate and submit with the processing fee.
- https://app.applyyourself.com/AYApplicantLogin/ApplicantConnectLogin.asp?id=wvugrad
- Submit official school transcripts and official GRE scores to:

WVU HSC Admissions
1 Medical Center Drive
1170 HSC North
Morgantown, WV 26506

- International students must submit to:

WVU Admissions and Records
PO Box 6009
Morgantown, WV 26506-6009

Master of Public Health

Biostatistics Major Competencies

- Manage data structures efficiently using standard statistical software.
- Evaluate basic multivariable statistical techniques commonly used in clinical and public health settings.
- Explain the motivations, underlying theory, and assumptions of advanced methodological tools for biostatisticians.
- Conduct and evaluate systematic reviews with meta-analysis.
- Develop written presentations based on statistical analyses for both substantive investigators and members of the community.
- Develop oral presentations based on statistical analyses for both substantive investigators and members of the community.

MAJOR REQUIREMENTS

MPH Core Courses

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
EPID 601	Public Health Epidemiology	3
HPML 601	Foundations of Health and Policy	3

SBHS 601	Social and Behavioral Theory	3
OEHS 601	Environmental Health	3
PUBH 696	Graduate Seminar	1
Required Major Courses		
BIOS 603	Applied Biostatistics 2	3
BIOS 604	Applied Biostatistics 3	3
BIOS 611	Data Management and Reporting	3
BIOS 623	Biostatistical Consulting	1
BIOS 663	Introduction to Meta-Analysis	3
Practice based/Culminating Experiences		
PUBH 622	MPH Practice-Based Experience	3
BIOS 629	Application of Biostatistics to Public Health Data: Capstone	3
Electives *		
BIOS 662	Statistics in Clinical Trials	3
HPML 622	Analytic Methods for Health Policy, Management and Leadership	3
or other approved courses		
Total Hours		**42**

*   The student's advisor can also approve elective courses from other programs if these courses contribute to the student's program of study.

SUGGESTED PLAN OF STUDY

First Year

Fall		Hours Spring		Hours Summer		Hours
BIOS 601		3 BIOS 603		3 PUBH 622		3
BIOS 602		1 BIOS 623		1		
BIOS 611		3 BIOS 662		3		
EPID 601		3 OEHS 601		3		
PUBH 696		1				
		11		**10**		**3**

Second Year

Fall		Hours Spring		Hours
BIOS 604		3 BIOS 629		3
HPML 601		3 BIOS 663		3
SBHS 601		3 HPML 622		3
		9		**9**

Total credit hours: 42

Note: The suggested schedule may be altered to allow for additional coursework in biostatistics.

The MPH degree will be awarded based on successful completion of all academic requirements and demonstrated achievement of competencies. The department chair using a faculty panel will review competency performance evidence and based on the evidence reviewed, determine if the student has achieved the expected competencies. If a determination is made that competencies have not been achieved, the department chair will inform the student what must be accomplished to demonstrate achievement and therefore be recommended for awarding of the MPH degree. This may include taking additional courses.

Master of Science in Biostatistics

MS-Biostatistics students will gain the following general competencies that will be assessed continuously through the assessment processes already in place in the School of Public Health (SPH):

1. Assess foundational concepts of probability and statistical inference.
2. Analyze clinical and public health data using descriptive biostatistical methods.
3. Distinguish appropriate basic inferential statistical analyses and summarize their results.
4. Manage standard statistical software to efficiently manage data structures.

5. Summarize central concepts of statistical theory and inference.

6. Develop appropriate plans to analyze standard continuous data in order to make valid inferences.

7. Develop appropriate plans to analyze standard categorical data in order to make valid inferences.

8. Communicate effectively, in writing and verbally, with substantive investigators and members of the community when assisting in the design of research studies as well as the results of statistical analyses.

9. Weigh a public health problem in terms of magnitude, person, time, and place.

10. Explain each of the five core disciplines in public health and illustrate the ways each of the core disciplines have contributed to the historical evolution of public health

MAJOR REQUIREMENTS

MS Requried Courses

BIOS 610	Intermediate Biostatistics	4
BIOS 611	Data Management and Reporting	3
BIOS 612	Public Health Statistical Inference 1	3
BIOS 620	Applied Linear Models HS	3
BIOS 621	Categorical Data Analysis HS	3
BIOS 623	Biostatistical Consulting	1
BIOS 624	Consulting Experience	2
EPID 601	Public Health Epidemiology	3
PUBH 659	Public Health Foundations	3
Electives		9
9 Hours of Approved Courses		
Choice of Thesis or Non-Thesis Option		6
Thesis Option		
BIOS 697	Research	
Non-Thesis Option		
BIOS 628	Biostatistics Practicum	
BIOS 629	Application of Biostatistics to Public Health Data: Capstone	
Total Hours		**40**

SUGGESTED PLAN OF STUDY(THESIS OPTION)

First Year

Fall	Hours	Spring	Hours
BIOS 610	4	BIOS 620	3
BIOS 611	3	BIOS 621	3
BIOS 612	3	BIOS 623	1
		Elective	3
	10		**10**

Second Year

Fall	Hours	Spring	Hours
BIOS 624	2	PUBH 659	3
EPID 601	3	BIOS 697	3
Elective	3	Electives	3
BIOS 697	3		
	11		**9**

Total credit hours: 40

The MS degree will be awarded based on successful completion of all academic requirements.

The Applied Biostatistics Certificate is designed for those individuals who lack formal training in biostatistics and would like to gain skills needed to understand and apply standard statistical techniques. It is an **in-person and/or online program** that is available to practitioners and/or students at WVU and elsewhere.

The primary objectives of the program are to:

- Describe basic concepts of probability and statistical inference
- Demonstrate standard techniques of database management and analysis
- Compare and contrast study designs common to health research
- Recognize the primary sources of bias observed in health research
- Interpret appropriate inferences from data based on strengths and limitations of major epidemiologic study designs as well as the results of descriptive and inferential statistical analyses

Individuals who would be interested in such a Certificate include clinical and translational researchers at varying levels of their career (faculty, fellows, residents, basic scientists) as well as public health practitioners, in the state of West Virginia or beyond. Interested individuals in the program should have a desire to be more self-sufficient with their research, specifically being able to know basic study design principles, analyze their data, and interpret their results.

The entire curriculum will be available both **online and in-person (live)**, thus being accessible to individuals from a variety of backgrounds, locations, and experiences. The program will take advantage of existing course technology where courses are taught in a synchronous fashion in which the instructor lectures in-class, and the lecture (along with associated PowerPoint slides or other files, such as SAS programs) is broadcast online. While the lecture is available live during the lecture itself, the video or audio of the lecture is archived and available on the course for access at any time. All course notes, homework, programs, etc. are available online, and the instructor is available in a number of formats (online chat, email, phone) to accommodate distance-learning students.

Applied Biostatistics Certificate Program students will typically take one class per semester. Completion of the program will typically take two years.

Epidemiology

DEGREES OFFERED:

- Master of Public Health
- Doctor of Philosophy

MPH IN EPIDEMIOLOGY

The Master of Public Health (MPH) degree is designed for those who wish to acquire knowledge and skills necessary for epidemiologic practice and research. This degree will be appropriate for persons interested in a career studying the relationship of risk factors to a variety of disease, injury, and other health-related states.

WVU MPH graduates in Epidemiology are qualified to work and provide leadership in state, federal, and global health agencies (e.g. Centers for Disease Control and Prevention [CDC], The National Institute for Occupational Safety and Health [NIOSH]); hospitals; infection control departments in multiple industries; academic health centers and other healthcare organizations; research institutions, foundations; insurance and managed care organizations; and pharmaceutical and biotechnology companies.

PH.D. IN EPIDEMIOLOGY

The doctor of philosophy (Ph.D.) in epidemiology prepares students for careers in research, teaching, and consulting. Students develop research and teaching skills in epidemiology through coursework and practice opportunities. The curriculum provides rigorous and comprehensive training in epidemiologic methods for clinical and population-based research including study design, statistical analysis and interpretation of results, as well as research areas of focus for epidemiologic research including chronic diseases, infectious diseases, injury, and gene by environment interactions. The program's etiologic orientation is based on the premise that knowledge of genetic, physiologic, behavioral, and environmental factors contribute to understanding the underlying causes of complex human diseases needed to develop and evaluate effective preventive and treatment measures. The first two years of the program emphasize research and statistical methods complemented by theoretical and process-oriented coursework relevant to epidemiology. The last two years will largely be dedicated to dissertation research.

Graduates of the Ph.D. in epidemiology program typically work as faculty members in academic institutions; scientists in research centers, e.g., the National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC) or the pharmaceutical industry; or may assume leadership positions in state or federal health agencies (such as CDC, Food and Drug Administration [FDA], and the Environmental Protection Agency [EPA]).

Students who have not earned a relevant master's or professional degree may still be admitted to the doctoral program. However, these students are required to complete basic public health/epidemiology courses in the School of Public Health. These students should still apply directly to the Ph.D. program.

FACULTY
INTERIM CHAIR

- Thomas Hulsey, Professor

PROFESSORS

- Gregory A. Hand, Founding Dean - Ph.D. (University of Texas Southwestern Medical Center at Dallas)
- Sarah Knox - Ph.D. (University of Stockholm)
- Ian R. H. Rockett - Ph.D. (Brown University)

ASSOCIATE PROFESSORS

- Kimberly Innes - Ph.D. (Cornell University)
- Peter Giacobbi, Jr. - Ph.D. (University of Tennessee)
- R. David Parker - Ph.D. (University of South Carolina)

ASSISTANT PROFESSORS

- Baqiyyah Conway - Ph.D. (University of Pittsburgh)
- Kelly Gurka - Ph.D. (University of North Carolina at Chapel Hill)
- Motao Zhu - Ph.D. (State University of New York at Albany)

Admission Guidelines for MPH

- A baccalaureate degree from an accredited college or university (required)
- Preferred minimum GPA of 3.0
- Preferred minimum GRE scores of 150 (verbal), 155 (quantitative), and 4.0 (analytical writing)
- Personal Statement
- Three academic letters of recommendation
- TOEFL scores (minimum 550 paper-based, 213 computer-based, 80 internet-based) *International students only*

MPH ADMISSION

If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our School of Public Health is CEPH accredited, and we participate in SOPHAS (Schools of Public Health Application Service). **Our MPH Admissions process is a two-step process.** All MPH applications must be submitted through the national SOPHAS service and applicants must also submit a WVU Graduate application.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires original transcripts from ALL U.S. institutions attended! (Even Study Abroad) Please see each Major's website for additional application requirements.

Applicants must indicate their first choice of MPH major, and may also indicate a second choice. A maximum of two choices is allowed. (SOPHAS fee $120.00 – one choice; SOPHAS fee $165.00 – two choices)

   • E-submit your application as soon as the applicant entered information is complete. Do NOT wait for SOPHAS to receive transcripts, recommendations or test scores

   • Plan Ahead! Allow up to 4 weeks for SOPHAS to verify grades, process and mail your application to your designated institutions after your documents have been received.

   • SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers (http://www.sophas.org/Documents/ fee_waiver_request_form_PeaceCorps.pdf), McNair Scholars (http://www.sophas.org/Documents/fee_waiver_request_form_Mcnair.pdf), Gates Millennium Scholars Program (http://www.sophas.org/Documents/fee_waiver_request_form_GMSP.pdf), AmeriCorps (http://www.sophas.org/Documents/fee_waiver_request_form_Americorps.pdf), U.S. (http://www.sophas.org/Documents/ fee_waiver_request_form_US.pdf) and International (http://www.sophas.org/Documents/fee_waiver_request_form_Intl.pdf) applicants.

Applications that are complete will then be reviewed by the department. Students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU Graduate application and pay the $60.00 WVU application fee.

*Important: When sending GRE scores for consideration for admission at WVU use the GRE WVU School of Public Health College **code: 0157**. This is the code that MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete and therefore will not be reviewed for an admissions decision. [There are different codes for other programs at West Virginia University]*

All other degrees and certificate programs will use the WVU application system.

Admission Guidelines for Ph.D.

- A minimum of a baccalaureate degree (Master's degree preferred) from an accredited college or university (preferred minimum GPA of 3.0)
- GRE preferred scores: 150 (verbal), 155 (quantitative), and 4.0 for (analytical writing)

- A completed Ph.D. application, including a statement of purpose (see below under Ph.D. admission requirements for details regarding the statement of purpose)
- Three academic letters of recommendation
- TOEFL scores (minimum 550 paper-based, 213 computer-based, 80 internet-based) *International students only*

STATEMENT OF PURPOSE

The essay is a critical piece of the admissions process. We will evaluate both the content of the essay and your writing skills in considering your application. All applicants should write an essay of 1000 words or less. In this essay, please address the following questions:

- What is it about epidemiology that appeals to you?
- What are your long-term career goals?
- What area of research do you wish to emphasize and why?

Applicants should also include any additional information about their interests, prior background, or special circumstances which may be helpful to Departmental Admissions in evaluation of the application.

Students interested in applying for the Ph.D. in epidemiology must:

If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our School of Public Health is CEPH (http://www.ceph.org) accredited, and we participate in SOPHAS (http://www.sophas.org) (Schools of Public Health Application Service). **Our Ph.D. Admissions process is a two-step process**. All **Ph.D. applications** must be submitted through the national SOPHAS service and **applicants must also submit a WVU Graduate application**.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires **original transcripts** from **ALL** U.S. institutions attended! (Even Study Abroad) **Please see each Major's website for additional application requirements.**

There is a $120 SOPHAS application fee. Applicants **must** indicate their first choice of **Ph.D.** major, and may also indicate a second choice. A maximum of two choices is allowed.

- E-submit your application as soon as the applicant entered information is complete. Do NOT wait for SOPHAS to receive transcripts, recommendations or test scores.
- Plan Ahead! Allow up to **4 weeks** for SOPHAS to verify grades, process and mail your application to your designated institutions after your documents have been received.
- SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers (http://www.sophas.org/Documents/fee_waiver_request_form_PeaceCorps.pdf), McNair Scholars (http://www.sophas.org/Documents/fee_waiver_request_form_Mcnair.pdf), Gates Millennium Scholars Program (http://www.sophas.org/Documents/fee_waiver_request_form_GMSP.pdf), AmeriCorps (http://www.sophas.org/Documents/fee_waiver_request_form_Americorps.pdf), U.S. (http://www.sophas.org/Documents/fee_waiver_request_form_US.pdf) and International (http://www.sophas.org/Documents/fee_waiver_request_form_Intl.pdf) applicants.

Applications that are complete will then be reviewed by the department. Students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU Graduate application and pay the $60.00 WVU application fee.

Important: When sending GRE scores for consideration for admission at WVU use the GRE WVU School of Public Health College **code: 0157.** *This is the code that MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete and therefore will not be reviewed for an admissions decision. [There are different codes for other programs at West Virginia University.]*

Fall Admissions Only: Fully completed applications received by February 15 are considered.

STUDENTS ENTERING THE PROGRAM WITH APPROVED MASTER'S DEGREES

Some students who are admitted to the Ph.D. program will have previously completed a master's degree in the discipline. Per School of Public Health academic policies, some of these students may be eligible to enter the program with advanced standing and be required to complete an abbreviated version of the curriculum. If you have previously completed a master's degree in the discipline, please see the full policy related to "Applying Previously Completed MPH/MS Coursework to PhD Program Majors" available on the school's website and contact your advisor to determine your eligibility as soon as possible.

Master of Public Health

Epidemiology Major Competencies

- Derive and assess basic epidemiologic frequencies and association.
- Compare and contrast epidemiologic study designs.
- Weigh a public health problem in terms of magnitude, person, time, and place.

- Measure occurrences of incidence, morbidity, and mortality.
- Summarize concepts of causation.
- Derive appropriate inferences from epidemiologic data.
- Analyze data using statistical software to fit epidemiologic regressions, generate coefficients, and explain interpretations properly.
- Analyze data for confounding, and generate a proper interpretation.
- Appraise data for effect modification, and generate a proper interpretation.
- Evaluate data for dose-response.
- Evaluate basic multivariable statistical techniques commonly used in clinical and public health settings.
- Manage standard statistical software to efficiently manage data structures.
- Integrate and synthesize epidemiologic knowledge, skills and abilities as demonstrated in the context of a culminating experience.

MAJOR REQUIREMENTS

MPH Core Curriculum:

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
EPID 611	Concepts and Methods of Epidemiology	3
HPML 601	Foundations of Health and Policy	3
OEHS 601	Environmental Health	3
PUBH 696	Graduate Seminar	1
SBHS 601	Social and Behavioral Theory	3
MPH Concentration Curriculum:		
BIOS 603	Applied Biostatistics 2	3
BIOS 611	Data Management and Reporting	3
EPID 612	Applied Epidemiology for Public Health	3
EPID 696	Graduate Seminar	1
Practice based/Culminating Experiences:		
PUBH 622	MPH Practice-Based Experience	3
EPID 629	Epidemiology Capstone	3
Electives:		9
BIOS 621	Categorical Data Analysis HS	
EPID 625	Principles of Clinical Trials	
EPID 760	Demography and Transitions	
EPID 763	Injury Epidemiology	
EPID 764	Mind-body Medicine	
EPID 765	Epidemiology of Transportation Safety	
EPID 766	Physical Activity Epidemiology	
OEHS 622	Public Health Toxicology	
OEHS 732	Occupational Injury Prevention	
EPID 740	Gene X Environmental Interactions and Chronic Diseases	
PUBH 586	Public Mental Health	
PUBH 605	Introduction to Global Public Health	
SBHS 660	Survey Research Methods	
Total Hours		**42**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
BIOS 601	3	EPID 612	3
BIOS 602	1	PUBH 696	1
EPID 611	3	BIOS 603	3
BIOS 611	3	OEHS 601	3

EPID 696	1 Elective	3
	11	**13**

Second Year

Fall	Hours Spring		Hours
SBHS 601	3	EPID 629	3
HPML 601	3	Elective	3
PUBH 622	3		
Elective	3		
	12		**6**

Total credit hours: 42

The MPH degree will be awarded based on successful completion of all academic requirements and demonstrated achievement of competencies. The department chair using a faculty panel will review competency performance evidence and based on the evidence reviewed, determine if the student has achieved the expected competencies. If a determination is made that competencies have not been achieved, the department chair will inform the student what must be accomplished to demonstrate achievement and therefore be recommended for awarding of the MPH degree. This may include taking additional courses.

Doctor of Philosophy

Epidemiology Major Competencies

- Design investigations of acute and chronic conditions, as well as other adverse health outcomes in targeted populations.

- Analyze and evaluate data from epidemiologic investigations, and disease and injury surveillance systems.

- Evaluate health behaviors and outcomes in populations by such variables as age, sex, race/ethnicity, socioeconomic status, and disability.

- Critically evaluate results of epidemiologic studies, including study design, analysis results, and conclusions.

- Prepare written and oral reports and presentations to effectively communicate to professional audiences, policymakers, and the general public.

- Prepare research proposals for extramural peer-reviewed funding.

- Promote and model ethical conduct in epidemiologic practice.

- Bring epidemiologic perspectives to the development and analysis of public health policies.

MAJOR REQUIREMENTS

EPID 625	Principles of Clinical Trials	3
EPID 710	Advanced Principles of Epidemiology	3
EPID 711	Intermediate Epidemiology	3
EPID 712	Quantitative Methods in Epidemiology	3
Graduate Seminar (taken 3 times)		3
EPID 796	Graduate Seminar	
BIOS 603	Applied Biostatistics 2	3
BIOS 604	Applied Biostatistics 3	3
BIOS 610	Intermediate Biostatistics	4
BIOS 611	Data Management and Reporting	3
SBHS 601	Social and Behavioral Theory	3
SBHS 701	Public Health Grant Writing	3
SBHS 760	Survey Research Methods	3
SBHS 761	Qualitative Research Methods	3
BMS 700	Scientific Integrity	1
BMS 720	Scientific Writing	2
C&I 789	Teaching in Higher Education	3
Research		57
EPID 797	Research	
EPID 790	Teaching Practicum	2

Electives - Select from the following:		9
EPID 740	Gene X Environmental Interactions and Chronic Diseases	
EPID 745	Epigenetics and Systems Biology	
EPID 760	Demography and Transitions	
EPID 763	Injury Epidemiology	
EPID 764	Mind-body Medicine	
EPID 765	Epidemiology of Transportation Safety	
EPID 766	Physical Activity Epidemiology	
Oral Qualifying Examination		
Written Qualify Examination		
Dissertation Proposal		
Dissertation Defense		
Total Hours		**114**

ELECTIVES

Students will complete a minimum of nine credit hours of electives during their Ph.D. program. These may be selected from among the department's, School of Public Health's, or university's many course offerings. These courses will be discussed and approved with the faculty advisor.

TEACHING PRACTICUMS

Students will spend two semesters in a mentored relationship with a faculty member, assisting with the implementation of a course.

COMPREHENSIVE EXAMS

The Qualifying Examination is the capstone experience for Ph.D. program coursework. Successful completion of the examination signifies competence in the field of public health sciences and indicates readiness to engage in independent research. The Qualifying Examination consists of both a written and oral component. Qualifying exams should not include testing on content of the dissertation. The oral defense of the dissertation proposal will serve that purpose. The Qualifying Examination is planned and administered by the five-member dissertation committee, under the direction of the committee chairperson. If necessary and at the discretion of the Program Director, another faculty member may be appointed to serve on the committee.

The oral portion of the exam may not be attempted until the written component is completed and must be attempted within two academic weeks of the written component. Students are expected to take the qualifying exam during the summer sessions between their fourth and fifth academic semesters. However, the written component must be completed no later than the second week in July. Students are not eligible to begin their dissertation or enroll in dissertation hours until they have successfully completed the Qualifying Examination.

RESEARCH

Students will participate in research rotations during their first year, meeting and working with research faculty with similar interests in order to develop mentorships for dissertation research. A total of fifty-seven credit hours of rotations and dissertation research will be completed during the program.

THE DISSERTATION PROPOSAL, DEFENSE, AND APPROVAL

Although students may choose to pursue a traditional dissertation format, the majority of Ph.D. students format their dissertation using the Three Journal Article Format (JAF). The decision of which format to use is something that students should discuss with chairperson of their dissertation committee. As a reminder, students will not be allowed to defend their dissertations until they have at least one first-authored publication in any form of acceptance, based on their Ph.D. dissertation, in a peer-reviewed journal by the time of the dissertation defense. Note: This required publication does not necessarily need to be one of the three articles generated through the JAF dissertation format.

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
BIOS 610	4	EPID 711	3	BMS 720	2
EPID 797	1	EPID 712	3	C&I 789	3
EPID 710	3	SBHS 701	3	EPID 797	2
BIOS 611	3	BIOS 603	3		
BMS 700	1	EPID 797	2		
Elective	3				
	15		**14**		**7**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
BIOS 604	3	EPID 625	3	EPID 797	6
SBHS 601	3	EPID 790	1		
EPID 796	1	EPID 797	3		
EPID 790	1	SBHS 760	3		
EPID 797	1	Elective	3		
SBHS 761	3				
Elective	3				
	15		**13**		**6**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 797	9	EPID 797	9	EPID 797	6
EPID 796	1				
	10		**9**		**6**

Fourth Year

Fall	Hours	Spring	Hours
EPID 796	1	Dissertation Defense	
EPID 797	9	EPID 797	9
	10		**9**

Total credit hours: 114

Health Policy

Degree Offered:

- Master of Public Health

The MPH degree in Health Policy offered by the Department of Health Policy, Management, and Leadership is designed for students with a keen interest in using population-based approaches to understand and improve the health status of large groups within society. The degree is focused on examining social and political systems that influence the health status of populations and then learning how to influence and/or design, implement, and manage broad, system-level instruments to improve population health outcomes. These instruments might include programs in public health agencies, not-for-profit organizations, or healthcare provider setting, or policies at the local, state, national, or international governmental levels.

The Health Policy MPH degree has a dual emphasis on acquiring both theoretical knowledge and practical skills. Students are also offered the opportunity to select electives that will allow for additional focus in areas such as, but not limited to: healthcare management and leadership, health services research, health policy, and, environmental policy.

Thus, this degree is ideal for recent graduates or early- and mid-career public health professionals seeking to develop or advance their careers in a variety of health care settings. Additionally, the Professional practice component of the program has been designed to place students in public health settings and apply their newly acquired knowledge and skills to address real-world problems. Upon completion of the MPH, students will be prepared to continue developing their careers as leaders, managers, public health professionals, policy analysts, program evaluators, advocates, or health program managers in a variety of public health, government, health care, or other professional settings, or be successful as they continue their graduate education at the doctoral level.

FACULTY

CHAIR

- Robert Duval - Ph.D. (Florida State University)

PROFESSOR

- Jeff Coben - MD (University of Pittsburgh)

ASSOCIATE PROFESSOR

- Warren Eller - Ph.D. (Texas A&M University)
- Lillian Smith - DrPH (University of South Carolina)
  Interim Associate Dean for Academic Affairs and Community Engagement

ASSISTANT PROFESSORS

- Lauri Andress - Ph.D./JD (University of Texas/South Texas College of Law)
- Thomas Bias - Ph.D. (West Virginia University)
- Elyce Biddle - Ph.D. (West Virginia University)
- Stephanie Frisbee - Ph.D. (West Virginia University)
- Sarah Woodrum - Ph.D. (University of Illinois - Chicago)

FACULTY ASSOCIATE

- Jean Siebert - MBA (West Virginia University)

ADJUNCT FACULTY

- Rahul Gupta - MD/MPH (University of Delhi; Unibersity of Alabama-Birmingham)
  State Health Officer and Commissioner, West Virginia Bureau of Public Health
- Chris Haddox
- Nicholas Valcik

Admission Guidelines (MPH in Health Policy)

- Baccalaureate degree from an accredited college or university with a preferred overall GPA of 3.0
- GRE scores of 150 (verbal), 144 (quantitative), 4.0 (analytical writing)
- TOEFL scores (minimum 515 paper-based) (minimum 213 computer-based) (minimum of 80 internet-based)

MPH Applicants (Fall Admissions Only)

If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our School of Public Health is CEPH (http://www.ceph.org) accredited, and we participate in SOPHAS (http://www.sophas.org) (Schools of Public Health Application Service). **Our MPH process is a two-step process.** All MPH applications must be submitted through the national SOPHAS service and applicants must also submit a WVU Graduate application.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires original transcripts from all U.S. institutions attended. (Including Study Abroad) **Please see each Major's website for additional application requirements.**

There is a $120 SOPHAS application fee. Applicants must indicate their first choice of MPH major, and may also indicate a second choice. A maximum of two choices is allowed.

- E-submit your application as soon as the applicant entered information is complete. Do NOT wait for SOPHAS to receive transcripts, recommendations or test scores.
- Plan Ahead! Allow up to 4 weeks for SOPHAS to verify grades, process, and mail your application to your designated institutions after your documents have been received.
- SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers, McNair Scholars, Gates Millennium Scholars Program, AmeriCorps, U.S. and International applicants.

Once the department has reviewed the SOPHAS application, students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU graduate application and pay the $60.00 WVU application fee.

Admission decisions to the West Virginia School of Public Health are conducted in two rounds. Fully completed SOPHAS **applications received by April 15 will be considered first.** Incomplete applications and new fully completed applications received by June 1 will be considered for those degree programs/concentrations that have openings after the April 15 decisions. Applicants are strongly encouraged to submit their completed applications by the April 15 deadline in order to be considered during the first round.

Important: When sending GRE scores for consideration for admission to WVU, please use the WVU School of Public Health College GRE **code: 0157**. *This code MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete. Incomplete applications cannot be reviewed for an admissions decision. [Each program at West Virginia University has a specific code]*

All other degrees and certificate programs will use the WVU application system.

Master of Public Health

Health Policy, Leadership & Management Major Competencies:

- Explain how health care resources are allocated.
- Explain the market structures within the U.S. health system.

- Expound leadership and management principles in public health.
- Critique a research study.
- Design an evaluation study.
- Write a paper that uses a pathway diagram and describes how a non-medical determinant of health influences health.
- Select and use a community based policy tool that can be used to explain to a community how a social determinant of health and related policies shape population health.
- Prepare a budget with justification.
- Apply MPH health policy competencies in a practice-based experience.
- Integrate and synthesize MPH health policy competencies in the context of a culminating experience.

MAJOR REQUIREMENTS

MPH Core Courses:

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
EPID 601	Public Health Epidemiology	3
HPML 601	Foundations of Health and Policy	3
OEHS 601	Environmental Health	3
PUBH 696	Graduate Seminar	1
SBHS 601	Social and Behavioral Theory	3
Concentration Curriculum:		
HPML 610	Health Economics for Population Health	3
HPML 620	Public Health Leadership and Management 1	3
HPML 622	Analytic Methods for Health Policy, Management and Leadership	3
HPML 624	Policy Tools for Population Health	3
HPML 696	Graduate Seminar	1
Practice-based/Culminating Experiences:		
PUBH 622	MPH Practice-Based Experience	3
HPML 629	Capstone	3
Electives:		
Approved Elective Courses		9
Total Hours		**45**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
BIOS 601	3	SBHS 601	3
BIOS 602	1	HPML 622	3
HPML 601	3	HPML 624	3
HPML 620	3	HPML 696	1
PUBH 696	1	Elective	3
	11		**13**

Second Year

Fall	Hours	Spring	Hours
EPID 601	3	HPML 629	3
HPML 610	3	OEHS 601	3
PUBH 622	3	Elective	3
Elective	3		
	12		**9**

Total credit hours: 45

ELECTIVES

Students must select at least nine credit hours for electives. The Department of Health Policy, Management and Leadership offers several elective courses; additionally, any course offered by any department within the School of Public Health may be an acceptable elective. Students may select a course not listed specifically, but only with approval, in advance, from their faculty advisor and the Department Chair.

PRACTICE-BASED EXPERIENCE

Students will be required to complete a practice-based experience as part of the MPH program in the department of Health Policy, Management & Leadership. The practice-based field experience will include identification of site preceptor, learning objectives, field reports, and final evaluation. All students must complete a minimum of 180 hours of field experience.

CULMINATING EXPERIENCE/CAPSTONE

This course is to be taken in the last semester of study. Students are required to demonstrate the ability to synthesize and integrate knowledge and competencies across the full breadth of the MPH-HP curriculum.

The MPH degree will be awarded based on successful completion of all academic requirements and demonstrated achievement of competencies. The department chair, using a faculty panel, will review competency performance evidence and based on the evidence reviewed, determine if the student has achieved the expected competencies. If a determination is made that competencies have not been achieved, the department chair will inform the student what must be accomplished to demonstrate achievement and therefore be recommended for awarding of the MPH degree. This may include taking additional courses.

APPLIED PUBLIC HEALTH MANAGEMENT AREA OF EMPHASIS

This Area of Emphasis will provide students with the opportunity to develop depth and breadth in both knowledge and skills, including the following competencies:

1. Apply basic human relations skills to internal collaborations, motivation of colleagues and resolution of conflicts.
2. Analyze internal and external factors that affect the delivery of health care.
3. Synthesize the skills and knowledge required to conduct a quality improvement project.
4. Evaluate how leadership styles affect client outcomes in the field of public health.
5. Evaluate normative decisions facing public, private, and non-profit organizations.

AREA OF EMPHASIS REQUIREMENTS

HPML 681	Applied Health Care Leadership	3
HPML 682	Managing Quality Improvement in Healthcare	3
HPML 683	Ethical Leadership in Public Health	3
Total Hours		**9**

APPLIED PUBLIC HEALTH MANAGEMENT AREA OF EMPHASIS SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
BIOS 601	3	SBHS 601	3
BIOS 602	1	HPML 622	3
HPML 601	3	HPML 624	3
HPML 620	3	HPML 696	1
PUBH 696	1	HPML 681	3
	11		**13**

Second Year

Fall	Hours	Spring	Hours
EPID 601	3	HPML 629	3
HPML 610	3	OEHS 601	3
PUBH 622	3	HPML 682	3
HPML 683	3		
	12		**9**

Total credit hours: 45

WORK-SITE WELLNESS AREA OF EMPHASIS

Students will complete a 12-credit hour course sequence designed to impart the work-site wellness skills, knowledge, and competencies.

Competencies include:

- Design needs and resource assessments relative to the implementation of a work-site wellness program
- Create and evaluate work-site wellness interventions
- Discern the individual, organizational, structural, and societal factors that contribute to health and safety in the workplace
- Derive the value of public health and wellness programs and policies to justify investment by business organizations

AREA OF EMPHASIS REQUIREMENTS

PUBH 536	Worksite Wellness	3
HPML 680	Performance and Economic Evaluation for Public Health	3
OEHS 623	Occupational Injury Prevention	3
SBHS 633	Women and Violence	3
Total Hours		**12**

WORKSITE WELLNESS AREA OF EMPHASIS SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 601	3	OEHS 601	3	PUBH 622	3
BIOS 601	3	HPML 601	3		
BIOS 602	1	PUBH 696	1		
SBHS 601	3	SBHS 611 or 660	3		
SBHS 610	3				
PUBH 696	1				
	14		**10**		**3**

Second Year

Fall	Hours	Spring	Hours
SBHS 613	3	HPML 680	3
SBHS 615 or 614	3	SBHS 633	3
OEHS 623	3	SBHS 629	2
PUBH 536	3		
	12		**8**

Total credit hours: 47

Occupational and Environmental Health Sciences

Degrees Offered:

- Master of Public Health
- Doctor of Philosophy

MPH IN OCCUPATIONAL AND ENVIRONMENTAL HEALTH SCIENCES

The MPH degree in occupational and environmental health sciences provides students with the practical skills needed to solve occupational and environmental health problems. Students will focus on understanding occupational and environmental processes and their effects on humankind and developing the skills needed to assess and address their health consequences. Both the internship and practicum have been designed to place students in settings in which they can apply their newly acquired knowledge and skills and continue to learn from professionals in their field while working on current, relevant public health problems.

The MPH curriculum is designed so that students have a broad exposure to the core disciplines in public health and an introduction to occupational and environmental sciences in the first year of the program. An internship or proposal/practicum is required in the second year of study. The degree would typically take two years to complete. A minimum of forty-three credit hours are required for the MPH in occupational and environmental health sciences. Students complete eighteen credit hours of School of Public Health core courses, sixteen credit hours of departmental required courses, and nine credit hours of electives.

Upon completion of the MPH in occupational and environmental health sciences, students will be prepared to either continue their graduate education at the doctoral level or begin a career as consultants, managers, and leaders in public health practice, research settings, government, or industry, addressing such issues as environmental pollution related to air, water, and waste, occupational health hazards, and work-related injury. The MPH degree is ideal for recent college graduates or early to mid-career public health professionals seeking to develop or advance their current careers.

PH.D. IN OCCUPATIONAL AND ENVIRONMENTAL HEALTH SCIENCES

http://publichealth.hsc.wvu.edu/oehs/

The Ph.D. in occupational and environmental health sciences is a degree for scientist-practitioners in the area of prevention of premature mortality, morbidity, and disability resulting from occupational and environmental exposures, communicable and chronic disease, and injury. This degree emphasizes both evidence-based primary prevention of disease and injury and health promotion research and practice. Students completing this degree will have the necessary theoretical knowledge and critical understanding of occupational and environmental health problems, including analytical and methodological research skills, to investigate, evaluate, and find solutions to public health challenges.

The Department of Occupational and Environmental Sciences has a close collaboration with the National Institute of Occupational Safety and Health (NIOSH), which shares our Health Sciences campus in Morgantown. Collaborating NIOSH faculty add important enrichment and mentorship potential for the interested student.

FACULTY

INTERIM CHAIR

- Michael McCawley - Ph.D. (New York University)

PROFESSOR

- Alan Ducatman - MSc (City University of New York)

ASSOCIATE PROFESSOR

- Lan Guo - Ph.D. (West Virginia University)
- Charles L. Werntz III - DO (Kirksville College of Osteopathic Medicine)

ASSISTANT PROFESSORS

- Rachel T. Abraham - MD, MPH (Emory University)
- Anna Allen - DO, MPH (West Virginia University)
- Travis Knuckles - Ph.D. (North Carolina State)
- Douglas Myers - ScD (University of Massachusetts)
- Kimberly Rauscher - ScD (University of Massachusetts at Lowell)

RESEARCH PROFESSOR

- Mike Luster - Ph.D. (Loyola University of Chicago)

LECTURER

- Doug Boyer - Ph.D. (West Virginia University)

Admission Guidelines (MPH In Occupational and Environmental Health Sciences)

- Baccalaureate degree from an accredited college or university with a preferred overall GPA of 3.0
- GRE scores of 150 (verbal), 147 (quantitative), 3.0 (analytical writing)
- TOEFL scores (minimum 550 paper-based) (minimum 213 computer-based)*International Students Only*

MPH Applicants (Fall Admissions Only)

If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our School of Public Health is CEPH (http://www.ceph.org) accredited, and we participate in SOPHAS (http://www.sophas.org) (Schools of Public Health Application Service). **Our MPH Admissions is a two-step process.** All MPH applications must be submitted through the national SOPHAS service and applicants must also submit a WVU Graduate application.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires original transcripts from all U.S. institutions attended. (Including Study Abroad) **Please see each Major's website for additional application requirements.**

There is a $120 SOPHAS application fee. Applicants must indicate their first choice of MPH major, and may also indicate a second choice. A maximum of two choices is allowed.

- E-submit your application as soon as the applicant entered information is complete. Do <u>NOT</u> wait for SOPHAS to receive transcripts, recommendations or test scores.
- Plan Ahead! Allow up to **4 weeks** for SOPHAS to verify grades, process and mail your application to your designated institutions after your documents have been received.
- SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers (http://www.sophas.org/Documents/ fee_waiver_request_form_PeaceCorps.pdf), McNair Scholars (http://www.sophas.org/Documents/fee_waiver_request_form_Mcnair.pdf), Gates Millennium Scholars Program (http://www.sophas.org/Documents/fee_waiver_request_form_GMSP.pdf), AmeriCorps (http://www.sophas.org/Documents/fee_waiver_request_form_Americorps.pdf), U.S. (http://www.sophas.org/Documents/ fee_waiver_request_form_US.pdf) and International (http://www.sophas.org/Documents/fee_waiver_request_form_Intl.pdf) applicants.

Completed applications will be reviewed by the department. Students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU graduate application and pay the $60.00 WVU application fee.

Admission decisions to the West Virginia School of Public Health are conducted in two rounds. Fully completed SOPHAS **applications received by April 15 will be considered first.** Incomplete applications and new fully completed applications received by June 1 will be considered for those degree programs/concentrations that have openings after the April 15 decisions. Applicants are strongly encouraged to submit their completed applications by the April 15 deadline in order to be considered during the first round.

*Important: When sending GRE scores for consideration for admission to WVU, please use the WVU School of Public Health College GRE **code: 0157**. This code MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete. Incomplete applications cannot be reviewed for an admissions decision. [Each program at West Virginia University has a specific code]*

All other degrees and certificate programs will use the WVU application system.

Admission Guidelines for the Ph.D.

- Baccalaureate degree from an accredited college or university with some background in science (preferred GPA: 3.0 overall)
- GRE scores of: Verbal: sixtieth percentile or greater; Quantitative: fiftieth percentile or greater;
  or, a combined score of twenty-four or higher on the MCAT, with nine or higher in verbal;
  or, a terminal degree
- A completed Ph.D. application, including a Statement of Purpose (see below for details)
- Three letters of recommendation

<u>Statement of Purpose</u>

The essay is a critical piece of the admissions process. We will evaluate both the content of the essay and your writing skills in considering your application. All applicants should write an essay of 600 words or less. In this essay, please address the following questions:

- What is it about Occupational and Environmental Health Sciences (OEHS) that appeals to you?
- What have you done to prepare yourself for training in OEHS?
- How will you use your training in OEHS?
- What area(s) within OEHS do you wish to emphasize and why?
- Applicants should also include any additional information about their interests, prior background, or special circumstances which may be helpful to the Admissions Committee in evaluation of the application.

Students interested in applying for the Ph.D. in occupational and environmental health must:

If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our School of Public Health is CEPH (http://www.ceph.org) accredited, and we participate in SOPHAS (http://www.sophas.org) (Schools of Public Health Application Service). **<u>Our Ph.D. Admissions process is a two-step process</u>**. All **Ph.D. applications** must be submitted through the national SOPHAS service and **applicants must also submit a WVU Graduate application**.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires **original transcripts** from **ALL** U.S. institutions attended! (Even Study Abroad) **Please see each Major's website for additional application requirements.**

There is a $120 SOPHAS application fee. Applicants **must** indicate their first choice of **Ph.D.** major, and may also indicate a second choice. A maximum of two choices is allowed.

- E-submit your application as soon as the applicant entered information is complete. Do <u>NOT</u> wait for SOPHAS to receive transcripts, recommendations or test scores.
- Plan Ahead! Allow up to **4 weeks** for SOPHAS to verify grades, process and mail your application to your designated institutions after your documents have been received.

- SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers (http://www.sophas.org/Documents/fee_waiver_request_form_PeaceCorps.pdf), McNair Scholars (http://www.sophas.org/Documents/fee_waiver_request_form_Mcnair.pdf), Gates Millennium Scholars Program (http://www.sophas.org/Documents/fee_waiver_request_form_GMSP.pdf), AmeriCorps (http://www.sophas.org/Documents/fee_waiver_request_form_Americorps.pdf), U.S. (http://www.sophas.org/Documents/fee_waiver_request_form_US.pdf) and International (http://www.sophas.org/Documents/fee_waiver_request_form_Intl.pdf) applicants.

Applications that are complete will then be reviewed by the department. Students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU Graduate application and pay the $60.00 WVU application fee.

Important: When sending GRE scores for consideration for admission at WVU use the GRE WVU School of Public Health College **code: 0157.** *This is the code that MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete and therefore will not be reviewed for an admissions decision. [There are different codes for other programs at West Virginia University.]*

Fall Admissions Only: Fully completed applications received by February 15 are considered.

STUDENTS ENTERING THE PROGRAM WITH APPROVED MASTER'S DEGREES

Some students who are admitted to the Ph.D. program will have previously completed a master's degree in the discipline. Per School of Public Health academic policies, some of these students may be eligible to enter the program with advanced standing and be required to complete an abbreviated version of the curriculum. If you have previously completed a master's degree in the discipline, please see the full policy related to "Applying Previously Completed MPH/MS Coursework to PhD Program Majors" available on the school's website and contact your advisor to determine your eligibility as soon as possible.

Master of Public Health

Occupational and Environmental Health Sciences Major Competencies

- Compile the environmental and socio-economic elements of sustaining a healthy environment and societal well-being as an environmental practitioner.
- Summarize specific human health hazards in various environmental media and systems.
- Assess methodologies of primary and secondary prevention for environmental health issues.
- Appraise existing occupational and environmental hazards.
- Assess the potential for problems in an occupational or environmental setting.
- Discern appropriate methods for the control of occupational hazards.
- Assess the basic principles and applications within the science of toxicology.
- Evaluate the different classes of environmental toxic substances and stressors that have known effects on individuals or population.
- Appraise the different routes of toxic exposure, metabolic pathways, mechanisms of distribution within the body, and elimination processes.
- Evaluate the effects of different toxicants and stressors in terms of target effect on the cellular, organ system, and whole body-levels.
- Summarize the epidemiology of occupational injury which includes the extent, nature, and mechanisms of occupational injury as well as their distribution across occupations and industries.
- Contrast the strengths and weaknesses of the occupational injury surveillance systems used in the US.
- Discern the individual, organizational, structural, and societal factors that contribute to occupational injury.
- Propose effective interventions that can help prevent occupational injury.
- Apply MPH occupational and environmental health sciences competencies in a practice based experience.
- Integrate and synthesize MPH occupational and environmental health sciences competencies in the context of a culminating experience.

MAJOR REQUIREMENTS

MPH Core Curriculum:

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
EPID 601	Public Health Epidemiology	3
HPML 601	Foundations of Health and Policy	3
OEHS 601	Environmental Health	3
SBHS 601	Social and Behavioral Theory	3
PUBH 696	Graduate Seminar	1
Concentration Curriculum:		
OEHS 610	Environmental Practice	3
OEHS 620	Occupational and Environmental Hazard Assessment	4
OEHS 622	Public Health Toxicology	3

OEHS 623	Occupational Injury Prevention	3
OEHS 696	Graduate Seminar	1
PUBH 622	MPH Practice-Based Experience	6
OEHS 629	Capstone	1
Electives		5
OEHS 630	Public Health Biology	
OEHS 665	Worksite Evaluation	
OEHS 691	Advanced Topics	
Total Hours		**43**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
OEHS 601	3	OEHS 610	3
OEHS 620	4	OEHS 622	3
OEHS 623	3	OEHS 696	1
HPML 601	3	SBHS 601	3
PUBH 696	1		
	14		**10**

Second Year

Fall	Hours	Spring	Hours
BIOS 601	3	PUBH 622	6
BIOS 602	1	OEHS 629	1
EPID 601	3	Elective	2
Elective	3		
	10		**9**

Total credit hours: 43

PRACTICE-BASED EXPERIENCE

Practice-based Experience: It is six credits, which translates to 360 hours of work, and has been designed to place students in occupational or environmental settings to further develop and apply their newly acquired knowledge and skills in a way that addresses real-world problems. The nature of the practice-based experience is dependent on the student and opportunities. An appropriate practice-based experience could include a local health department, a rural healthcare facility, an industrial plant, or an agency of the state or federal government.

The purpose of the practice-based experience is to provide experience in most, if not all, of the listed competencies for this degree. A primary focus of all these experiences is to provide skill building and practical experience in an environmental or occupational health setting. Development and application of analytical skills is emphasized; these skills may include a collection or data analysis of an exposure database, formulation of control measures, or oversight of public environmental activities.

With the guidance of a faculty mentor from the Department of Occupational and Environmental Health Sciences, as well as a preceptor at the location of the internship and the SPH Internship Coordinator, students will be expected to participate in a meaningful way. They will work with their academic team to identify a relevant problem and then develop and conduct an analysis and evaluation of that problem or acquire a new skill such as exposure assessment, on which they will be evaluated. Students will be required to present their findings to an appropriate audience of practice-based related professionals in a poster presentation.

CULMINATING EXPERIENCE/CAPSTONE

This course is to be taken in the last semester of study. Students are required to demonstrate the ability to synthesize and integrate knowledge and competencies across the full breadth of the MPH-OEHS curriculum.

COMPETENCY ASSESSMENT

The MPH degree will be awarded based on successful completion of all academic requirements and demonstrated achievement of competencies. The department chair, with input from the OEHS faculty, will review competency performance evidence and based on the evidence reviewed, determine if the student has achieved the expected competencies. If a determination is made that competencies have not been achieved, the department chair will inform the student what must be accomplished to demonstrate achievement and therefore be recommended for awarding of the MPH degree. This may include taking additional courses.

WORK-SITE WELLNESS AREA OF EMPHASIS

Students will complete a 12-credit hour course sequence designed to impart the work-site wellness skills, knowledge, and competencies.

Competencies include:

- Design needs and resource assessments relative to the implementation of a work-site wellness program
- Create and evaluate work-site wellness interventions
- Discern the individual, organizational, structural, and societal factors that contribute to health and safety in the workplace
- Derive the value of public health and wellness programs and policies to justify investment by business organizations

AREA OF EMPHASIS REQUIREMENTS

PUBH 536	Worksite Wellness	3
HPML 680	Performance and Economic Evaluation for Public Health	3
OEHS 623	Occupational Injury Prevention	3
SBHS 633	Women and Violence	3
Total Hours		**12**

WORKSITE WELLNESS AREA OF EMPHASIS SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 601	3	OEHS 601	3	PUBH 622	3
BIOS 601	3	HPML 601	3		
BIOS 602	1	PUBH 696	1		
SBHS 601	3	SBHS 611 or 660	3		
SBHS 610	3				
PUBH 696	1				
	14		**10**		**3**

Second Year

Fall	Hours	Spring	Hours
SBHS 613	3	HPML 680	3
SBHS 615 or 614	3	SBHS 633	3
OEHS 623	3	SBHS 629	2
PUBH 536	3		
	12		**8**

Total credit hours: 47

Doctor of Philosophy

Occupational and Environmental Health Sciences Major Competencies

- Analyze issues and problems in occupational and environmental health and safety using critical evaluation, applied research methodology, and statistical methods
- Characterize the human health effects of major environmental and occupational hazards, both acute and chronic, including: air pollution, contamination of drinking water, and physical hazards
- Analyze sources, pathways, and routes of exposure to environmental and occupational hazards, identify populations at high risk of exposure, and communicate that risk effectively
- Create programs that protect the environment using proven technologies and novel approaches

MAJOR REQUIREMENTS

OEHS 601	Environmental Health	3
OEHS 620	Occupational and Environmental Hazard Assessment	4
OEHS 732	Occupational Injury Prevention	3
EPID 745	Epigenetics and Systems Biology	3
OEHS 796	Graduate Seminar	1
OEHS 796	Graduate Seminar	1

OEHS 790	Teaching Practicum	2
EPID 601	Public Health Epidemiology	3
EPID 769	Occupational Epidemiology	3
HPML 601	Foundations of Health and Policy	3
BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
BIOS 603	Applied Biostatistics 2	3
SBHS 601	Social and Behavioral Theory	3
SBHS 701	Public Health Grant Writing	3
BMS 700	Scientific Integrity	1
BMS 720	Scientific Writing	2
Electives		18
Research		58
OEHS 797	Research	
Oral Qualifying Examination		
Written Qualifying Examination		
Dissertation Proposal		
Dissertation Defense		
Total Hours		**118**

ELECTIVES

Students will complete a minimum of eighteen credit hours of electives during their Ph.D. program. These may be selected from among the department's, School of Public Health's, or university's many course offerings. These courses will be discussed and approved with the faculty advisor.

TEACHING PRACTICUMS

Students will spend two semesters in a mentored relationship with a faculty member, assisting with the implementation of a course.

COMPREHENSIVE EXAMS

The Qualifying Examination is the capstone experience for Ph.D. program coursework. Successful completion of the examination signifies competence in the field of public health sciences and indicates readiness to engage in independent research. The Qualifying Examination consists of both a written and oral component. Qualifying exams should not include testing on content of the dissertation. The oral defense of the dissertation proposal will serve that purpose. The Qualifying Examination is planned and administered by the five-member dissertation committee, under the direction of the committee chairperson. If necessary and at the discretion of the Program Director, another faculty member may be appointed to serve on the committee.

The oral portion of the exam may not be attempted until the written component is completed and must be attempted within two academic weeks of the written component. Students are expected to take the qualifying exam during the summer sessions between their fourth and fifth academic semesters. However, the written component must be completed no later than the second week in July. Students are not eligible to begin their dissertation, or enroll in dissertation hours, until they have successfully completed the Qualifying Examination.

RESEARCH

Students will participate in research rotations during their first year, meeting and working with research faculty with similar interests in order to develop mentorships for dissertation research. A total of fifty-eight credit hours of rotations and dissertation research will be completed during the program.

THE DISSERTATION PROPOSAL, DEFENSE, AND APPROVAL

Although students may choose to pursue a traditional dissertation format, the majority of Ph.D. students format their dissertation using the Three Journal Article Format (JAF). The decision of which format to use is something that students should discuss with chairperson of their dissertation committee. As a reminder, students will not be allowed to defend their dissertations until they have at least one first-authored publication in any form of acceptance, based on their Ph.D. dissertation, in a peer-reviewed journal by the time of the dissertation defense. Note: This required publication does not necessarily need to be one of the three articles generated through the JAF dissertation format.

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 601	3	HPML 601	3	BMS 720	2
BIOS 601	3	SBHS 601	3	OEHS 797	2

Fall	Hours	Spring	Hours	Summer	Hours
BIOS 602	1	BIOS 603	3	Elective	3
OEHS 601	3	OEHS 797	1		
BMS 700	1	SBHS 701	3		
OEHS 620	4				
OEHS 796	1				
	16		**13**		**7**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 769	3	Elective	3	OEHS 797	8
EPID 745	3	Elective	3	Dissertation Proposal	
OEHS 790	1	Elective	3		
OEHS 732	3	Elective	3		
OEHS 797	1	OEHS 797	3		
Elective	3	Qualifying Exam			
	14		**15**		**8**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
OEHS 797	8	OEHS 797	10	OEHS 797	6
OEHS 790	1	OEHS 790	1		
Proposal Defense					
	9		**11**		**6**

Fourth Year

Fall	Hours	Spring	Hours
OEHS 796	1	OEHS 797	9
OEHS 797	9		
	10		**9**

Total credit hours: 118

WORK-SITE WELLNESS AREA OF EMPHASIS

Students will complete a 12-credit hour course sequence designed to impart the work-site wellness skills, knowledge, and competencies.

Competencies include:

- Design needs and resource assessments relative to the implementation of a work-site wellness program
- Create and evaluate work-site wellness interventions
- Discern the individual, organizational, structural, and societal factors that contribute to health and safety in the workplace
- Derive the value of public health and wellness programs and policies to justify investment by business organizations

AREA OF EMPHASIS REQUIREMENTS

PUBH 536	Worksite Wellness	3
HPML 680	Performance and Economic Evaluation for Public Health	3
OEHS 623	Occupational Injury Prevention	3
SBHS 633	Women and Violence	3
Total Hours		**12**

WORKSITE WELLNESS AREA OF EMPHASIS SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 601	3	OEHS 601	3	PUBH 622	3
BIOS 601	3	HPML 601	3		
BIOS 602	1	PUBH 696	1		
SBHS 601	3	SBHS 611 or 660	3		
SBHS 610	3				

PUBH 696	1		
	14	**10**	**3**

Second Year

Fall	Hours Spring	Hours
SBHS 613	3 HPML 680	3
SBHS 615 or 614	3 SBHS 633	3
OEHS 623	3 SBHS 629	2
PUBH 536	3	
	12	**8**

Total credit hours: 47

School Health Education

Degree Offered

- MS in School Health Education

The mission of the MS in School Health program focuses on preparing school health professionals to provide public health leadership on school campuses in their roles as teachers, guidance counselors, school nurses, and administrators. Our program emphasizes the importance of creating an environment in which students are most likely to choose healthy behaviors that support academic success and positive life outcomes. This includes providing excellent health education services, developing a safe and supportive school culture characterized by positive relationships with concerned adults and peers, advocating for school policies that support student wellbeing, and working collaboratively with parents, other caregivers, and the community-at-large to support student and school success.

For more information about the MS in School Health Education program, please contact:

Michael J. Mann
Assistant Professor
West Virginia University
School of Public Health
Department of Social and Behavioral Sciences
mjmann@hsc.wvu.edu
(304) 777-7057

Admissions and the Application Process for the MS in School Health Education

ADMISSION REQUIREMENTS

Our program has been designed for currently certified teachers interested in completing graduate study in school health. To be considered for admission, all applicants must meet the following minimum requirements:

1.   A baccalaureate degree from an accredited college or university with a preferred GPA of 3.0
2.   A current teaching certificate
3.   Three letters of recommendation that suggest a high probability of successful graduate study. These letters of recommendation can be from either professional or academic sources (ex: from mentors, principals, professors, etc)

Need More Information? Please contact Dr. Michael J. Mann at mjmann@hsc.wvu.edu or 304-293-3560/304-777-7057.

APPLICATION PROCESS FOR THE MS IN SCHOOL HEALTH EDUCATION

Students interested in applying for the MS in School Health Education must:

- Complete and submit the online WVU graduate application and pay the university's processing fee. You can find this application located at: https://app.applyyourself.com/AYApplicantLogin/ApplicantConnectLogin.asp?id=wvugrad
- Have each of the institutions of higher education you have previously attended submit official **transcripts to the address provided below**. These must be official transcripts sent directly from these school's registrar to:

WVU Admissions and Records
PO Box 6009
Morgantown, WV 26506-6009
(304) 293-2121

- Send the following items in a single envelope to the address below:
    - A.   A completed MS in School Health Education application using the form available here,

B.   A current resume or curriculum vitae,

C.   Three letters of recommendation in individual envelopes that were sealed by the person making the recommendation. Please use the form provided here for all three recommendations.

D.   A one page statement of purpose describing your interest in the program and goals for the future,

E.   A copy of your current teaching certificate(s), if applicable.

You may mail your MS application, curriculum vitae or resume, recommendation letters, statement of purpose, and teaching certificate to:

WVU School of Public Health
MS SHE Admissions
PO Box 9190
One Medical Center Drive
Morgantown, WV 26506

ADMISSIONS DEADLINES

The MS in School Health Education has a rolling admissions process. Applications are accepted for fall, spring, and summer semesters. However, it is recommended that you submit your application materials a minimum of 4 weeks before the start of the semester you would like to begin. A good guideline for these deadlines is July 15th for fall admissions, December 15th for spring admissions, and April 15th for summer admissions. Although we will do our best to accommodate late applications, we cannot always ensure our ability to do so.

Need More Information? Please contact Dr. Michael J. Mann at mjmann@hsc.wvu.edu or 304-293-3560/304-777-7057.

Master of Science

Our curriculum consists of 30 hours worth of course work in school health and advanced curriculum and instruction. Full-time students can complete our curriculum in as little as one year. Part-time students can complete the program as quickly as four semesters if they begin during a summer semester or can choose a longer plan of study if that better meets their needs. All courses in this program are offered online and during the semesters indicated below. The required courses for this program include:

MAJOR REQUIREMENTS

CHPR 600	Foundations of Public Health for School Health Educators	3
CHPR 601	Emerging Research in Elementary School Health	3
CHPR 602	Emerging Research in Secondary School Health	3
CHPR 640	School Health Program Design	3
CHPR 645	Evaluating School Health Programs	3
CHPR 671	Community and Context in School Health	3
CHPR 675	Leadership and Advocacy in School Health	3
C&I 604	School Curriculum	3
C&I 687	Advanced Teaching Strategies	3
C&I 688	Classroom Organization and Management	3
Total Hours		**30**

Social and Behavioral Sciences

DEGREES OFFERED:

- Master of Public Health
- Doctor of Philosophy

MPH IN SOCIAL AND BEHAVIORAL SCIENCES

The MPH degree in Social and Behavioral Sciences (SBHS) addresses the behavioral, social, and environmental factors related to individual and population health and health disparities over the life span. Research and practice in this track contributes to the development, administration, and evaluation of programs and policies in public health to promote and sustain healthy environments and lives for individuals and populations. The SBHS MPH is offered on campus and online.

The curriculum is designed so that students have a broad exposure to the core disciplines in public health and introduction to the social and behavioral sciences during their first academic year with a greater focus on SBHS in their second academic year. The standard schedule allows for students to select three electives (nine credit hours). It is highly recommended that these electives be selected from the approved list of electives for students in

SBHS.Students may also opt to complete an area of emphasis (currently public health practice or worksite wellness). Note that the completion of the worksite wellness area of emphasis will increase total program hours to 47.

A student who graduates with an MPH in Social and Behavioral Science from WVU will be qualified to work and provide leadership in public health and research settings at national, state or local levels, or work in the public or private sector on health promotion program implementations and evaluation efforts.

PH.D. IN SOCIAL AND BEHAVIORAL SCIENCES

The mission for the Ph.D. in social and behavioral sciences is to provide state of the art doctoral education in the theory and application of social and behavioral science to a select group of highly qualified and committed students desiring to transform public health. Our program trains students using a research intensive curriculum led by a distinguished faculty at the cutting edge of public health science. This program emphasizes both evidence-based, theory-driven primary prevention of disease and injury and health promotion research and practice. Graduates will complete their degrees with a competitive record of research achievement, ready to embark on high-impact research careers.

The curriculum is designed so that students receive a methodologically-intense training and one-on-one research experience with faculty in Social and Behavioral Sciences, typically over a four-year period.

The first two years of the program emphasize research and statistical methods complemented by theoretical and process-oriented coursework relevant to Social and Behavioral Sciences. During the final two years of the program, students are engaged in their dissertation research while given the freedom to further diversify their training by choosing electives.

There are 117 required credits for this degree. The curriculum is designed so that students receive methodologically-intense training and one-on-one research experience with faculty in the social and behavioral sciences. The first two years of the program emphasize research and statistical methods complemented by theoretical and process-oriented coursework relevant to the social and behavioral sciences. During the final two years of the program, students are engaged in their dissertation research while given the freedom to further diversify their training by completing teaching practice and choosing three additional electives.

FACULTY

CHAIR
- Keith Zulllig, Professor - Ph.D. (University of South Carolina)

PROFESSORS
- Geri Dino - Ph.D. (Kansas State University)
- Ranjita Misra - Ph.D. (Old Dominion University)

ASSISTANT PROFESSORS
- Christiaan Abildso - Ph.D. (West Virginia University)
- Danielle Davidov - Ph.D. (West Virginia University)
- Haslyn Hunte - Ph.D. (University of Michigan)
- Alfgeir Kristajansson - Ph.D. (Karolinska Institute)
- Michael Mann - PhD (University of Florida)
- Toni Morris - MS (West Virginia University)
- Cecil Pollard - MA (West Virginia University)
- Nancy O'Hara Tompkins - Ph.D. (University of Maryland)

TEACHING ASSISTANT PROFESSOR
- Janet B. Hunt - MPH (University of Tennessee)

INSTRUCTOR
- Bobbi Sykes - MS (West Virginia University)

ADJUNCT PROFESSORS
- Ahmed Aboraya - MD (Cairo University)
- Dwight Harshbarger - Ph.D. (University of North Dakota)
- Samuel Zizzi - EdD (West Virginia University)

ADJUNCT ASSOCIATE PROFESSORS
- Joy Buck - Ph.D. (University of Virginia)
- Ilana Chertok - Ph.D. (Ben-Gurion University)

- Cindy Fitch - Ph.D. (Case Western Reserve University)

ADJUNCT ASSISTANT PROFESSORS

- Muazzam Nasrullah - MD (Allama Iqbal Medical College, Lahore Pakistan)
- Judith Sedgeman - EdD (West Virginia University)
- Melissa Olfert - Ph.D. (Loma Linda University)
- Thomas Sims - MA (Georgia State University)

ADJUNCT INSTRUCTOR

- Janie Leary - Ph.D. (West Virginia University)
- Janet Reger-Nash - MS (University of California)
- Gary Sams - MS (University of Pittsburgh)
- Gina Sharps - MPH (West Virginia University)
- Matthew West - MBA (Duke University)

FACULTY EMERITI

- William Reger-Nash - EdD (West Virginia University)
- Kenneth Simon - EdD (Columbia University)

Admission Guidelines for the MPH in Social and Behavioral (On Campus or Online)

- Baccalaureate degree from an accredited college or university with a preferred GPA of 3.0
- GRE scores of 146 (verbal), 144 (quantitative), 3.0 (analytical writing)
- TOEFL scores (minimum 550 paper-based) (minimum 213 computer-based) *International Students Only*

MPH (Fall Admissions Only):

If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our School of Public Health is CEPH (http://www.ceph.org)-accredited, and we participate in SOPHAS (Schools of Public Health Application Service). **Our MPH Admissions process is a two-step process**. All **MPH applications** must be submitted through the national SOPHAS service and **applicants must also submit a WVU Graduate application**.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires **original transcripts** from **ALL** U.S. institutions attended! (Even Study Abroad) **Please see each Major's website for additional application requirements.**

There is a $120 SOPHAS application fee. Applicants **must** indicate their first choice of MPH major, and may also indicate a second choice. A maximum of two choices is allowed.

- E-submit your application as soon as the applicant entered information is complete. Do NOT wait for SOPHAS to receive transcripts, recommendations or test scores.
- Plan Ahead! Allow up to **4 weeks** for SOPHAS to verify grades, process and mail your application to your designated institutions after your documents have been received.
- SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers, McNair Scholars, Gates Millennium Scholars Program, AmeriCorps, U.S. and International applicants.

Applications that are complete will then be reviewed by the department. Students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU Graduate application and pay the $60.00 WVU application fee.

Important: When sending GRE scores for consideration for admission at WVU use the GRE WVU School of Public Health College **code: 0157.** *This is the code that MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete and therefore will not be reviewed for an admissions decision. [There are different codes for other programs at West Virginia University.]*

FALL ADMISSIONS ONLY:

Fully completed applications received by April 15 will be considered first. Incomplete applications and new fully completed applications received by June 1 will be considered second, for those degree programs/concentrations that have openings after the April 15 decisions

Admission Guidelines for Ph.D. in Social and Behavioral Sciences

- Baccalaureate degree from an accredited college or university (preferred GPA: 3.0 overall) or a Master of Public Health degree from an accredited program or school (preferred)

- GRE scores: 146 quantitative, 156 verbal, and 3.5 for analytical writing
- A completed Ph.D. application, including a Statement of Purpose (see below for details)
- Three letters of recommendation

Statement of Purpose

The essay is a critical piece of the admissions process. We will evaluate both the content of the essay and your writing skills in considering your application. All applicants should write an essay of 1000 words or less. In this essay, please address the following questions:

- What is it about Social and Behavioral Sciences (SBHS) that appeals to you?
- What are your long term career goals?
- What area(s) of research do you wish to emphasize and why?
- Applicants should also include any additional information about their interests, prior background or special circumstances that may be helpful to the Admissions Committee in evaluation of the application.

Students interested in applying for the Ph.D. in social and behavioral science (SBHS) must:

- Complete the WVU graduate application and submit with the processing fee: https://app.applyyourself.com/AYApplicantLogin/ApplicantConnectLogin.asp?id=wvugrad
- Submit official school transcripts and official GRE scores to:

    WVU Admissions and Records

    PO Box 6009

    Morgantown, WV 26506-6009

    (304) 293-2121

- Complete the Ph.D. application online and indicate SBHS as your preference: http://publichealth.hsc.wvu.edu/apply-now/
- Submit three academic letters of recommendation and CV/Resume

You must mail your completed recommendation letters and CV/Resume to:

    WVU School of Public Health

Ph.D. Admissions

    PO Box 9190

    One Medical Center Drive

    Morgantown, WV 26506

Fall Admissions Only: Fully completed applications received by February 15 are considered.

STUDENTS ENTERING THE PROGRAM WITH APPROVED MASTER'S DEGREES

Some students who are admitted to the Ph.D. program will have previously completed a master's degree in the discipline. Per School of Public Health academic policies, some of these students may be eligible to enter the program with advanced standing and be required to complete an abbreviated version of the curriculum. If you have previously completed a master's degree in the discipline, please see the full policy related to "Applying Previously Completed MPH/MS Coursework to PhD Program Majors" available on the school's website and contact your advisor to determine your eligibility as soon as possible.

Master of Public Health

Social and Behavioral Sciences Major Competencies

- Summarize sound public health research methodology used in the social and behavioral sciences.
- Evaluate public health research data using inferential statistical techniques.
- Distinguish key factors to be considered when determining appropriate sampling techniques to assess community needs and health issues.
- Illustrate an understanding of key factors related to question construction and interview techniques.
- Summarize key factors and strategies to develop successful health interventions in communities.
- Summarize social and behavioral models or theories that are used to guide successful community health interventions.
- Summarize the key components of the PRECEDE/PROCEED model in the planning and delivery of public health program evaluations.

- Summarize the three principal types of experimental designs in program evaluation.

MAJOR REQUIREMENTS

MPH Core Curriculum:

BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
EPID 601	Public Health Epidemiology	3
HPML 601	Foundations of Health and Policy	3
OEHS 601	Environmental Health	3
SBHS 601	Social and Behavioral Theory	3
PUBH 696	Graduate Seminar	1
Concentration Curriculum:		
SBHS 610	Public Health Research Methods	3
SBHS 611	Community Assessment	3
or SBHS 660	Survey Research Methods	
SBHS 614	Community-Based Participatory Research	3
or SBHS 615	Intervention Design	
SBHS 613	Public Health Program Evaluation	3
SBHS 696	Graduate Seminar	1
Practice-based/Culminating Experiences & Electives (14 credits*):		14
PUBH 622	MPH Practice-Based Experience (3 hours)	*
Choose One Option:		
Non-Thesis Option		
SBHS 629	Capstone Course (2hours)	
Nine Hours of Approved Electives		*
Thesis Option*		
SBHS 697	Research (1 hour)	*
SBHS 698	Thesis or Dissertation (4 hours)	*
Six Hours of Approved Electives		*
Total Hours		**44**

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours
EPID 601	3	SBHS 601	3
BIOS 601	3	HPML 601	3
BIOS 602	1	SBHS 611 or 660	3
SBHS 610	3	SBHS 696	1
PUBH 696	1		
	11		**10**

Second Year

Fall	Hours	Spring	Hours
PUBH 622	3	OEHS 601	3
HPML 601	3	Elective	3
SBHS 615 or 614	3	SBHS 629	2
SBHS 613	3	Elective	3
	12		**11**

Total credit hours: 44

PRACTICE-BASED EXPERIENCE

All students will be required to complete a practice-based experience as part of the SBHS MPH program. The practice-based field experience can be completed following one full year of MPH coursework; when possible, students should have completed the MPH school-level core courses and

a minimum of one course required by their departmental discipline. Under certain circumstances, exceptions may be made but only with advance arrangement with and consent of the Instructor, Department Chair, and the student's Faculty Advisor. The practice-based experience will be a 180-hour placement in an agency or organization that provides an SBHS-focused experience (no less than 4.5 weeks of placement at 40 hours per week, or 9 weeks of placement at 20 hours per week) and will include identification of site preceptor, learning objectives, field reports, and final evaluation.

CULMINATING EXPERIENCE: CAPSTONE COURSE OR THESIS

A primary focus of all culminating experiences is to provide skill building and practical experience in the social and behavioral sciences in most, if not all, of the listed competencies for this degree.

There are two options for the culminating experience, the nature of which would be dependent on the student and available opportunities. These include either a Capstone Course or Thesis (as described below) that focuses on SBHS. The student will be expected to engage in meaningful synthesis and integration of the core and SBHS departmental competencies (Capstone Course) or behavioral sciences research project (Thesis).

Option 1:

Non-Thesis/Capstone Course

- The SBHS capstone is the culminating experience for social and behavioral sciences majors in the MPH program and requires students to demonstrate their capacity to synthesize and integrate the core and SBHS departmental competencies via a paper and poster presentation.

Option 2:

Thesis Option

- The thesis requirement is designed to provide the student with an opportunity to integrate and synthesize the major components of the MPH/SBHS learning experience and to apply the principles of public health by engaging in an applied research project of a specific topic area. The student is expected to demonstrate verbal and technical proficiency in expository writing. The topic must be one of public health significance. Students are required to make an oral proposal and defense, and produce a manuscript of publishable quality that can be submitted to an appropriate peer-reviewed journal mutually agreed upon between the committee Chair(s) and the student.

Thesis Entry Requirements:

- Student acceptance into the thesis option depends on the student being able to acquire a committee chair from the SBHS Graduate Faculty and a full committee. Individual thesis committee chairs/members may use a variety of methods for evaluating potential thesis candidates that include, but are not limited to, past academic performance, current academic performance, writing samples, and match between student-faculty research interests.

The MPH degree will be awarded based on successful completion of all academic requirements and demonstrated achievement of competencies. The department chair using a faculty panel will review competency performance evidence and based on the evidence reviewed, determine if the student has achieved the expected competencies. If a determination is made that competencies have not been achieved, the department chair will inform the student what must be accomplished to demonstrate achievement and therefore be recommended for awarding of the MPH degree. This may include taking additional courses.

WORK-SITE WELLNESS AREA OF EMPHASIS

Students will complete a 12-credit hour course sequence designed to impart the work-site wellness skills, knowledge, and competencies.

Competencies include:

- Design needs and resource assessments relative to the implementation of a work-site wellness program
- Create and evaluate work-site wellness interventions
- Discern the individual, organizational, structural, and societal factors that contribute to health and safety in the workplace
- Derive the value of public health and wellness programs and policies to justify investment by business organizations

AREA OF EMPHASIS REQUIREMENTS

PUBH 536	Worksite Wellness	3
HPML 680	Performance and Economic Evaluation for Public Health	3
OEHS 623	Occupational Injury Prevention	3
SBHS 633	Women and Violence	3
Total Hours		**12**

WORKSITE WELLNESS AREA OF EMPHASIS SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 601	3	OEHS 601	3	PUBH 622	3
BIOS 601	3	HPML 601	3		
BIOS 602	1	PUBH 696	1		
SBHS 601	3	SBHS 611 or 660	3		
SBHS 610	3				
PUBH 696	1				
	14		**10**		**3**

Second Year

Fall	Hours	Spring	Hours
SBHS 613	3	HPML 680	3
SBHS 615 or 614	3	SBHS 633	3
OEHS 623	3	SBHS 629	2
PUBH 536	3		
	12		**8**

Total credit hours: 47

Doctor of Philosophy

Social and Behavioral Sciences Major Competencies

- Display broad knowledge and application of relevant public health social and behavioral theories to health promotion and disease prevention strategies
- Demonstrate rigorous understanding of methodological and statistical principles that enhance research in the public health sciences
- Review and synthesize pertinent behavioral literature and formulate focused specific aims and research questions that address identified knowledge gaps
- Design and conduct original research that uniquely contributes to social and behavioral science knowledge base
- Disseminate research findings through appropriate peer-reviewed publications and presentations and to other appropriate public health community audiences

MAJOR REQUIREMENTS

SBHS 601	Social and Behavioral Theory	3
SBHS 610	Public Health Research Methods	3
SBHS 611	Community Assessment	3
SBHS 613	Public Health Program Evaluation	3
SBHS 701	Public Health Grant Writing	3
SBHS 711	Research Translation for Health (Offered only during odd years)	3
SBHS 715	Intervention Design	3
SBHS 760	Survey Research Methods	3
SBHS 761	Qualitative Research Methods (Offered only during even years)	3
SBHS 763	Advanced Evaluation Public Health (Offered only during odd years)	3
BIOS 601	Applied Biostatistics 1	3
BIOS 602	Applied Biostatistics Lab	1
BIOS 603	Applied Biostatistics 2	3
BIOS 604	Applied Biostatistics 3	3
EPID 601	Public Health Epidemiology	3
C&I 789	Teaching in Higher Education	3
BMS 700	Scientific Integrity (and Ethics)	1
BMS 720	Scientific Writing	2
Graduate Seminar (taken 3 times)		3
SBHS 796	Graduate Seminar	
Research		53

SBHS 797	Research	
Electives		12
Qualifying Examination		
Dissertation Proposal		
Dissertation Defense		
Total Hours		**117**

ELECTIVES

Students will complete a minimum of twelve credit hours of electives during their Ph.D. program. These may be selected from among the department's, School of Public Health's, or university's many course offerings. These courses will be discussed and approved with the faculty advisor.

QUALIFYING EXAMINATION

The Qualifying Examination is the capstone experience for Ph.D. program coursework. Successful completion of the examination signifies competence in the field of public health sciences and indicates readiness to engage in independent research. The Qualifying Examination consists of both a written and oral component. Qualifying exams should not include testing on content of the dissertation. The oral defense of the dissertation proposal will serve that purpose. The Qualifying Examination is planned and administered by the five-member dissertation committee, under the direction of the committee chairperson. If necessary and at the discretion of the Program Director, another faculty member may be appointed to serve on the committee.

The oral portion of the exam may not be attempted until the written component is completed and must be attempted within two academic weeks of the written component. Students are expected to take the qualifying exam during the summer sessions between their fourth and fifth academic semesters. However, the written component must be completed no later than the second week in July. Students are not eligible to begin their dissertation or enroll in dissertation hours until they have successfully completed the Qualifying Examination.

RESEARCH

Students will participate in research rotations during their first year, meeting and working with research faculty with similar interests in order to develop mentorships for dissertation research. A total of fifty-three credit hours of rotations and dissertation research will be completed during the program.

THE DISSERTATION PROPOSAL, DEFENSE, AND APPROVAL

Although students may choose to pursue a traditional dissertation format, the majority of Ph.D. students format their dissertation using the Three Journal Article Format (JAF). The decision of which format to use is something that students should discuss with chairperson of their dissertation committee. As a reminder, students will not be allowed to defend their dissertations until they have at least one first-authored publication in any form of acceptance, based on their Ph.D. dissertation, in a peer-reviewed journal by the time of the dissertation defense. Note: This required publication does not necessarily need to be one of the three articles generated through the JAF dissertation format.

SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
C&I 789	3	BIOS 603	3	SBHS 797	4
BIOS 601	3	SBHS 611	3	BMS 720	2
BIOS 602	1	SBHS 760	3		
SBHS 610	3	SBHS 797	2		
SBHS 601	3	EPID 601	3		
SBHS 797	1				
BMS 700	1				
	15		**14**		**6**

Second Year

Fall	Hours	Spring	Hours	Summer	Hours
SBHS 715	3	SBHS 763 or 761	3	SBHS 797	6
PUBH 796	1	SBHS 701	3		
BIOS 604	3	SBHS 797	3		
SBHS 613	3	Elective	3		
SBHS 711 (or Elective)	3	Qualifying Exam			
	13		**12**		**6**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
SBHS 796	1	SBHS 797	3	SBHS 797	6
SBHS 797	6	SBHS 763 or 761	3		
SBHS 711 (or Elective)	3	Elective	3		
	10		**9**		**6**

Fourth Year

Fall	Hours	Spring	Hours	Summer	Hours
SBHS 796	1	SBHS 797	10	SBHS 797	6
SBHS 797	9	Dissertation Defense			
	10		**10**		**6**

Total credit hours: 117

WORK-SITE WELLNESS AREA OF EMPHASIS

Students will complete a 12-credit hour course sequence designed to impart the work-site wellness skills, knowledge, and competencies.

Competencies include:

- Design needs and resource assessments relative to the implementation of a work-site wellness program
- Create and evaluate work-site wellness interventions
- Discern the individual, organizational, structural, and societal factors that contribute to health and safety in the workplace
- Derive the value of public health and wellness programs and policies to justify investment by business organizations

AREA OF EMPHASIS REQUIREMENTS

PUBH 536	Worksite Wellness	3
HPML 680	Performance and Economic Evaluation for Public Health	3
OEHS 623	Occupational Injury Prevention	3
SBHS 633	Women and Violence	3
Total Hours		**12**

WORKSITE WELLNESS AREA OF EMPHASIS SUGGESTED PLAN OF STUDY

First Year

Fall	Hours	Spring	Hours	Summer	Hours
EPID 601	3	OEHS 601	3	PUBH 622	3
BIOS 601	3	HPML 601	3		
BIOS 602	1	PUBH 696	1		
SBHS 601	3	SBHS 611 or 660	3		
SBHS 610	3				
PUBH 696	1				
	14		**10**		**3**

Second Year

Fall	Hours	Spring	Hours
SBHS 613	3	HPML 680	3
SBHS 615 or 614	3	SBHS 633	3
OEHS 623	3	SBHS 629	2
PUBH 536	3		
	12		**8**

Total credit hours: 47

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