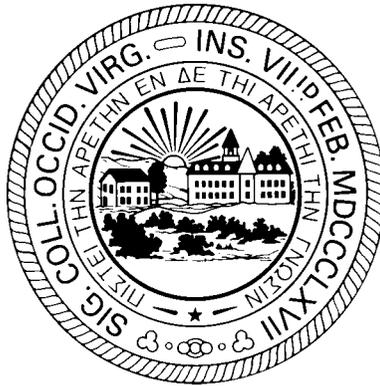


West Virginia University Robert C. Byrd Health Sciences Center Catalog 2001-2002

**School of Dentistry
School of Medicine
School of Nursing
School of Pharmacy**



West Virginia University is a land-grant, research institution founded in 1867. WVU is a student-centered learning community meeting the changing needs of West Virginia and the nation through teaching, research, service, and technology.

The *West Virginia University Robert C. Byrd Health Sciences Center Catalog 2001-2002* is a general source of information about course offerings, academic programs and requirements, expenses, rules, and policies. In order to reach the goals and fulfill the mission of the University, the courses, requirements, and regulations contained herein are subject to continuing review and change by the West Virginia Higher Education Policy Commission, the WVU Board of Governors, University administrators, and the faculties of the schools and colleges. The University, therefore, reserves the right to change, delete, supplement, or otherwise amend the information, course offerings, requirements, rules, and policies contained herein without prior notice. The indicia depicted are registered trademarks of West Virginia University. Copyright © West Virginia University, 2001.

West Virginia University Calendar

2001-2002*

Fall Semester 2001

Wednesday, Thursday, Friday, August 15, 16, 17	New Student Orientation
Friday, August 17	General Registration
Monday, August 20	First Day of Classes
Monday, August 20	Late Registration Begins
Friday, August 24	Last Day to Register and Make Changes
Monday, September 3	RECESS—Labor Day
Tuesday, September 18	Day of Special Concern (Rosh Hashannah)
Thursday, September 27	Day of Special Concern (Yom Kippur)
Friday, October 5	Mid-Semester
Tuesday, October 9	Mid-Semester Reports Due
Friday, October 26	Last Day to Drop a Class
Saturday, November 17, through November 25	RECESS—Thanksgiving
Thursday, December 6	Last Day to Withdraw
Friday, December 7	Last Day of Classes
Friday, December 7	December Convocation
Monday, December 10, through Saturday, December 15	Final Exams

Spring Semester 2002

Wednesday, Thursday, Friday, January 9, 10, 11	New Student Orientation
Friday, January 11	General Registration
Monday, January 14	First Day of Classes
Monday, January 14	Late Registration Begins
Friday, January 18	Last Day to Register and Make Changes
Monday, January 21	RECESS—Martin Luther King Day
Thursday, February 7	West Virginia University Day
Friday, March 1	Mid-Semester
Tuesday, March 5	Mid-Semester Reports Due
Friday, March 22	Last Day to Drop a Class
Saturday, March 23, through Sunday, March 31	RECESS—Spring Break
Thursday, March 28	Day of Special Concern (Passover)
Friday, March 29	Day of Special Concern (Easter)
Thursday, May 2	Last Day to Withdraw
Friday, May 3	Last Day of Classes
Monday, May 6, through Saturday May 11	Final Exams
Monday, May 13	Grade Reports for Graduates Due in Deans' Offices
Tuesday, May 14	RECESS—Election Day
Wednesday, May 15	Deans' Reports on Graduates Due in ARC
Saturday, May 18	Alumni Day
Sunday, May 19	Commencement

Summer Session I 2002

Tuesday, May 21	Registration
Tuesday, May 21	First Day of Classes
Wednesday, May 22	Late Registration Begins
Friday, May 24	Last Day to Add Courses or Make Changes
Friday, May 24	Last Day to Register or Make Changes
Monday, May 27	RECESS—Memorial Day
Friday, June 14	Last Day to Drop
Thursday, June 27	Last Day to Withdraw
Friday, June 28	Final Exams
Friday, June 28	Last Day of Classes

Summer Session II 2002

Monday, July 1	Registration
Monday, July 1	First Day of Classes
Tuesday, July 2	Last Registration Begins
Thursday, July 4	RECESS—Independence Day
Friday, July 5	Last Day to Add Courses and Make Changes
Friday, July 5	Last Day to Add or Make Changes
Friday, July 26	Last Day to Drop
Wednesday, August 7	Last Day to Withdraw
Thursday, August 8	Last Day of Classes
Thursday, August 8	Final Exams
Saturday, August 17	Degree Conferring Date (No Ceremonies)

*See www.wvu.edu/~calendar/index.htm for the 2002-2003 calendar.

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West Virginia Higher Education Governance*

Robert E. Wise Jr., *Governor of West Virginia*

West Virginia Higher Education Policy Commission

John R. Hoblitzell, *Charleston, Chair*
Shawn R. Williams, *Clarksburg, Vice Chair*
J. Thomas Jones, *Huntington, Secretary*
Edith C. Altmeyer, *Wheeling*
Elliot G. Hicks, *Charleston*
Richard J. Shearer, *Berkeley Springs*
Ron D. Stollings, *Madison*

Kathleen H. Goodwin, *Ripley, Secretary of Education and the Arts*
J. Michael Mullen, *Charleston, Chancellor of Higher Education*
David L. Stewart, *Charleston, Superintendent of Schools*

West Virginia University Board of Governors

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Curtis H. Barnett, *Bethlehem, Pa., Vice Chair*
Cathy M. Armstrong, *Wheeling, Secretary*
Samuel A. Chico III, *Morgantown*
Elizabeth E. Chilton, *Charleston*
Paul E. Gates, *Wayne, N.J.*
Terry T. Jones, *Morgantown*
Douglas J. Leech, *Morgantown*
T. Joseph Lopez, *Annandale, Va.*
Thomas E. Potter, *Charleston*
Rodney K. Thorn, *New York, N.Y.*
Sandra M. Weese, *Middlebourne*
Robert K. Griffith, *Morgantown, Faculty Representative*
M. Margaret Lopez, *Morgantown, Classified Staff Representative*
David J. Workman, *Madison, Student Representative*

*As of February 15, 2001.

West Virginia University is governed by the West Virginia Higher Education Policy Commission and the WVU Board of Governors.

West Virginia University is a member of the North Central Association of Colleges and Schools. The University's educational programs are accredited by the North Central Association and by the appropriate accreditation agencies for professional programs.

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*

President's Cabinet

President David C. Hardesty Jr.

Provost and Vice President for Academic Affairs and Research Gerald E. Lang

Chief of Staff and Vice President for Institutional Advancement David C. Satterfield

Vice President, Administration, Finance, and Human Resources Scott C. Kelley

Vice President, Health Sciences, and Dean, School of Medicine Robert M. D'Alessandri

Vice President, Student Affairs Kenneth D. Gray

Executive Officer and General Counsel Jon A. Reed

Executive Officer for Social Justice Jennifer A. McIntosh

Executive Officer for University Communications Carolyn A. Curry

Associate Provost for Curriculum and Instruction Russell K. Dean

Associate Provost for Extension and Public Service Lawrence S. Cote

Associate Provost for Academic Personnel C. B. Wilson

Associate Provost for Information Technology Kenneth R. Orgill

Associate Provost for Research John D. Weete

Associate Provost for Academic Programs Rosemary Haggett

Associate Vice President for Finance Terry R. Ondreyka

Associate Vice President and Dean of Student Affairs Herman L. Moses

CEO, Blanchette Rockefeller Neurosciences Institute, and Senior Associate Vice

President for Health Sciences Fred R. Butcher

Associate Vice President of Finance, Health Sciences James K. Hackett

Associate Vice President for Health Sciences W. Robert Biddington

Associate Vice President for Rural Health Hilda R. Heady

Associate Vice President for Health Sciences, Charleston Division Michael J. Lewis

Regional Vice President and President of WVU Potomac State College Mary Rittling

Regional Vice President and President of WVU Institute of Technology Karen R. LaRoe

Regional Vice President and President of WVU at Parkersburg Erik Bitterbaum

President, West Virginia University Foundation F. Duke Perry

Executive Vice President, West Virginia University Alumni Association Stephen L. Douglas

President, West Virginia University Hospitals Inc. Bruce McClymonds

President, West Virginia University Staff Council Terry Nebel

President, West Virginia University Student Administration David Workman

Deans' Representative Duane Nellis

Chair, Faculty Senate Robert Griffith

Special Assistant to the President and Provost Virginia J. Petersen

Executive Assistant to the President Sara Master

*As of February 15, 2001.

WVU Health Sciences Administration*

David C. Hardesty Jr., *President of West Virginia University*
Robert M. D'Alessandri, M.D., *Vice President for Health Sciences*
Fred R. Butcher, Ph.D., *Senior Associate Vice President*
W. Robert Biddington, D.D.S., *Associate Vice President for Health Sciences*
James K. Hackett, M.B.A., *Associate Vice President for Finance and Administration*
Hilda Heady, M.S.W., *Associate Vice President for Rural Health*
Virginia Hunt, M.S., *Vice President for Strategic Planning and Marketing*
Michael J. Lewis, M.D., *Associate Vice President for Health Sciences/Charleston*
Robert H. Hornbrook, D.D.S., M.S.D., *Dean, School of Dentistry*
Robert M. D'Alessandri, M.D., *Dean, School of Medicine*
E. Jane Martin, Ph.D., *Dean, School of Nursing*
Lynda Nine, *Vice President Alumni Affairs*
George R. Spratto, Ph.D., *Dean, School of Pharmacy*
Julia Phalunas, Ed.D., *Vice President for Health Sciences Center Development*
Bruce McClymonds, B.A., *President, West Virginia University Hospitals*
Phil Goodwin, *President, Charleston Area Medical Center*
Bernard G. Westfall, M.B.A., *President, West Virginia United Health System*

*As of February 15, 2001.

West Virginia University Robert C. Byrd Health Sciences Center

West Virginia University's Schools of Dentistry, Medicine, Nursing, and Pharmacy at the Health Sciences Center offer a comprehensive range of undergraduate, graduate, and professional degrees in health care and biosciences. The 28 degree programs offered by the Health Sciences Center provide West Virginia with a strong group of professionals prepared to meet the varied health care needs of the state. The more than 10,000 alumni of WVU Health Sciences Center programs include about one-third of the state's practicing physicians, two-thirds of its dentists, three-quarters of its pharmacists, and hundreds of nurses, medical and dental technologists, physical therapists, and other health professionals.

A unique combination of state and federal support, charitable contributions from individuals and foundations, and investments by private corporations has allowed the Health Sciences Center to build an unequalled environment for health education. The Health Sciences Center includes three hospitals, a cancer center, an eye institute, and a medical and dental office building. All were built since 1986 and were designed to meet the needs of patient care, education, and clinical research. The WVU Health Sciences Center also includes medical divisions in Charleston and Wheeling and relationships with hospitals and physicians in rural areas of the state. These facilities offer students the opportunity to learn their profession in a setting that realistically reflects the conditions they will encounter after graduation.

Clinical Education Facilities

The West Virginia University Health Sciences Center includes a diverse group of health-care facilities, providing a training ground for patient care and research for students in the health professions. West Virginia University Hospitals, the Physician Office Center, the Mary Babb Randolph Cancer Center, Chestnut Ridge Psychiatric Hospital, Southview Regional Rehabilitation Hospital, the Eye Institute, and the National Institute of Occupational Safety and Health (NIOSH) are modern facilities that advance medical research and accommodate the demands of contemporary medical, dental, nursing, and pharmacy care.

WVU Hospitals entered a new era in 1988 with the opening of a 376-bed tertiary teaching facility (Ruby Memorial), the primary teaching hospital for the Health Sciences Center. It is equipped and staffed to provide the most comprehensive and advanced care available in West Virginia, thus making it a superb clinical education site for students. Ruby also houses the Jon Michael Moore Trauma Center and WVU Children's Hospital with their specialized care units.

The Physician Office Center, the Health Sciences Center's outpatient facility for education and patient care, accommodates the largest multi-specialty group practice in West Virginia, with 60 primary and specialty care areas. Dental facilities, the eye center, and the outpatient pharmacy are integral parts of the Physician Office Center.

Chestnut Ridge Hospital is a 70-bed psychiatric hospital on the Health Sciences Center campus. It is staffed clinically by faculty from the School of Medicine and is the focal point of education in the behavioral and psychiatric sciences.

Southview Regional Rehabilitation Hospital provides unique educational opportunities for students in neurological disease, trauma rehabilitation, and physical and occupational therapy. Many WVU students experience part of their clinical training at the Charleston Division of the Health Sciences Center, which is affiliated with Charleston Area Medical Center. In addition, WVU students train at off-campus sites where they learn the demands of rural health care firsthand.

The School of Dentistry dental clinic accepts patients who have dental problems of teaching value. Faculty members closely supervise those students assigned to clinic patients. The students get invaluable experience through work at the clinic, and several thousand patients receive a much needed service.

Health Sciences Library

The Health Sciences Library has a collection of more than 205,000 volumes and extensive holdings of audiovisual materials. It currently receives more than 2,400 journals. The library primarily serves the Schools of Dentistry, Medicine, Nursing, and Pharmacy, graduate students in the basic sciences, and the West Virginia University Hospital System. It also supports the biomedical information needs of the University and of health professionals across the state. As West Virginia's resource library in the National Library of Medicine's regional medical library network, the Health Sciences Library operates an efficient interlibrary loan service for University staff and students and for West Virginia's hospitals and clinicians. Other services include on-line searches of databases available through the National Library of Medicine, Bibliographical Retrieval Services, Chemical Abstracts Services, OCLC, and Wilsonline. Also available are computer facilities permitting students, faculty, and staff to perform their own computer searches. A computerized West Virginia union list of periodicals is maintained, and installation of an integrated library system should soon be underway. The library is open 98 hours a week for most of the year; regular hours and variations are posted at the entrance.

University Health Service

When you enroll at the University, one of the charges you pay is the health service fee. This fee allows you to use the primary medical care provided by the University Health Service. The service, located on the ground floor of Health Sciences South, includes medical consultation and treatment. To use the service, you must present your current student ID and pay a co-payment.

If you require more specialized care, the Health Service may refer you to an outpatient clinic at the Physician Office Center. In this case, you are responsible for registration fees, doctor's fees, x-ray or lab fees, etc. The University Health Service publishes a brochure that details the services included in the health service fee and outlines services that are not provided.

The emergency department is available to you when the University Health Service is closed. However, all costs incurred at the emergency department are your responsibility. Since most insurance policies cover emergency department costs only when a true emergency exists, we advise you to use this service responsibly and maturely. An insurance plan is available to you to cover inpatient and outpatient services beyond the primary care covered by the health fee. We urge you to purchase this or a similar coverage as all students of the Health Sciences Center *must* have health insurance.

Commitment to Social Justice

West Virginia University's role as the doctoral degree-granting, research, land-grant university in the state of West Virginia gives the institution a special responsibility as a leader in the area of social justice. The pursuit of truth underlying the University's mission focuses attention on issues of diversity, power, and perspective, so that students, faculty, and staff may study and work in a climate of academic freedom and social responsibility, developing the skills, knowledge, and self-esteem necessary for participation as world citizens.

Equal opportunity is a fundamental goal in a democratic society, and WVU shares the responsibility for achieving that equity. The institution is committed, therefore, to ensuring that all persons, including women; people of color; persons with disabilities; gays, lesbians, and bisexuals; veterans; and persons of different religions, sexual orientation, ages, and international, ethnic, and economic backgrounds benefit from the many opportunities the institution provides.

In keeping with this responsibility, the 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.

The importance of WVU's social justice program goes beyond the benefits that accrue to any one person or group, to the strengthening of the University itself and the enhancing of its ability to accomplish the mission with which it has been entrusted by the people and the State of West Virginia.

Health Sciences Degree Programs

Degree Program	Bachelor's	Master's	Doctoral/ Professional
School of Dentistry			
Dental Hygiene	B.S.	M.S.	
Dentistry			D.D.S.
Dental Specialties		M.S.	
School of Medicine			
Anatomy		M.S.	Ph.D.
Biochemistry (Medical)		M.S.	Ph.D.
Community Health Promotion		M.S.	
Exercise Physiology	B.S.	M.S.	
Medical Technology	B.S.	M.S.	
Medicine			M.D.
Microbiology and Immunology		M.S.	Ph.D.
Occupational Therapy		M.O.T.	
Pharmacology and Toxicology		M.S.	Ph.D.
Physical Therapy		M.P.T.	
Physiology (Medical)		M.S.	Ph.D.
Public Health		M.P.H.	
School of Nursing			
Nursing	B.S.N.	M.S.N.	
School of Pharmacy			
Pharmaceutical Sciences		M.S.	Ph.D.
Pharmacy			Pharm.D.

Undergraduate and Professional Programs

Admission

To apply for admission to the various schools of the Health Sciences Center, write to Admissions and Records, 1170 Health Sciences North, P.O. Box 9815, Morgantown, WV 26506-9815, and ask for the appropriate application forms.

Space at the HSC is limited, and our applications are numerous. Therefore, we give preference in the admissions process to qualified residents of West Virginia. However, we always consider outstanding nonresident applications. We give most careful consideration to those personal qualifications that reflect your fitness for the study and practice of your chosen profession.

Because we are primarily a group of professional schools and most of our applicants are enrolled in undergraduate studies at a residential college or university, we remind you to include your permanent home address with your request for an application form.

Specific entrance requirements for all Health Sciences programs are detailed in the section pertaining to each program. For information about freshman, transfer, and international admission to West Virginia University, please refer to the *WVU Undergraduate Catalog*.

During the first semester of your first year at WVU Health Sciences Center, we require that you complete certain prescribed immunization and diagnostic procedures.

Application Fees

Application fees for the Schools of Dentistry and Medicine are \$45. The Pharm.D. application fee is \$30. Application fees for all other Health Sciences Center programs are \$10. Application fees must accompany your application form.

When you are accepted into one of our programs you are asked to deposit \$100 to make your acceptance official. These deposits are applied toward your first semester tuition when you enroll.

If you pay your deposit but do not enroll, a written request for refund must be postmarked by June 1 for fall admission and December 1 for spring admission.

Academic Advising

When you enter West Virginia University, you are assigned an academic advisor. Your advisor assists you as you prepare your schedule, assigns classes as required by your degree program, and certifies your study list to the director of Admissions and Records. Your advisor is also expected to give you advice and sympathetic guidance. You are expected to meet with your advisor to discuss your academic problems.

Students interested in medical technology, nursing, pharmacy, physical therapy, or occupational therapy may be admitted to a preprogram in order to complete entrance requirements for admission to the degree program. If you select one of these pre-programs, you are advised through the University Services Center. You must apply for admission with an undergraduate application.

Second or Multiple Bachelor's Degree

To earn a second baccalaureate degree, you must earn at least 30 credits beyond the requirements for your first degree. You must satisfy all requirements, departmental or otherwise, for the second degree. You cannot receive a second bachelor's degree if you have not met the University's residence requirement. (See "Residence Requirements.")

If you wish to earn two baccalaureate degrees at the same graduation date, then you must satisfactorily complete a minimum of 158 credits and meet all requirements, departmental and otherwise, of both degree programs. You must be admitted to both programs. Furthermore, you must provide the Office of Admissions and Records written proof that you have the approval of both colleges or schools.

Undergraduate Policies

Academic Forgiveness Policy

WVU allows an academic forgiveness to some students who are not successful in their first attempt at higher education.

To be eligible, a student cannot have been enrolled at a West Virginia state system of higher education institution for at least five calendar years and cannot have been enrolled in any other institution of higher learning during those five years. In order to determine your eligibility, you must complete the Academic Forgiveness Form which is available at the Office of Admissions and Records.

The conditions and rules of the academic forgiveness policy are as follows:

- Admission to WVU under the academic forgiveness policy is conditional upon satisfying the above stated non-enrollment period. In addition, a recommendation that the student be admitted under the academic forgiveness policy must be submitted by the dean of the college or school that the student plans to enter, and the recommendation must be approved by the Office of the Vice President for Academic Affairs.
- Upon admission to WVU under this policy, the student will be credited with the hours earned for courses completed with a grade of D or higher.
- Grades earned during any prior enrollment period will not be counted for purposes of calculating the student's grade-point average, but grades earned will remain on the student's permanent record.
- The student must meet and complete all coursework required to meet the college's or school's requirements for graduation, but under no circumstances after the student has been admitted under the academic forgiveness policy shall the student complete fewer than 64 credit hours prior to earning a degree.
- A student admitted to WVU under this policy will follow all regulations regarding probation, suspension, and expulsion.

Baccalaureate Degrees

Student Responsibility

As a student, you are responsible for your academic well-being. Specifically, you are responsible for knowing your scholastic standing as it relates to the published regulations and standards of WVU. This responsibility includes the regulations of your college or school and the regulations of the department or division in which you are earning a degree. In order to graduate, you must go to your academic dean's office and complete an application for graduation and diploma. File your application during the first month of the semester or summer session in which you expect to graduate.

Regulations Affecting Degrees

All degrees are conferred by the West Virginia University Board of Governors as recommended by the faculties of the various colleges and schools. A degree is granted at the end of the semester or summer session in which you complete the requirements for that degree, provided that you have submitted an application for graduation and diploma at your academic dean's office.

You become eligible to graduate when you complete the requirements of the University and your college or school that were in effect at the time you first registered at that college or school. You have seven years after your first registration to complete the requirements. If you do not, you will have to meet the requirements of a later catalog—one that is no more than seven years old when you complete your studies. With the consent of your advisor and your dean, you may choose to meet the conditions published in a later catalog.

Students must observe any program changes that are enacted by the West Virginia University Board of Governors, the West Virginia Higher Education Policy Commission, or by local, state, or federal law.

WVU policy dictates that, in view of their professional responsibilities to the general public, the faculty of a professional school may recommend to the president of the University, in writing, that a student be removed from its rolls. The recommendation of the faculty must indicate that the student is not fit to meet the qualifications and responsibilities of the profession.

WVU will not confer a degree or issue a transcript to any student until payment of all tuition, fees, and other indebtedness to any unit of the University is made.

Credits Required

Each degree program is based upon a combination of required courses and electives. Certain University requirements are listed below. In addition, the various colleges and schools determine their own credit requirements and course grade averages for graduation. Total credits vary from 128 to 145. Required grade-point averages range from 2.0 to 2.5. The determination to count ROTC courses as free electives or toward fulfillment of Liberal Studies Program requirements is the prerogative of the dean of the college awarding the degree.

No more than three credit hours of ROTC may count toward fulfillment of the LSP requirement in each cluster area.

Liberal Studies Program (LSP)

WVU recognizes the need for students to have a wide range of knowledge and experience to complement their chosen field of study. The LSP serves this purpose and is based on the following two principles.

1. In our world of rapid economic, social, and technological change, universities recognize that a broad educational foundation is necessary for the life-long learning that makes meaningful careers and other goals attainable. WVU's approach to this foundation is its Liberal Studies Program, which provides graduates with the skills and knowledge to continue their intellectual growth as a lifelong process. These skills and knowledge include the ability to:
 - Reason clearly.
 - Communicate effectively.
 - Understand major influences in society.

2. General education helps students to become thoughtful participants in a democratic society and to achieve the intellectual integration and awareness they need to meet changes and challenges in their personal, social, political, and professional lives. General education courses introduce the great ideas and controversies in human thought and experience. These courses provide breadth, perspective, and rigor that enable WVU graduates to:
- Understand the past and its traditions.
 - Identify and resolve issues of personal and professional ethics.
 - Contribute in meaningful ways to their local, national, and global communities.
 - Understand alternative viewpoints and cultures.
 - Accept the assume responsibility for themselves and their world.
 - Interact constructively with people different from themselves.
 - Understand important issues confronting society.
 - Gain a critical understanding of the arts, sciences, and humanities.
 - Understand an increasingly interdependent world.
 - Use quantitative and scientific knowledge and technology accurately.

Program Components

West Virginia University Liberal Studies Program requirements for all students who receive the baccalaureate degree are divided into a skills component and a distribution component. These are described below.

Skills Requirements

Writing

- All students must successfully complete English 101 and 102. This requirement is in addition to the Cluster A requirements described below.
- All students must successfully complete at least one course that requires a substantial writing component and in which the grade is partially determined by writing skills. These courses will be identified in the LSP portion of the *Schedule of Courses* by a “W”. The student must complete English 102 before fulfilling the “W” requirement.

Mathematics

- All students must successfully complete at least three hours of mathematics or statistics. This requirement is in addition to the Cluster C requirement that is described below. Courses approved for the mathematics skills requirement: Mathematics 121, 124, 126, 129, 150, 155, 156, 180, 218, 231, Economics 225, and Statistics 211.

Cluster Courses

The University courses in the LSP that provide students with broad liberal knowledge and experience are grouped into three clusters:

Cluster A (Humanities and Fine Arts): The study of humanities develops knowledge of and appreciation for the accumulated wisdom and experience contained in world literature, history, fine arts, religion, and philosophy, with the objective of bringing the student to an active consciousness of the living, operating, and continuing values of human culture.

Cluster B (Social and Behavioral Sciences): The social and behavioral sciences develop in students the knowledge and appreciation of both themselves and the world in which they live. Through the study of anthropology, economics, geography, linguistics, political science, psychology, sociology, and communication studies, students are able to comprehend major concepts, evaluate movements and ideas, and anticipate future trends in societies both at home and abroad.

Cluster C (Natural Sciences and Mathematics): Courses in the natural sciences and mathematics provide information about the natural world and provide a perspective on how an understanding of the natural world is developed. Educated persons should have a knowledge of the physical, chemical, geological, and biological entities and processes that constitute the natural world. Courses in mathematics, statistics, and computer science can provide the technical tools for an understanding of the natural world, as well as an understanding of the methods and value of mathematics considered as a discipline in itself.

Distribution of Cluster Requirements

Cluster A Requirements 12 hours of Cluster A courses must be distributed according to the following provisions and successfully completed:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- If foreign language courses are chosen to fulfill Cluster A requirements, no student may use more than one first-semester course of an elementary foreign language. Language courses in a student's native language may not be used to fulfill Cluster A requirements.
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster A requirements.

Cluster B Requirements 12 hours of Cluster B courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster B requirements.

Cluster C Requirements 11-12 hours of Cluster C courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in two disciplines.
- At least one course must include a laboratory (identified in the *Schedule of Courses*).
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster C requirements.

Note: Foreign or minority culture requirement: one three-credit-hour course must focus substantially on the study of a foreign or minority culture or cultures or on women and/or issues of gender.

Inventory of LSP Courses

The courses listed below in Clusters A, B, and C do not constitute an inclusive listing. The Liberal Studies Committee changes the list of courses as evaluations are continually made. Students and advisors should consult the latest *Schedule of Courses* for the most recent inventory of courses included in the Liberal Studies Program. Any course listed at any time during the student's period of study may be counted for Liberal Studies Program credit.

Cluster A Courses

Arabic 101, 102, 203, 204

Art 101, 105, 106

Chinese 101 102, 203, 204

Classics 101, 102, 203, 204, 231, 232

English 131, 132, 139*, 154*, 225, 231, 232, 233, 234, 235, 236, 241, 242, 251, 254*, 257, 258, 261, 262, 263, 272, 273, 285*

Foreign Literature in Translation 113*, 114*, 115*, 116*, 117*, 118*, 125, 205*, 206*, 211*, 212*, 225*, 226*, 231*, 232*, 241*, 242*, 251*, 252*, 261*, 262*, 266*, 271*, 273*, 274*

French 100, 101, 102, 200, 203, 204

German 100, 101, 102, 200, 203, 204

History 101, 102, 105*, 106*, 152, 153, 180, 201, 203, 205, 207, 209, 217*, 218*, 221*, 255, 256, 257, 259, 261, 264, 271, 272, 277, 281, 284

Humanities 101, 102, 103, 104, 105*, 110, 111, 120*

Italian 101, 102, 203, 204

Japanese 101, 102, 203, 204

Landscape Architecture 212

Linguistics 103

Mathematics 280 (Equivalent to Philosophy 360)

Multidisciplinary Studies 128, 220*, 230

Music 170, 173, 174, 175*, 176*, 270, 271
 Native American Studies 200*
 Philosophy 100, 130, 140, 170, 210, 244, 248, 260, 282
 Portuguese 101, 102, 203, 204
 Religious Studies 105, 200, 201, 202, 203, 205, 210, 211, 212, 220, 221, 228,
 230*, 231*, 232*, 241*, 242, 250
 Russian 101, 102, 203, 204
 Spanish 100, 101, 102, 200, 203, 204
 Speech Pathology and Audiology 270
 Theatre 101, 102, 103
 Women's Studies 170*

Cluster B Courses

Agricultural/Environmental Education 220
 Agriculture Resource Economics 150, 187, 220
 Child Development and Family Studies 110
 Communication Studies 100, 102, 104, 105, 212*
 Economics 111, 201, 202
 Forestry 140
 Geography 102*, 108, 205, 209, 210, 240, 241, 243*
 History 104*, 108*, 241*, 242*, 264, 281
 Journalism 101
 Linguistics 101
 Multidisciplinary Studies 120, 122*, 124, 126, 129, 212, *220
 Native American Studies 200*
 Political Science 101, 102, 103, 107, 210, 220, 250*, 260, 270, 271
 Psychology 101, 241, 251, 232*
 Recreation, Parks, and Tourism Resources 143
 Social Work 105, 147*
 Sociology and Anthropology 101, 105*, 107, 221, 222, 223, 232, 235*, 238*, 240,
 252, 255*, 256*, 257, 258
 Sport Studies 272
 Women's Studies 170*, 245*

Cluster C Courses

Astronomy 106
 Biology 101, 102, 3†, 4†, 5
 Chemistry 111†, 112†, 115†, 116†, 117†, 118†
 Computer Science 101
 Economics 225
 Environmental Microbiology 241
 Environmental Protection 155
 Geography 107, 110, 111†, 207
 Geology 101, 102†, 103, 104†, 110, 111†, 203, 230†
 History 272, 284
 Human Nutrition and Foods 171
 Mathematics 121, 124, 126, 128, 129, 150, 155, 156, 180, 218, 231
 Multidisciplinary Studies 120, 122*, 124, 126, 128
 Philosophy 261
 Physics 101†, 102†, 105†, 107, 108, 111†
 Statistics 211
 Wildlife Management 150

*Satisfies the foreign culture, minority, or gender studies requirement.

†Satisfies the laboratory course requirement.

Approved 300-Level Courses

No 300-level courses are included in Clusters A, B, and C because they are deemed to be not ordinarily appropriate for the Liberal Studies Program. However, a student may petition to take one 300-level course from the list of approved courses indicated below in fulfillment of the LSP requirement for each of the three cluster areas. The student must petition through his or her advisor for approval.

Cluster A Courses

Communication Studies 305

English 321, 342, 343, 346, 351, 361, 362, 363, 364, 365, 366, 367, 368, 369, 371, 387*

Multidisciplinary Studies 301

Philosophy 301, 302, 306, 308, 310, 312, 321, 323, 325, 331, 346, 350*, 351, 352, 353, 355, 360

Cluster B Courses

Communication Studies 306, 308, 316*, 317

Community Health Promotion 390*

Economics 301

Multidisciplinary Studies 301

Political Science 335*, 337*, 350*, 351*, 353*, 354*, 355*, 356*, 358*, 366*, 367*, 369*

Sociology and Anthropology 325, 336, 337, 359, 360*, 362

Sport Studies 373*

*Satisfies the foreign culture, minority, or gender studies requirement.

Residence Requirements

If you decide to transfer to WVU from another institution of higher learning, then you should transfer no later than the start of your third year. Under no circumstances will a student who enters WVU after October 1 in any year be allowed to receive a degree at the next commencement.

In some special cases, you can leave WVU at the end of your third year, and still receive your degree from WVU. You must enter another accredited institution with the purpose of taking a combined program that will lead to two degrees or prepare for graduate study. Before you leave, you must apply to the Academic Standards Committee of your college to request permission to do the work of the fourth year, or a part thereof, at the other institution but still receive the degree from WVU. You will receive your degree when you present the proper records from the other school.

If you are a transfer student who has completed all of your undergraduate work in another school in the West Virginia system of higher education, then you must complete either your last 30 hours of work at WVU or at least 36 hours of work at WVU of which 16 of the last 32 hours must be on campus. If you are a transfer student whose undergraduate work has been completed outside the West Virginia system of higher education, then you must complete a total of 90 hours or at least the last 30 hours of work in residence at WVU. You may be required to earn up to 15 hours in your major field regardless of the number of hours or the nature of the courses transferred.

Work Done Out of Residence

WVU's policy is to discourage taking regular residence courses in absentia. If you begin a course at WVU but fail to complete it due to illness or some other acceptable reason, you may receive permission to complete the work in absentia. Permission must be granted by the Academic Standards Committee of the college or school concerned, and the work must be done under the guidance of a WVU professor. Credit in such cases is allowed only upon a report of a grade of C or better on the final examination. This regulation does not apply to WVU off-campus courses.

If you fail a course (receive a final grade of F) taken at WVU, you must repeat the course at WVU to receive credit for that course. The dean of the college or school in which you are enrolled may authorize an exception to this regulation. If so, then the dean should provide a letter to be placed in your folder authorizing the exception and explaining its basis.

You should be aware of the requirements for residence and your specific degree requirements described in the catalog when transferring credit from other institutions. If you are transferring credit from institutions outside the West Virginia state system of higher education, WVU will accept credit only for courses in which you earned a grade of D⁺ or higher provided other conditions above have been met. Under no circumstances will grades be transferred from institutions outside the state system.

***Note:** D grades are accepted only for students entering at the WVU Morgantown campus for the first time during or after Fall 1997. Students entering before Fall 1997 may only transfer grades of C or higher.

WVU Transient Students

If you decide to take a course or courses at another school, you must have written approval from your advisor, your dean, and the director of Admissions and Records or designee. To receive such approval, you must have an overall 2.0 average. All approved college-level work is accepted for transfer from accredited institutions, provided the above requirements have been met and you have an overall GPA of 2.0.

Advanced Placement Program (AP)

West Virginia University encourages you to work to your full capacity and to earn your degree at your own learning speed. As a high school junior or senior, you can take college-level courses at your school in conjunction with the College Entrance Examination Board (CEEB). The Advanced Placement Service administers three-hour examinations to show competency equal to that received by taking the actual college course. The chart on page 18 shows the subject areas, the necessary test scores, and the WVU equivalent courses.

College Level Examination Program (CLEP)

If you apply for admission to WVU and you have gained a significant level of maturity through your life experiences, you may gain college credit for these educationally related experiences through the College Level Examination Program (CLEP) of the CEEB. A policy of the WVU Board of Governors allows University credit to be awarded for successful completion of CLEP subject examinations, except English composition and freshman English. Up to 34 hours of general education credit may be earned for successful performance on the CLEP general examinations. Although this program was designed primarily for adults, exceptionally well-qualified high school seniors may use the CLEP program. The table on page 19 indicates the areas in which WVU grants credit based on the minimum score required. It should be noted that no student is eligible for CLEP credits after he or she has enrolled at WVU.

A veteran may receive advanced placement for specific military experience and should contact the Transfer Unit of Admissions and Records for specific information.

Credit by Examination

If you are currently enrolled, you may receive credit for a course or courses if you can demonstrate competency in the course content. The department offering the course determines evaluation standards for the student's competency. If skill and cognitive abilities are components of the course, then both are evaluated. Credit is given only when a satisfactory degree of competency is shown.

A college, school, or department may ask you to prepare a self-evaluation statement. The purpose of the statement is to determine the competency you believe you have and the methods by which you achieved it. If you are interested in credit by examination, contact the dean in the college or school offering the course.

Credit for Correspondence Work

You may receive credit for correspondence work in non-laboratory courses. You have to meet certain conditions that govern this credit:

- A maximum of 30 hours is acceptable.
- The work must be from accredited institutions.
- The institution must accept the credit toward its own degrees.
- WVU must ordinarily accept that institution's residence work.

500-Level Courses

Off-campus If you are an advanced student and wish to take an off-campus course numbered 400-599, you must submit an undergraduate application for admission and have your official transcripts sent to the Office of Admissions and Records from all of the colleges and universities that you previously attended; the transcript cannot be one sent to you or a facsimile (fax) transcript. You must be classified as either a junior or senior and have a cumulative grade-point average of at least 3.0 on a 4.0 scale. The special form granting permission to take a 500-level course may be obtained from the Office of Admissions and Records.

On-campus If you are an undergraduate junior or senior in any class carrying a 500-level course number, you must have at least a 3.0 cumulative grade-point average and have written approval on a special form from the instructor and your advisor. This form may also be obtained from the Office of Admissions and Records.

Graduate Credit via Senior Petition

You may begin graduate study early through the University's senior petition policy. A senior petition form may be obtained from the Office of Admissions and Records. After you get the form, you must have it signed by your advisor and the dean of the college granting your degree and the dean of the college of your intended graduate degree (if different). An individual from another West Virginia state higher education system school desiring to take a course at WVU must have the form signed by his or her advisor and the registrar. These signatures are necessary to certify the information contained on the form is correct and the student has a cumulative 3.0 grade-point average. The University has certain policies for you to enroll in a graduate course for graduate credit. The policies are:

- Senior petition applies only to courses numbered 400-599. You must be within 12 hours of receiving your bachelor's degree, and your grade-point average must be at least 3.0 on a 4.0 scale.
- You can receive only 12 graduate hours through the senior petition.
- You must have the proper signatures on your senior petition by the time you enroll in the petitioned courses.

Return the approved senior petition to the Office of Admissions and Records. It is kept on file so that you receive graduate credit for these courses on your permanent record. The dean of the college or school in which you are taking graduate courses must approve any exceptions to the policy.

Note: If you receive graduate credit for a course, the credit for that course does not count for your undergraduate degree.

Visitors

Full-time University students may attend classes as visitors. To visit a class, you must have permission in writing from your advisor and the instructor of the course. A member of the administration, teaching staff, or other regular University employees may attend classes as visitors. These individuals must have written permission from their department and the instructor of the class. A visitor does not receive credit for a class. You may not apply for credit by exam in a class in which you were a visitor.

Auditors

An auditor may register for courses and pay full fees. You do not receive credit for the course. If you audit a course, you must let one semester pass before you enroll in the course for credit. You may change your 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 Admissions and Records to remove an auditor from a class list or grade report if attendance requirements are not met.

Advanced Placement Program (AP)

Examination	Minimum Score	Credit Hours	Course Equivalent
ART (Studio)			
Drawing Portfolio	To be determined by Division of Art		
General Portfolio	To be determined by Division of Art		
ART HISTORY	3		ART 101
BIOLOGY	3	8	BIOL 101, 102, 103, 104
	4	4	BIOL 115
CHEMISTRY	3	8	CHEM 115-116
CLASSICS			
Latin: Virgil	3	3	CLAS 293 A
Latin: Catullus-Horace	3	3	CLAS 293 B
COMPUTER SCIENCE			
Computer Science A	3	3	non-specific C S
Computer Science AB	3	6	non-specific C S
(6 units maximum for both tests)			
ECONOMICS			
Microeconomics	3	3	ECON 201
Macroeconomics	3	3	ECON 202
ENGLISH			
Engl. Lit. and Comp.	3	3	ENGL 131
Engl. Lit. and Comp.	4	6	ENGL 131-132
Engl. Lang. and Comp.	3	3	ENGL 101
Engl. Lang. and Comp.	4	6	ENGL 101-102
(9 units maximum for both tests)			
ENVIRONMENTAL SCIENCE	3	4	GEOL 110 & 111/GEOG 110 & 111
FOREIGN LANGUAGE			
French Language	3	6	FRCH 301-302
French Literature	3	6	FRCH 293 & 493
German Language	3	6	GER 301-302
Spanish Language	3	6	SPAN 301-302
Spanish Literature	3	6	SPAN 293 & 493
GOVERNMENT AND POLITICS			
American	3	3	POLS 102
Comparative	3	3	POLS 101
HISTORY			
American	3	6	HIST 152-153
European	3	6	HIST 101-102
MATHEMATICS			
Calculus AB	3	4	MATH 129
Calculus AB	4	4	MATH 155
Calculus BC	3	4	MATH 155
Calculus BC	4	8	MATH 155-156
MUSIC			
Theory	3	3	To be determined by Division of Music
PHYSICS			
Physics B	3	4	PHYS 101*
Physics B	4	8	PHYS 101-102*
Physics C Mechanics	3	4	PHYS 111*
Phys. C Elec./Magnet.	3	4	PHYS 112*
PSYCHOLOGY			
Introductory Psych.	3	3	PSYCH 101
STATISTICS	3	3	STAT 211

*Note: Students receiving AP credit for any physics course will have to register for and complete the corresponding physics labs by special arrangement with the Department of Physics.

College Level Examination Program (CLEP)

General Examinations	WVU Equivalent	Minimum Score Required
English Composition (with essay)	ENGL 101 (3 hr.)	590
English Composition (multiple choice)	No credit	
Humanities	LSP A non-specified credit (6 hr.)	500
Mathematics	LSP C non-specified credit (4 hr.)	500
Natural Science	LSP C non-specified credit (6 hr.)	500
Social Science and History	LSP B (6 hr.)	500
Subject Tests		
American Literature	ENGL 241 (3 hr.)	59
Analysis & Interpret. of Literature	ENGL 131 (3 hr.)	59
College Composition	No credit	
English Literature	ENGL 262 (3 hr.)	60
Freshman English	No credit	
College French (levels 1 and 2)	FRCH 101 and 102 (6 hr.)	44
	FRCH 203 and 204 (6 hr.)	55
College German (levels 1 and 2)	GER 101 and 102 (6 hr.)	43
	GER 203 and 204 (6 hr.)	54
College Spanish (levels 1 and 2)	SPAN 101 and 102 (6 hr.)	45
	SPAN 203 and 204 (6 hr.)	54
American Government	POLS 102 (3 hr.)	50
American History I	HIST 152 (3 hr.)	49
American History II	HIST 153 (3 hr.)	49
Western Civilization I	HIST 101 (3 hr.)	50
Western Civilization II	HIST 102 (3 hr.)	50
General Psychology	PSYC 101 (3 hr.)	50
Human Growth and Development	CD&FS 110 (3 hr.)	51
Intro. Macroeconomics	ECON 202 (3 hr.)	50
Intro. Microeconomics	ECON 201 (3 hr.)	50
Intro. Sociology	SOCA 101 (3 hr.)	50
College Algebra	MATH 126 (3 hr.)	48
Trigonometry	MATH 128 (3 hr.)	54
College Algebra/Trig.	MATH 129 (4 hr.)	50
Calculus with Elementary Functions	MATH 155 (4 hr.)	49
General Biology	BIOL 101 and 102 (6 hr.)	49
	(no credit for the labs)	
General Chemistry	CHEM 116 (4 hr.)	70
Computers and Data Processing	To be determined by the dept.	49
Intro. to Management	BCOR 370 (3 hr.)	50
Intro. Accounting	ACCT 201 and 202 (6 hr.)	54
Intro. Business Law	BCOR 320 (3 hr.)	51

Summer Sessions

WVU has two six-week sessions. Summer Session One begins in the middle of May and ends on June 30. Summer Session Two begins on July 1 and ends the second week of August. Requirements for admission and work performance for the summer sessions are the same as for the regular semesters.

You may earn credit toward a baccalaureate, master's, doctoral, or professional degree in the summer sessions. Summer offerings vary from year to year. For complete information concerning course offerings during the summer sessions, consult the *Summer Session Schedule of Courses*.

Evening Classes

If you are unable to attend classes during the day, the University offers evening courses taught by regular faculty. These courses carry full college credit and are offered at both the undergraduate and graduate levels.

Classification of Students

WVU undergraduates are classified as freshmen, sophomores, juniors, or seniors. These classifications are based upon the number of hours completed. The classifications are as follows:

Freshman classification	1-28 hours, inclusive
Sophomore classification	29-58 hours, inclusive
Junior classification	59-88 hours, inclusive
Senior classification	89 or more semester hours

Grade-Point Average

All academic units of the University require minimum standards of scholastic quality. Your grade-point average is computed on grades earned in courses taken at WVU and institutions in the West Virginia system of higher education only. To be eligible to receive a baccalaureate you must have a grade-point average 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. Your grade-point average is based on all work for which you received letter grades other than W, WU, and P. See "D/F Repeat Policy," page 23.

You must make certain that you know your grade-point standing. You can obtain the necessary information concerning your grade-point standing from the dean of your college or school. To determine your grade-point average, use the method described in the section on grade points.

Graduation with Honors

WVU recognizes distinguished academic achievement by awarding degrees *cum laude*, *magna cum laude*, and *summa cum laude*. This distinction can be awarded on initial or second baccalaureates and specified entry-level professional degrees. All candidates for a baccalaureate with a grade-point average of 3.8 or higher graduate *summa cum laude*. Those with a grade-point average of less than 3.8, but equal to or above 3.6, graduate *magna cum laude*. Those with a grade-point average of less than 3.6, but equal to or above 3.4, graduate *cum laude*.

Your grade-point average for honors consideration for a baccalaureate is based on baccalaureate-level college work attempted through the next to the last semester or through the last semester, whichever GPA is higher. This calculation includes transferable baccalaureate-level college work attempted at all regionally accredited higher education institutions you have attended. Credit hours earned with a grade of P or S are not considered in the determination. The grade-point average for honors consideration for entry-level professional degrees is based on baccalaureate-level and professional-level work attempted through the next to the last semester or through the last semester, whichever GPA is higher. This calculation includes transferable baccalaureate-level and professional-level college work attempted at all regionally accredited higher education

institutions you have attended. Credit hours earned with a grade of P or S are not considered in the determination. Additionally, your GPA on WVU work must meet the requirements stated for the level of honors to be designated. If your GPA on WVU work indicates a lower level of honors, then the WVU GPA shall govern the specific designation.

Students entering and completing a second baccalaureate program following completion of the initial degree at the University are eligible to receive the honors designation. Grade-point averages for graduation with honors on second baccalaureates shall be computed on the last 80 semester hours of baccalaureate-level work excluding credit earned with a P or S. At least 30 semester hours must have been completed in the second degree program through the penultimate semester.

A request for an exception to this policy may be made to your dean. After review, the dean will forward all requests for exceptions of this policy to the provost for the final decision.

Academic Progress Courses

As a general rule, most courses taught at WVU extend for one semester, although some extend for two semesters. Credit is not awarded for a course if you do not attend the whole course. The only exception to this rule occurs if the Committee on Academic Standards decides to grant an exception. Grades reported at the end of the first semester in a two-semester course are merely an indication of the quality of the student's work to that point. Credit is not given for that part of the course completed. Courses taught in the summer sessions carry the same credit value as fall and spring semester courses.

Evaluation of Student Progress

Your progress is evaluated by a variety of methods. The measurement and evaluation of learning are consistent with the objectives of the course and provide the opportunity for you and your instructor to evaluate your progress. The University discourages evaluation by final examination only. You are responsible for all materials presented or assigned in scheduled instructional sections. If you do not complete all assigned work, you may earn an incomplete (I) or a failing grade (F).

The last week of each semester of the academic year is designated as finals week. Final examinations for the summer sessions are given on the last day of classes. The *Schedule of Courses* gives the dates and times for final examinations.

Practical laboratory tests, make-up examinations, and regularly scheduled short quizzes are the only tests permitted for day classes during the week of classes preceding finals week. Evening classes have their final exams on the last meeting of the class preceding finals week.

If you take a section of a multi-section course, you may be required to take the departmental final examination, given during the regular final examination period.

Grading System

- 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
- WU withdrawal from the University doing unsatisfactory work
- P pass (see "Pass-Fail Grading" below)
- X auditor, no grade and no credit
- CR credit but no grade
- PR progress final grade at end of the second semester (HSC)
- S satisfactory
- U unsatisfactory (equivalent to F)
- H honors course (medical school courses only)
- INC permanent incomplete
- IN incomplete grade not removed by next regular term (computed as an F)
- UF unforfeitable F (not eligible for D/F repeat policy)

Pass-Fail Grading

Pass-fail grading encourages you to take elective courses not related to your degree concentration. Pass-fail grading also facilitates grading in competency-based courses which may be an integral part of your program.

Student Option Any full-time student who has completed 15 hours or more and who has maintained a 2.0 grade-point average may take a maximum of four hours each semester or summer session on a pass-fail basis. Any course taken on a pass-fail basis must be a free elective. You are limited to a total of 18 hours of pass-fail credit in your collegiate career. Unless otherwise indicated, courses in your major, courses in other subjects that are required by the major, and courses taken to satisfy University, college, school, or departmental requirements are excluded from pass-fail. For example, courses elected to satisfy the English, Liberal Studies Program (LSP), or foreign language requirements may not be taken for pass-fail grading.

If you elect a course on a pass-fail basis, you are graded as a regular student. The instructor turns in the appropriate letter grade to the Office of Admissions and Records. This letter grade is then converted to a P on the basis of A, B, C, or D for a pass and F for a fail. The grade of P does not affect your grade-point average. However, any F grade affects your grade-point average whether it is a regular grade or a pass-fail grade.

You choose the option of pass-fail grading for a course during the registration period. Once the registration period has ended, you may not change the grade status in the course.

College or School Option A department or unit may designate any performance- or competency-based course as exclusively pass-fail. To institute this, the college or school must have the approval of the Faculty Senate. Courses offered only as pass-fail are not included in the maximum of 18 hours that may be freely elected under the student option.

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

The grade-point average is computed on all work for which you registered, with the following exceptions:

- Courses with a grade of W, WU, P, S, and X carry no grade value. The grade of incomplete (I) initially carries no grade value.
- The grade of I is given when the instructor of the course believes that the work is unavoidably incomplete or that an additional examination is justified. To remove the grade of I, you do not register for the course again; instead, you arrange to submit incomplete or supplemental work to the original instructor of the course. When you receive the grade of I and later remove the incomplete grade, the grade-point average is calculated on the basis of the new grade. If you do not remove the I grade within the next semester in which you are enrolled, the grade of I is treated as an F (failure). The Academic Standards Committee of the appropriate college or school may allow you to postpone removal of the I grade if you can justify a delay.
- If you are working toward teacher certification, you are responsible for every registration in a course in which the grade of A, B, C, D, F, WU, P, X, or I is received.

GPA Calculations

Students like 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:

English 101	B	Mathematics 126	A
Geology 101	C	Political Science 101	B
Spanish 101	D	Orientation 101	P

Course	Credits	Grade	Value	Credits x Value	Grade Points Earned
English 101	3	B	3	3 x 3	= 9
Geology 101	3	C	2	3 x 2	= 6
Spanish 101	3	D	1	3 x 1	= 3
Mathematics 126	3	A	4	3 x 4	=12
Political Sci. 101	3	B	3	3 x 3	= 9
Orientation 1 01	1	P	0	1 x 0	= 0

1. Multiply the credit by the grade value to get the grade points earned for each course.
2. Add the total grade points, in this case, 39.
3. 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.

D/F Repeat Policy

WVU has a D/F repeat policy for undergraduate students who have not received their initial baccalaureate. If you earn a D or F in a course at WVU taken no later than the semester or summer session registration when you reach a cumulative total of 60 hours attempted, you are eligible to "D/F repeat" that course by meeting with your academic advisor sometime during the semester in which you are repeating the course and filling out the appropriate forms. The course must be repeated at WVU, Potomac State College of WVU, WVU at Parkersburg, or WVU Institute of Technology. You will have only one opportunity to improve your original grade. The new grade becomes the grade that counts, even if your performance is worse than when you were originally graded.

When you have D/F repeated a course, the following happens:

1. The original grade is disregarded for the purpose of determining your grade-point average, hours passed, and hours attempted.
2. The original grade is not deleted from your permanent record.

3. The second grade is entered on your transcript and marked as included (I) in the semester that you repeated the course.
4. You can exercise your right under the D/F repeat policy at any time before you receive your initial baccalaureate. If you get a grade of F in a course for academic dishonesty the grade is not eligible for change under the D/F repeat provisions. Such a failure is indicated on your permanent record by an UF and is calculated in your grade-point average.

Grade Reports

During the seventh week of classes in the fall and spring semesters, instructors submit a report of all undergraduate students earning grades of D or F in undergraduate courses. These grades are used for counseling and are not recorded on the student's official transcript. These reports are sent first to the Office of Admissions and Records and then to the student, the student's advisor, and the dean of the college or school in which the student is enrolled.

Final grades are reported within 48 hours after the end of the final examination. The instructor submits the grade reports to the Office of Admissions and Records. The final grades of all seniors provisionally approved for graduation at the close of each semester or summer session are reported to the deans of their colleges or schools. Special report forms for this purpose are supplied by the student's dean.

At the end of each semester or at the close of each summer session, a report of each student's work is prepared for that period and sent to the student.

West Virginia University Policy on the Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 is a federal law which states: (a) that a written institutional policy must be established; and (b) that a statement of adopted procedures covering the privacy rights of students be made available. The law provides that the institution will maintain the confidentiality of student education records.

West Virginia University accords all the rights under the law to students who are declared independent. No one outside WVU shall have access to nor will WVU disclose any information from students' educational records, without the written consent of students except to personnel within WVU and the West Virginia Higher Education Policy Commission; to persons or organizations providing students' financial aid; to accrediting agencies carrying out their accreditation function; to persons in compliances with judicial order; to organizations conducting studies for, or on behalf of, education agencies of institutions for the purpose of developing, validating, or administering predictive testing student aid programs, and improving instruction; and to persons in an emergency in order to protect the health or safety of students and or other persons. All these exceptions are permitted under the act.

The act also permits disclosure of information from students' educational records, without the written consent of students, to parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954, as amended. West Virginia University intends to consider all students as "dependent" for purposes of disclosure of information to parents unless the students specifically notify in writing the WVU Office of Admissions and Records that they are not a "dependent" of their parents for federal income tax purposes. Students need to give such written notification only once.

The West Virginia University Policy on the Family Educational Rights and Privacy Act explains in detail the procedures to be used for compliance with the provisions of the act. Copies of the policy can be found in the offices of all deans and directors. The policy also is printed in the *Student Handbook* and annually in the *Daily Athenaeum*. The offices of the deans and directors can inform students as to the locations of all education records maintained on students by West Virginia University.

Official Transcripts

Each copy of an official transcript costs five dollars, payable by check or money order. You may request, in person, an on-the-spot transcript at a cost of eight dollars. Priority transcripts are not available at all times. Because of demand, it may take two or three weeks to process an application for a regular transcript at the close of a semester or summer session. At other times, it is the policy of WVU to process all regular transcript requests within 48 hours of receipt of the request.

If you owe money or have some other financial obligation to any unit of the University, you forfeit your right to claim a transcript of your record or your diploma until these financial obligations have been met.

When you apply for a transcript, you must furnish your last date of attendance and your student number. Be sure to indicate the full name under which you were enrolled. Requests for transcripts must be made in writing to the Office of Admissions and Records. We cannot accept telephone requests because of the risk of the security of your record.

Final Grade Appeals

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. The primary intent of this procedure is to provide a mechanism whereby a student might appeal a failing grade or a grade low enough to cause the student to be eliminated from some program or to require the repetition of a course. Grade appeals that do not meet this classification are not precluded.

Step 1. The student shall discuss the complaint with the instructor involved prior to the mid-semester of the succeeding regular semester, 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 chairperson of the instructor's department or division (or, if none, the dean). The chairperson or dean shall assume the role of an informal facilitator and assist in their resolution attempts. If the problem is not resolved within 15 calendar days from when the complaint is first lodged, the student may proceed directly to step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal within 30 calendar days from when the original complaint was lodged. Copies of this document shall be given to the instructor and to the instructor's chairperson (or, if none, to the dean). If, within 15 calendar days of receipt of the student's signed document, the chairperson does not resolve the problem to the satisfaction of the student, the student will forward the complaint to the instructor's dean (see step 3).

Step 3. Within 15 calendar days of receipt of the complaint, the instructor's dean shall make a determination regarding the grade, making any recommendation 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 notify in writing the faculty member involved of the grade challenge, which shall include a statement of the facts and evidence to be presented by the student.
2. The committee shall provide to the faculty member involved and the student making the appeal written notification of their right to appear at a hearing to be held before the department, college, or school representative committee, together with the 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.

Absences

Importance of Class Attendance At WVU, 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 their courses.

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 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. Such make-up examinations should be of comparable difficulty to the original examination.

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*.

Withdrawals From Individual Classes

Deadlines Until the Friday of the tenth week of class (or Friday of the fourth week in a six-week summer session, or Friday of the second week of a three-week summer session), students may withdraw from individual courses. Deadlines are published in the University *Schedule of Courses* each semester. If you follow all established University procedures and withdraw before the published deadline, you will receive a W on your transcript. Grade-point averages are not affected in any way by this mark.

Procedures

Before withdrawing from individual classes, consult your advisor to determine if:

- Your course load would be reduced below the minimal requirements set by your college or school. If so, you must get permission from the Committee on Academic Standards of your college or school.
- Your course load would be reduced below the minimal number of hours required to qualify for financial aid, varsity athletic competition, or international full-time student status.
- The courses to be dropped are required to fulfill academic probationary conditions.
- The courses from which you want to withdraw might be corequisite with other courses you are taking, or prerequisite to other courses required for the next term.

Withdrawal From All Classes for the Term

Deadlines You may withdraw from the University any time before the last day of a semester or session on which regular classes are scheduled to meet. If you withdraw before the Friday of the tenth week of classes (or the Friday of the fourth week in a six-week summer session, or the Friday of the second week of a three-week summer session) you receive grades of W in all of your courses for that semester or session. After these deadlines, you will receive grades of W in those courses in which you made satisfactory progress and grades of WU for courses in which your progress had been unsatisfactory.

Procedures

1. Students who decide to leave WVU should withdraw from all classes and must do so in accordance with established University policy. Students are responsible for all financial obligations and for following established procedures. This includes the completion of forms and the delivery of the completed forms to appropriate officials. Students not fulfilling their financial obligations may have difficulty withdrawing from the University.
2. Students who are unable to withdraw in person because of illness, accident, or other valid reasons still must send notification of their intention to withdraw to the Office of Admissions and Records. The notice should be verified in writing and the student Mountaineer card enclosed.
3. Students who desire to withdraw from WVU must obtain a withdrawal form from the Admissions and Records Office (or dean's office of an off-campus instructional unit). Withdrawal procedure is explained at that time. The student's Mountaineer card must be presented.
4. With the help of their academic advisors, students are responsible for determining how withdrawal from the University may affect their future status with the University, including such aspects as suspension for failure to make progress toward a degree or violation of established academic probation and eligibility for scholarships, fellowships, or financial aid.

Academic Leave of Absence

WVU offers undergraduate students in good standing, as defined by WVU's uniform suspension policy and not subject to disciplinary action, the opportunity to request an academic leave of absence. The academic leave of absence is designed for the student who wishes to be away from his or her academic endeavors at WVU for one or more semesters, but intends to return at a later date. Leave of absence status must be requested before the beginning of the semester for which the leave is desired. The academic records of students on an academic leave of absence remain in an active status. While on an academic leave of absence, the student retains the right to use certain campus facilities such as the Study Skills Center, Writing Lab, Math Lab, Student Counseling Service, and Career Services. When a student decides to return to WVU after his or her academic leave of absence, application fees are waived. If a student attends any institutions of higher education while on leave of absence, an overall average of 2.0 must be obtained on all work attempted in order to be eligible to return. An overall grade-point average of 2.0 on all work attempted while on leave combined with the WVU grade-point average is also acceptable. While on an academic leave of absence, the student receives communications from WVU. Academic advisors and the Office of Admissions and Records can provide additional details about an academic leave and eligibility requirements.

Re-Enrollment After Withdrawal

After you withdraw from WVU in two consecutive semesters (excluding summer sessions), you may not register for further work without approval of the dean of the college or school in which you want to register, subject to conditions set by that dean.

Committee on Academic Standards

The Committee on Academic Standards of each college or school shall have authority to proceed according to its best judgment in regard to students referred to it for consideration. All orders of the committee shall become effective when approved by the dean of the college or school. In exercising its authority, the committee shall not suspend a student during a semester except for willful neglect and in cases where the student's class grades are so low that further class attendance would be a waste of time. No suspension shall become effective until approved by the dean of the college or school.

Probation, Suspension, Readmission, Expulsion Policy

Uniform Probation

Students with a cumulative grade-point average below 2.0 are notified on semester grade reports that their academic performance is unsatisfactory. Such students may be subject to probation by the dean of their college or school. A unit may require a grade-point average above 2.0 or other academic requirements for purposes of determining probation or meeting degree requirements. Students have the right to have the sanction of academic probation reviewed and explained by the academic official who imposed the sanction. Academic probation is not recorded on a student's permanent record and essentially constitutes a warning to the student of standards which must be met.

Uniform Academic Suspension Regulations

The student whose cumulative grade-point deficiency exceeds the "allowable grade-point deficiency" (see table on page 45) is subject to suspension at any time. Normally, students are suspended at the end of a semester or summer school session. Deans have the authority to waive suspension in favor of probation if in their judgment the circumstances of individual cases so warrant. The suspension rule will be set aside only under extraordinary conditions.

Academic suspension identifies the status of a student who has failed to meet the University minimum standards and who has been notified formally by the dean of the college or school of academic suspension. Suspension from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University for academic credit 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 from the date of a student's first suspension. 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 to the University. Students are not eligible for readmission if they earn less than a 2.0 at other institutions while on suspension from WVU.

After one semester of satisfactory performance (C average or better on a minimum of 12 credit hours earned during a regular semester or during the summer sessions) the appropriate transfer credit will be entered into the student's record upon certification by the advisor and dean that the above conditions have been met. A student who has preregistered and is subsequently suspended shall have his or her registration automatically cancelled.

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 one time 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. The college which reinstates the student removes the student's suspension restriction in Admissions and Records and accepts the student.

A suspended student who is reinstated under the provisions above will be placed on academic probation and will be subject to the maximum grade-point deficiency regulations as before, unless the terms of probation agreed to by the student and that college stipulate otherwise. 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 and Records.

Maximum Allowable Grade-Point Deficiency*

Total Hours Attempted**	Maximum Grade-Point Deficiency**	Total Hours Attempted**	Maximum Grade-Point Deficiency**
10-19	20	55-59	12
20-24	19	60-64	11
25-29	18	65-69	10
30-34	17	70-74	9
35-39	16	75-79	8
40-44	15	80-84	7
45-49	14	85 or more	6
50-54	13		

*The grade-point deficiency is the difference between the number of grade points needed for a 2.0 average and the number of grade points that a student has actually earned in all courses attempted.

**Includes all hours attempted in institutions in the West Virginia system of higher education, excluding grades of P and exclusive of the D/F Repeat Policy.

Appeal of Suspension

Imposition of academic suspension based on grade-point average, failure to meet the conditions previously specified for removal of academic probation, or failure to meet the conditions of admission, may be appealed under the following conditions:

- The student may appeal individual final course grades and, if successful, may be reinstated.
- The student may make an appeal to the appropriate dean based on erroneous calculation of the grade-point average or on erroneous calculation of the time period within which a grade-point average must be achieved. The decision of the dean, as the president's designee, is final.

Students have the right to appeal academic suspensions based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran status, religion, age, disability, national origin, creed, ancestry, or political affiliation. At the dean's discretion, suspensions may remain in effect until appeal procedures are completed.

Step 1. The student shall discuss the complaint with the dean involved within 30 calendar days of the action taken. If the two parties are unable to resolve the matter satisfactorily within 15 calendar days, the student may proceed to Step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document shall be given to the University Committee on Student Rights and Responsibilities. Within 15 calendar days of receipt of the appeal, the University Committee on Student Rights and Responsibilities will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of the date, time, and place of the hearing.

2. The student may be advised by a person of his or her choice from within the institution; likewise, the academic officer recommending suspension may have an advisor from within the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate.
 3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
 4. Witnesses may be called by any of the parties involved.
 5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.
- The decision of the University Committee on Student Rights and Responsibilities will be sent to the dean involved and the student within seven calendar days of the hearing. If the decision requires a reinstatement, the dean will take action in accordance with the committee's decision. If the decision of the committee is to uphold the suspension, the student's appeal must reach the appropriate vice president within 30 calendar days of receipt of the committee decision. The vice president will review and make a decision regarding the suspension within 15 calendar days of receiving the student's appeal. The decision of the vice president, as the president's designee, is final.

Uniform Academic Dismissal Regulations

Academic dismissal from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University. Academic dismissal can result from repeated failure to make academic progress and/or to meet probationary terms set forth in writing by the student's college or school.

After five calendar years from the effective date of academic 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 entered. Failure to meet these terms will result in permanent academic expulsion.

Appeal of Dismissal—Failure to Meet Academic Standards

The procedures and appeals described here do not apply to dismissal as a sanction for academic dishonesty. The time limitations stated herein are suggested in order to render a decision as expeditiously as possible. In the case of University holidays or absence of person(s) involved, reasonable delays may be expected.

A decision to dismiss a student for failure to meet academic standards (as distinguished from academic dishonesty) can be made only after the student has been counseled by the appropriate departmental committee or representative, with counseling to take place as soon as possible after discovery of the problem. After the student is given a reasonable opportunity to correct deficiencies, there shall then be a formal review of the student's status by the appropriate departmental or program committee to determine whether the student shall be retained or dismissed. The student may provide the committee written documentation of his or her efforts to correct deficiencies.

A committee recommendation for dismissal, including any documentation provided by the student to the committee, shall be forwarded to the student's dean and to the student. Within 15 calendar days of receipt of the committee's recommendation, the dean shall inform the student and the student's department or program of his or her decision. A decision to dismiss shall specify whether the dismissal is from the program or college or school. The dean may also dismiss a student from the institution if the student does not meet institutional standards.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of the dean's receipt of the student's appeal, the student may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the appropriate vice president within 15 calendar days of failure to resolve the matter at the dean's level. Prior to the decision of the vice president, the student will be given an opportunity to discuss the appeal with the vice president. The decision of the vice president, as the president's designee, shall be rendered within 15 days of receipt of the student's appeal and is final.

Appeal of Dismissal—Failure to Meet Academic Requirements or Performance Standards

Dismissal, based on failure to meet academic requirements or performance standards irrespective of grades or grade-point average, from undergraduate programs, graduate programs, professional programs, and/or from the institution, may also be appealed. Students have the right to appeal academic dismissal based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran status, religion, age, disability, national origin, creed, ancestry, or political affiliation.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of the dean's receipt of the student's appeal, the student may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the University Committee on Student Rights and Responsibilities, which, within 15 calendar days of receipt of the student's appeal, will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of date, time, and place of hearing.
2. The student may be advised by a person of his or her choice from the institution; likewise, the academic officer recommending academic dismissal may have an advisor from the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate directly in the proceedings unless they are given specific permission by the University Committee on Student Rights and Responsibilities chairperson.
3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. Witnesses may be called by any of the parties involved.
5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.

The University Committee on Student Rights and Responsibilities will reach a decision within seven days. The committee's recommendation for dismissal must be reviewed by the appropriate vice president, who may confirm or remand the recommendation with specific instructions. Prior to the decision of the vice president, the student will be given an opportunity to discuss the appeal with the vice president. Within 15 calendar days of a recommendation for dismissal confirmed by the vice president, the student may appeal to the president. The decision of the president is final.

Academic Integrity and Dishonesty

The academic development of students and the overall integrity of the institution are primary responsibilities of WVU. Academic dishonesty is condemned at all levels of life, indicating an inability to meet and face issues and creating an atmosphere of mistrust, disrespect, and insecurity. In addition, it is essential in an academic community that grades accurately reflect the attainment of the individual student. Faculty, students, and administrators have shared responsibilities in maintaining the academic integrity essential for the University to accomplish its mission.

Responsibilities

Students should act to prevent opportunities for academic dishonesty to occur, and in such a manner to discourage any type of academic dishonesty. Faculty members are expected to remove opportunities for cheating, whether related to test construction, test confidentiality, test administration, or test grading. This same professional care should be exercised with regard to oral and written reports, laboratory assignments, and grade books.

Deans and department chairpersons are expected to acquaint all faculty with expected professional behavior regarding academic integrity, and to continue to remind them of their responsibility. Deans and department chairpersons shall assist faculty members and students in handling first-offense cheating allegations at the lowest possible level in the University, and with discretion to prevent damage to the reputation of any person who has not been found guilty in the prescribed manner.

Each member of the teaching faculty and all other WVU employees, including but not limited to assistants, proctors, office personnel, custodians, and public safety officers, shall promptly report each known case of academic dishonesty to the appropriate supervisor, department chairperson, or dean of the college or school concerned, and to the Office of Judicial Programs, Office of Student Life.

Academic Dishonesty Defined

WVU expects that every member of its academic community shares the historic and traditional commitment to honesty, integrity, and the search for truth. Academic dishonesty is defined to include but is not limited to any of the following:

1. **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: submitting, without appropriate acknowledgement, a report, notebook, speech, outline, theme, thesis, dissertation, or other written, visual, or oral material that has been copied in whole or in part from the work of others, whether such source is published or not, including (but not limited to) another individual's academic composition, compilation, or other product, or commercially prepared paper.
2. **Cheating and dishonest practices** 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 or 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.
3. **Forgery, misrepresentation, or fraud:**
 - a. Forging or altering, or causing to be altered, the record of any grade in a grade book or other educational record.
 - b. Use of University documents or instruments of identification with intent to defraud.
 - c. Presenting false data or intentionally misrepresenting one's records for admission, registration, or withdrawal from the University or from a University course.
 - d. Knowingly presenting false data or intentionally misrepresenting one's records for personal gain.
 - e. Knowingly furnishing the results of research projects or experiments for the inclusion in another's work without proper citation.
 - f. Knowingly furnishing false statements in any University academic proceeding.

Procedure for Handling Academic Dishonesty Cases

Academic dishonesty includes plagiarism; cheating and dishonest practices in connection with examinations, papers, and projects; and forgery, misrepresentation, and fraud. Some cases of forgery, misrepresentation, or fraud which occur outside the context of courses or academic requirements may be referred directly to the University Committee on Student Rights and Responsibilities by any member of the University community. In such cases, the University Committee on Student Rights and Responsibilities will arrange a hearing following the procedure outlined in Step 3 within 15 calendar days of receipt of the charges.

Step 1. Instructor's Level

1. **Instructor's Notice** An instructor who suspects a student of dishonest practices may meet with the student to discuss the evidence and may drop the matter without making a formal accusation and without imposing a penalty.

An instructor may not find guilt or impose a penalty without a written charge that describes the evidence against the student. Within 15 calendar days of discovering clear evidence of an offense, an instructor who wishes to charge a student with academic dishonesty must *personally deliver written notice of the charges or send the notice by certified U.S. mail to the student's local and permanent addresses.*

2. **Student's Response** A student who elects to respond must do so in writing no later than 15 calendar days after the mailing or personal delivery of the instructor's written notice. The student may respond by admitting or denying guilt, by offering counter evidence, or by describing extenuating or mitigating circumstances that might affect the instructor's judgement of the severity of the offense.

3. **Instructor's Decision** Within five calendar days of the student's response or after the opportunity for response has passed (whichever comes first), the instructor must reach a decision and send written notice of the decision to the student (and, if guilt is found, to others named below).

- a. **Charge withdrawn** An instructor who believes that the evidence is not sufficient to establish guilt should immediately notify the student of this decision in writing, thus closing the case.

- b. **Penalty imposed** An instructor who is convinced that the student is guilty and wishes to impose an academic penalty must summarize the evidence justifying the penalty in a written notice to the student. The notice must also inform the student of the right to petition the dean within 30 calendar days. Copies of the notice must be sent to the dean of college or school offering the course, the dean of the college or school in which the student is enrolled, and the Office of Judicial Programs. The maximum penalty an instructor may impose is an unforgivable F in the course. The Office of Judicial Programs will notify Admissions and Records to enter an unforgivable F, which cannot be removed from the student's transcript unless the decision is reversed. If the student repeats the course and a new grade is entered, the unforgivable F will still remain on the transcript.

The instructor may exclude the student from further participation in the course, but is discouraged from doing so unless the student has admitted guilt in writing. The instructor may impose lesser penalties, including (but not limited to) a reduced grade on the work or examination in question, assignment of remedial work, or a reduced grade (including a forgivable F). The instructor may also recommend to the dean of the college offering the course that additional penalties be imposed.

Step 2. Dean's Level

A student may petition the dean on two grounds, which may be presented at the same time or separately within the 30-day time limit. A student may (I) ask the dean to review the conduct of the case for adherence to correct procedures; (II) challenge the finding of guilt or the severity of the penalty; or (III) do both.

1. **Procedural Review** A student who believes that the instructor failed to follow correct procedures at Step I may petition the dean of the college or school in which the course is offered to conduct a review of the procedures. The student must submit the petition in writing, specifying the procedural errors, within 30 days of the instructor's written notice.

Within 15 calendar days of receiving the student's petition, the dean or the dean's designee must:

- a. Notify the instructor that a procedural review is being conducted at the student's request and give the instructor an opportunity to reply.
- b. Decide, after reviewing the available information, whether any procedural errors were made and whether such errors affected the outcome of the case.
- c. Send written notice of the decision and its rationale to the student, instructor, and dean of the college in which the student is enrolled, and the Office of Judicial Programs.

A dean or dean's designee who decides that the outcome was affected may (I) direct the instructor to reopen the case and to correct the error(s) within a specified period of time or (II) overturn the instructor's decision and nullify the penalty, in which case the dean must see that the student's record is amended. If the dean or dean's designee decides that the outcome was not affected, the instructor's decision stands.

2. **Appeal** A student who wishes to challenge the instructor's finding of guilt or the severity of the penalty may appeal to the dean of the college or school in which the course is offered. The appeal must (I) be made in writing within 30 calendar days of the instructor's written notice; (II) state specific grounds for any claim that the finding of guilt was unwarranted or the penalty unjust; and (III) specify the desired remedy.

Within 15 calendar days of receiving the student's appeal the dean or dean's designee must:

- a. Notify the instructor that the student is appealing and specify whether the finding of guilt, the severity of the penalty, or both will be reviewed.
 - b. Solicit from the instructor and the student evidence and arguments relevant to the issues.
 - c. Make this material available to both the student and the instructor.
 - d. Arrange a meeting of the instructor, the student, and the dean or dean's designee. (A person from within the University may accompany the student to the meeting and may consult with the advise but not speak on behalf of the student or otherwise participate directly in the discussion unless given explicit permission by the dean or dean's designee.
 - e. Decide, based on the available evidence, whether to uphold the decision being challenged.
 - f. Send written notice of the decision, with summary minutes of the meeting and a rationale for the decision to the student, instructor, dean of the college or school in which the student is enrolled, and Office of Judicial Programs.
 - g. See that the student's record is amended if necessary.
3. **Additional Penalties** The dean or dean's designee may impose penalties beyond those imposed by the instructor if the instructor recommends such action or if the dean's understanding of the case in the context of other misconduct by the student suggests that additional penalties are warranted. The dean or dean's designee may consider such action only after completing any procedural review or appeal requested by the student or after opportunities have passed for the student to initiate a review or appeal (that is, after it is clear that the instructor's decisions will stand). Within 15 calendar days of this time, the dean or dean's designee must:
 - a. Notify the student that additional penalties are being considered.
 - b. Give the student an opportunity to provide additional evidence or argument that might affect a decision about the appropriate penalty and to answer any questions by the dean or dean's designee.
 - c. Decide, based on the available evidence, whether to impose any additional penalties.

- d. Send written notice of the decision, including a summary of the evidence of the decision, including a summary of the evidence and a rationale for the decision, to the student, instructor, dean of the college or school in which the student is enrolled, and Office of Judicial Programs.
- e. See that the student's record is amended if necessary.

Step 3. University Committee Level

A student or instructor may petition the Committee on Students Rights and Responsibilities on two grounds, which may be presented at the same time or separately within 30 calendar days of receipt of the dean's decision. A petitioner may (I) ask the committee for a procedural review; (II) challenge decisions made at Step 2; or (III) do both. Those petitioning the committee must do so in writing through the Office of Judicial Programs.

1. **Procedural Review** The student or the instructor may ask the committee to conduct its own review of the procedures followed in Steps 1 and 2.

- a. The petition must (I) name the dean or instructor who is believed to have made the error(s); (II) describe the alleged procedural error(s); (III) specify how the error(s) affected the outcome of the case or otherwise harmed the student or the cause of justice; and (IV) include copies of all documentation and correspondence about the case.
- b. On receipt of the petition, the committee chair, in consultation with the Office of Judicial Programs, will convene a panel of two faculty members and one student who will decide by majority vote whether to conduct the review. No member of this panel may serve on any other panel in connection with the same case. If the panel denies the petition, the procedural case is closed when written notice of the denial and its rationale has been sent to the student, instructor, dean of the college or school offering the course, dean of the college or school in which the student is enrolled, and the Office of Judicial Programs.

If a majority of the panel agrees that a review is warranted, they must (I) give the student, instructor, and dean a reasonable opportunity to answer any questions the panel may have; (II) decide, based on a review of the any such errors affected the outcome of the case; and (III) send written notice of the decision, with summary minutes of the meeting and a rationale for the decision to the student, instructor, deans of the college or school offering the course and the college or school in which the student is enrolled, and the Office of Judicial Programs.

- c. A panel that decides by majority vote that the outcome was affected by error(s) may (I) direct the dean or instructor to reopen the case and to correct the error(s) within a specified period of time or (II) overturn the finding of guilt and nullify the penalty. In either course of action, the panel must provide the rationale for the decision.
- d. The dean of the college or school offering the course must see that the student's record is amended if necessary.

2. **Appeal** The student or instructor may challenge the decision(s) of Step 2. (If the dean upheld the instructor's finding or penalty, then the student is appealing the instructor's decision, not the dean's.)

- a. The petition must (I) specify the decision being appealed; (II) name the person whose decision is being appealed; (III) specify grounds for any claim that the finding of guilt was unwarranted or the penalty unjust; (IV) specify the desired remedy; (V) provide additional evidence or line or argument not previously introduced that might affect the outcome of the case; (VI) include copies of all documentation and correspondence about the case.
- b. On receipt of the appeal, the committee chair, in consultation with the the Office of Judicial Programs, must convene a panel of three faculty and two student members, chaired by one of the faculty members. This panel may decide by majority vote whether to conduct a hearing. If the panel decides that no hearing is warranted, the appeal is denied and the case is closed when written notice of the denial, including the rationale, has been sent to the student, instructor, dean of the college in which the course is offered, dean of the college in which the student is enrolled, and the Office of Judicial Programs.

If the panel deems a hearing is warranted, the Office of Judicial Programs must, in a timely manner, arrange a hearing to accommodate the schedules of the student, instructor, and dean, as well as any other parties involved, all of whom must be notified in writing of the date, time, and place of the hearing, as described below.

- I. The administrative procedure is not adversarial; the formal rules of evidence do not apply.
- II. Witnesses may be called by any of those involved.
- III. The person bringing the appeal and the person whose decision is under appeal may be accompanied by an advisor from within the University who may consult with but not speak on behalf of the advisee or otherwise participate directly in the proceedings unless given explicit permission by the chair of the panel.
- IV. A written record of the hearing must be prepared in the form of summary minutes with relevant attachments and must be provided to those involved upon written request. In addition, a tape recording of the hearing must be made a part of the permanent record.
- V. Within seven calendar days of the hearing the panel must decide by majority vote, based on the available evidence whether to uphold the decision(s) under appeal and must send written notice of the decision, specifying the numerical vote, to the student, instructor, dean of the college or school offering the courses, dean of the college or school in which the student is enrolled, and Office of Judicial Programs. The dean of the college offering the course must see that the student's record is amended if necessary.
- VI. If the panel overturns the decision(s) of Step 2, whether by charging the finding of guilt or by imposing, reinstating, or modifying a penalty, the panel's notice must summarize the evidence they considered and provide a rationale for the decision.
- VII. In an appeal by a student, the panel may not impose a penalty more severe than that imposed or upheld by the dean at Step 2; in an appeal by an instructor, the panel may not impose a penalty more severe than that imposed by the instructor at Step 1.

Step 4. President's Level

The student or the instructor may appeal decisions of the University Committee on Student Rights and Responsibilities to the president or president' designee. Such appeals must (I) be made in writing within 30 calendar days of notice of the decision of the Committee on Student Rights and Responsibilities; (II) state specific grounds for any claim that the committee's decision was faculty or unjust; and (III) specify the desired remedy. On receipt of the appeal, the president or president's designee will decide whether or not to hear the appeal. The decision of the president or of the president's designee is final.

Graduate Admission and Policies

Health Sciences Center Graduate Council

The Health Sciences Center Graduate Council advises the vice president for Health Sciences. In this role the council monitors and administers the graduate studies policies of the schools located at the Health Sciences Center.

Application and Admission

Prospective graduate students 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.

In all cases, application must be made for admission to graduate study on standard forms provided by the WVU Office of Admissions and Records. The completed form is to be returned to the Office of Admissions and Records, and must be accompanied by payment of a nonrefundable special service fee of \$45. Applicants must at the same time request the registrar or records office of the college send an official transcript directly to the Office of Admissions and Records. If other institutions have been attended in the

course of undergraduate or graduate study, transcripts should be requested from them as well. No one is admitted to graduate study who does not hold a baccalaureate degree.

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.

Reapplication

When a student graduates or completes the program for which he/she applied, the student must reapply and be readmitted before taking further coursework at WVU. This policy assures that the University is informed of the student's objectives and that he/she is assigned an appropriate advisor. Students will be assessed the application fee for each new application.

When eight years have passed since initial coursework, a student must reapply. The application fee will be assessed.

Classification of Graduate Students

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

Provisional A student may be admitted as provisional by any unit when the student possesses a baccalaureate degree but clearly 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 which shows promise, but less than the 2.75 grade-point average required for regular admission.

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. To be admitted as a non-degree student, a student must only present evidence of a baccalaureate degree, however the student must obtain a 2.5 grade-point average on the first 12 credit hours of coursework and maintain this average as long as enrolled. To be eligible to enter a degree program, the student must maintain a minimum of a 2.75 grade-point average on all coursework taken since admission as a graduate student.

Reclassification

Provisional to Regular

- The provisions of a student's provisional status must be specified in the letter of admission.
- To be reclassified as a regular student, a student must meet the provisions and achieve a minimum grade-point average of 2.75 on all coursework taken during the provisional period. Individual degree programs may set higher grade-point average requirements.
- No later than the completion of the 18th credit hour, a unit must review the student's record and make a final decision on the student's admission. A student who has met the provisions of admission and achieved the required grade-point average will be reclassified as a regular 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 and Records of its decision.
- Upon notification by the appropriate academic unit, the Office of Admissions and Records will prohibit the registration of all provisional graduate students who have reached the maximum of 18 credit hours. Registration will not be permitted until the student is reclassified as a regular student, an exception is granted by an academic dean, or the student is transferred.

- A student may be admitted as a provisional graduate student more than one time, but not to the same graduate program.
- All credit hours taken since admission as a provisional graduate student or to be applied to a degree count in the 18 credit-hour limit, i.e., undergraduate or graduate credit, P/F, S/U, graded courses, credit by senior petition, and transfer credit.

Regular or Provisional to Non-Degree

- Regular and provisional students may become non-degree students by choice. This includes students who fail to meet admission or academic standards or who withdraw voluntarily.
- To change a student to non-degree status, the advisor must process a Graduate Studies Transfer/Status form through the Health Sciences Center Graduate Programs Office.

Non-Degree to Regular or Provisional:

- Non-degree students who later wish to become degree candidates must transfer and present all the credentials required by the degree program. This requires the processing of a Departmental Decision form by the student's advisor through the HSC Graduate Programs Office.
- For admission to a degree program, a non-degree student must have achieved a minimum grade-point average of 2.75 on all coursework taken since admission as a graduate student.

Graduate Record and Other Examinations

Many programs at WVU require Graduate Record Examination (GRE) scores from all applicants, but in no program are they the sole criterion for admission. Some programs require both the general aptitude and the appropriate advanced test before considering an applicant for admission. All departments in the School of Medicine and School of Pharmacy require that a student take the GRE test.

International Student Admission

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

April 1 is the application deadline for the fall semester. International students applying for admission to WVU must submit the following:

- Completed International Student Admission Application.
- Application service fee.
- Results of the Test of English as a Foreign Language (TOEFL). TOEFL results must be sent to WVU directly from the Educational Testing Service (ETS).
- Original or certified copies of an official academic record in original language of issue.
- Original or certified copy of all certificates or diplomas in original language of issue.
- Official English translations of academic record and certificates/diplomas.

International applicants who have completed high school in the United States may also be required to submit ACT or SAT results.

The above items should be sent to Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009 and must be received by the application deadline. If possible, all application material should be submitted at one time (TOEFL scores and official transcripts from United States institutions should be requested so that all material arrives at WVU close to the same date). Incomplete applications cannot be guaranteed consideration for the desired semester.

Required Academic Credentials

Applicants must submit academic records from all secondary and post-secondary institutions attended regardless of whether grades were issued or credit was received. WVU requires that original or certified copies of the original academic documents from non-United States institutions be submitted. The required documents include the official academic record (showing course titles, dates taken, and grades received), and diploma(s) or certificate(s) showing degree awarded. These documents must be in the *original language of issue*. Official English translations must be included. Translations must be literal, word-for-word translations, and must indicate actual grades received, not an interpretation of the grades. Applicants who have studied in the United States are required to have the institution(s) in the U.S. send the official transcript directly to WVU.

Documents received by WVU become the property of WVU and cannot be returned to the applicant or copied for the applicant. It is therefore recommended that students who receive only one original copy of credentials submit certified copies with the application.

English Language Proficiency

All applicants whose first language is not English must provide proof of English language proficiency. WVU uses the Test of English as a Foreign Language (TOEFL) as the measure of English language proficiency. A score of 213 on the computer-based TOEFL or 550 on the paper-based TOEFL is the minimum required. Applicants should make arrangements to take the TOEFL well in advance of the desired date of enrollment at WVU. Information about registration for the TOEFL can be obtained by writing to: TOEFL/TSE Services, P.O. Box 6151, Princeton, NJ 08541-6151, USA, or by contacting the local office of the United States Information Service (USIS).

Applicants who have received a high school diploma or a bachelor's degree in the United States need not submit TOEFL results.

In some cases, it may be possible to consider applications from students who lack adequate TOEFL scores and who will enroll in WVU's Intensive English Program. Such applicants must contact the Intensive English Program directly and notify the Office of Admissions and Records of their intentions. *Admission to the Intensive English Program does not guarantee admission to the University or to a specific program of study.* Inquiries should be directed to: Intensive English Program, WVU Department of Foreign Languages, P.O. Box 6297, Morgantown, WV 26506-6298; phone: (304) 293-3604; on-line: www.as.wvu.edu/forlang.

Financial Documents and Student Visa

International students requiring a form I-20 or IAP-66 for student or exchange visa must provide certification of adequate financial resources. Generally, the student is required to provide an official bank statement showing the availability of the appropriate funds. If a private sponsor will be the student's source of support, the sponsor must submit a letter showing intent to sponsor and an official bank statement showing the availability of the appropriate funds. Other forms of support could include sponsorship certifications from the student's government or sponsoring agency. In all cases, original or certified copies of financial/sponsorship documents must be submitted before the I-20 or IAP-66 can be issued.

Intra-University Transfers

To transfer from one school or department to another, a student may initiate a transfer request by contacting the Health Sciences Center Graduate Programs Office or his or her advisor. The advisor must contact the Health Sciences Center Graduate Programs Office, which will complete the transfer.

Credits

Credit toward a graduate degree may be obtained only for courses listed in the graduate catalog and numbered 400–799, in which the grade earned is A, B, C, or S. No course in which the grade earned is D, P, F, or U can be counted toward a graduate degree.

Employed Graduate Students

Graduate students will be required by their advisors to limit their credit loads in proportion to the outside service rendered and the time available for graduate study. In general, persons in full-time service to the University, or other employer, will be advised to enroll for no more than six hours of work in any one semester and those in half-time service for no more than 12 hours. Maximum credit loads may be less for employed graduate students in some academic colleges, schools, and departments.

Non-Degree Graduate Students

A non-degree graduate student may accumulate unlimited graduate credit hours, but if the student is later admitted to a degree program, the faculty of that program will decide whether or not 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 12 hours of credit toward a degree.

Transfer or Transient Credit

To apply graduate-level credits from other institutions toward a master's degree at WVU, students must get permission from the individual schools or colleges. The standardized transient application form must be approved and signed by a unit chairperson or designate, prior to the student enrolling in the course(s) to be transferred to WVU. The school or department submits the approved form to the Health Sciences Graduate Programs Office for final, approval and submission to the Office of Admissions and Records. It is the students responsibility to see that admissions and records gets an original transcript from the other institution. Only credit earned at institutions accredited at the graduate level may be transferred.

Graduate courses taken elsewhere will not be approved for transfer credit unless the transient application form was approved before enrolling in them. When a school or department approves the form, it is sent to the Health Sciences Center Graduate Programs Office for approval. A maximum of 12 semester hours from other institutions will be accepted for credit at WVU in master's programs requiring 30 to 41 semester hours. Eighteen semester hours will be accepted for master's degree programs requiring 42 or more semester hours. Individual graduate programs may accept fewer credit hours.

Time Limits

Master's Degree All requirements for a master's degree must be completed within eight years preceding the student's graduation.

Doctoral Degree 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 the dissertation. The degree signifies that the holder has the competence to function independently at the highest level of endeavor in the chosen profession. Hence, the number of years involved in attaining or retaining competency cannot be readily specified. Rather, it is important that the doctoral student's competency be assessed and verified in a reasonable period of time prior to conferral of the degree.

The 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. It is expected that the examination will occur after all coursework has been completed and language or other requirements satisfied, and it consists of a series of examinations covering all areas specified in the plan of study. After the component parts of the qualifying examination have been successfully passed, the student is admitted to candidacy for the degree. It is sometimes called the candidacy examination because no one can be called a doctoral candidate until this first requirement for the degree has been met.

Because the qualifying examination attests to the academic competence of the student who is about to become an independent researcher or practitioner, the examination should not precede the degree by too long a period of time. Consequently, doctoral candidates are allowed no more than five years in which to complete remaining degree

requirements. In the event a student fails to complete the doctorate within five years after admission to candidacy, an extension of time can be obtained only by repeating the qualifying examination, and meeting any other requirements specified by the student's committee.

Contractual Nature of Graduate Study

The student's rights, privileges, obligations, and responsibilities are contained in the graduate catalog, the plan of study, and, if research is one of the degree program requirements, the prospectus. Although not contracts in the formal legal sense, they are agreements between the University and a student for the accomplishment of planned educational goals.

Plan of Study

The plan of study is submitted within the first academic year (18 hours for a master's and 30 hours for doctorate/after thesis committee for nursing) to the Health Sciences Center Graduate Programs Office. The plan of study is subject to approval and is made a part of the student's record. It then becomes a formal agreement between student and program faculty as to the conditions which must be met for completion of the degree requirements. Any subsequent changes in plan of study (or prospectus) can be made only through mutual agreement, with a memorandum of changes sent to the Health Sciences Center Graduate Programs Office.

Records

The Health Sciences Center Graduate Programs Office maintains all records for monitoring student progress and for certifying students for graduation. Among these records are plans of study (subject to chairperson of Health Sciences Center Graduate Council's approval); graduate committees (subject to school dean's or designate's approval and approval of the Health Sciences Center Graduate Programs Office); grades and grade modifications.

Grading

Pass/fail grading is not applicable to the coursework for a graduate degree. A graduate student may register for any course (100–499) on a pass/fail basis only if the course involved is not included in the student's plan of study and does not count toward a graduate degree. The selection of a course for pass/fail grading must be made at registration and may not be changed after the close of the registration period. A student who, having taken a course on a pass/fail basis, later decides to include the course as part of a degree program must re-register for the course on a graded (A, B, C, D, or F) basis.

Incompletes

The grade of I is given when the instructor believes the coursework is unavoidably incomplete or that a supplementary examination is justifiable. The grade of I must be removed within one academic year or made a permanent incomplete. Grade modification forms are to be signed by the instructor of the course and then forwarded to the Health Sciences Center Graduate Programs Office for processing.

Grade changes other than I to a letter grade must be accompanied by an explanatory memo.

Dissertation Procedures

Procedural rules for dissertations and theses are found in the *WVU Graduate Catalog*.

Dismissal

Dismissal from a graduate or professional program may be based on program and/or professional performance standards other than cumulative grade-point average. Reasons must be based on catalog and other written documents describing academic and professional performance standards and expectations.

Procedures

1. Counseling by departmental committee or representative as soon as possible after discovery of problem.
2. Second counseling by departmental committee or representative after opportunity to improve if performance is not changed sufficiently.
3. Formal review of student status by department or program committee.
The formal review will result in one of the following actions:
 - Student retained or recommended for dismissal.
 - Counseling or remediation steps required as a condition of retention.
 - Appeals available if dismissal recommended.
4. A dismissal decision by the dean of the student's school or college may be appealed to the University conduct/appeals committee which will hold a hearing using the following procedures:
 - The student may be advised by a person of his/her choice to assure due process protection not to affect the outcome of the proceedings. The advisor may consult with the student but shall not speak on behalf of the student or participate directly unless granted specific permission by the University conduct/appeals committee.
 - The formal rules of evidence do not apply.
 - The administrative procedure is not adversarial in nature.
 - Witnesses may be presented and examined under oath.
 - An accurate record of the procedure is to be kept. The student may request a transcript of the proceedings at the student's expense.
 - An academic appeals committee has the right to counsel in those proceedings in which the student has retained counsel. Such counsel may not speak on behalf of the institution or otherwise participate directly in the proceedings.
5. A decision for dismissal must be reviewed by the appropriate academic vice president who may confirm or remand the recommendation with specific instructions.
6. Recommendation for dismissal confirmed by the appropriate academic vice president may be appealed to the president. The decision of the president is final.

Students' Committees

Doctoral dissertation committees will consist of no fewer than five members, the majority of whom, including the chairperson, will be regular graduate faculty. No more than one person may be a non-member. At least one member of every doctoral committee must be from a department other than the one in which the student is seeking a degree.

Master's committees of programs requiring a thesis will consist of no fewer than three members, the majority of whom will be regular graduate faculty, including the chairperson. No more than one person may be a non-member.

Master's committees of programs not requiring a thesis will consist of no fewer than three members, one of which must be a regular graduate faculty member. No more than one person may be a non-member, and the non-member cannot chair or advise.

Committee approval must be obtained prior to the second semester for a master's degree and prior to the fourth semester for the doctorate. Committee approval for the nursing program is after the third semester.

Committee Approval

All graduate committees are subject to the approval of the school dean or designate and the Health Sciences Center Graduate Programs Office.

Fees

Regulations

All West Virginia University fees are subject to change. All fees are due and payable to the Office of Student Accounts prior to the start of classes. Arrangements with the Office of Student Accounts for payment from officially accepted scholarships, loan funds, grants, or contracts must be completed prior to the start of classes.

All students are expected to register on days set apart for registration at the beginning of each semester or summer session of the University. No student will be permitted to register at the University after the eighth day of a semester or the fourth calendar day of the summer sessions or a single summer session. Days are counted from the first day of registration. Any student failing to complete registration on regular registration days is subject to a late registration fee of \$30.

Registering students pay the fees shown in the fee charts, plus special fees and deposits as required.

No degree is conferred upon any candidate 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.

It is the policy of WVU to place on restriction students who have outstanding debts to a unit or units of the University. The restriction may include, but is not limited to, the withholding of a student's registration, diploma, or transcript.

Financial Aid

Students interested in applying for financial aid need to complete a Free Application for Federal Student Aid (FAFSA). This form is the application for all major federal student aid programs and must be received at the federal processing center by March 1 for applicants to receive maximum consideration.

For the summer session(s) a separate WVU Financial Aid Application is also required. Forms are available in the Financial Aid Offices in the Mountainlair, the Health Sciences Center, and the College of Law.

Students can also complete a FAFSA on the Internet at www.fafsa.ed.gov. Instructions are available at University libraries and computer labs and in the Financial Aid Offices.

For those students who filed a FAFSA for the previous year, a renewal application may be used. Renewal FAFSAs are mailed to students' home addresses to arrive by mid-January. Students who do not receive a renewal FAFSA by that time should contact the Financial Aid Office for a regular FAFSA or file by using the web address above.

Fees for Extended Learning Courses

Fees for credit hours for off-campus courses are the same as those charged students enrolled in on-campus courses. Extended learning students do not pay the *Daily Athenaeum* Fee, the Radio Station Fee, or the Mountainlair Construction Fee. However, all students must pay \$33 per credit hour for each extended learning course taken.

Laboratory Fees

Laboratory fees will be assessed to all students, full-time or part-time, undergraduate or graduate, for each lab section enrolled. Some departments may also have additional fees or rental fees.

Special Fees

Application for Undergraduate Admission	
(Resident)	\$15.00
(Non-resident)	35.00
Application for Admission (Dentistry and Medicine)	45.00
Application for Admission (College of Law or Graduate Studies)	45.00
Diploma Replacement	20.00
Examination for Advanced Standing	35.00
Examination for Entrance Credit, per unit	1.00
General Educational Development Tests (high school level)	15.00
(If the applicant applies for admission to and registers in WVU within twelve months of the date of qualifying for the test, a \$10.00 credit shall be established for the applicant.)	
Graduation	30.00
(Payable by all students at the beginning of the semester or session in which they expect to receive their degrees.)	
Late Registration Payment	30.00
(Not charged to students who complete registration during the regular registration days set forth in the University calendar.)	
Professional Engineering Degree (Includes \$20.00 Graduation Fee)	45.00
Program Reactivation Fee (Graduate Students)	45.00
Reinstatement of Student Dropped from the Rolls	20.00
Student Identification Card Replacement	10.00
Student's Record Fee	5.00
Official Transcript	5.00
Official Letter	5.00
Statement of Degree Letter, Grade-Point Average Letter	5.00
Priority Service (Transcript/Letter)	8.00

Summer Tuition and Fees

<i>Undergraduate Students</i>	<i>Resident</i>	<i>Non-resident</i>
Tuition, per semester hour	\$82.00	\$312.00
<i>Daily Athenaeum Fee*</i>	7.00	7.00
Radio Station Fee*	5.00	5.00
Health, Counseling, and Program Services Fee	116.00	116.00
Mountainlair Construction Fee, per six-week summer session or any portion thereof*	60.00	60.00
Student Affairs Fee*	35.00	35.00
Transportation Fee*	58.00	58.00
Athletic Fee*	50.00	50.00
Recreation Fee*	90.00	90.00

*These fees are pro-rated per credit hours.

Non-Sufficient Funds Check Policy and Service Charge

Payments of tuition, fees, and other charges by check, draft, or order are subject to WVU's Non-Sufficient Funds Check Policy. A copy of the policy is available in the Bursar's Office. A service charge of \$15 is collected on each check returned unpaid by the bank upon which it was drawn. Service charge on unpaid, returned checks is subject to change in accordance with state law.

Refund of Fees

A student who officially withdraws from the University or goes from full-time to part-time status within the refund period is eligible for a refund of tuition and fees. Every effort is made to process refunds within 30 days.

To withdraw from the University officially and receive a refund, a student must apply at the Office of Student Life in E. Moore Hall. Tuition, special fees, the optional health service fee, and certain miscellaneous fees are refundable based upon the date of withdrawal and student status.* Lab fees are refundable during the first week of classes only, based upon student status.* Miscellaneous fees that are *not refundable* include the application fee, transcript fee, graduation fee (if graduating), late registration/payment fee, and reinstatement fee.

Exceptions Students entering the armed services of the United States may be granted full refund of refundable fees (but no course credit) if the call comes before the end of the first three-fourths of the semester. If the call comes after that, full credit for courses may be granted if the student has passing grades at the time of departure.

Students withdrawn due to catastrophic illness or death will be provided a refund as approved by the dean of Student Life or his or her designee.

If a student drops below full-time status (12 hours for undergraduates or nine for graduates), tuition, special, and certain miscellaneous fees are refundable based upon the date of the course drops. The optional health fee, application fee, transcript fee, graduation fee, late registration/payment fee, and reinstatement fee are not refundable.

Refund Schedules

Fall and Spring Semesters

Refund Period		Refund Period	
1st Week	90%	4th Week	70%
5th Week	50%	2nd Week	90%
6th Week	50%	3rd Week	70%

Refunds for summer sessions are published in their respective *Schedule of Courses*.

***Note:** Students who are enrolled for their first semester at WVU or who received a full refund for the previous semester and who received Title IV aid receive refunds according to federal regulations, which require refunds to be figured using both state (BOT Series #22) and statutory pro rata (Higher Education Amendments of 1992) calculations. After figuring both refunds, the calculation that provides the larger refund is given.

Cost of an Academic Year's Work

The Student Financial Aid Office estimates that the total cost of attending WVU for a nine-month academic year is \$10,173 for single West Virginia residents living on campus, \$10,422 for single West Virginia residents living off campus, and \$7,107 for those living at home. The total cost for single non-residents living on campus is \$15,357; for single non-residents living off campus, \$15,606; and for non-residents living at home, \$12,291. These typical estimated student budgets include tuition and fees, books and supplies, room, board, transportation, and personal expenses to provide a modest but adequate lifestyle.

Identification Card

An identification card is issued to each full-time student when fees are paid in full. Certain part-time students can be eligible for an identification card when the appropriate fees are paid. It admits the owner to certain University athletic events, various activities of student administration, Health Service, and Mountainlair. Confiscation will result from misuse. The University reserves the right to refuse reissuance of an identification card.

Estimated Expenses for Graduate/Professional Health Sciences Center Programs

These estimated expenses are accurate as of March 2001 and are subject to change. For current accurate tuition costs, please call Admissions and Records at 1-800-344-WVU1. Tuition and registration fees are the same for both semesters. Tuition and registration fees are per semester; other fees are per year. Some programs require summer sessions. Additional tuition and fees apply.

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	TOTALS	
	Resident	Non-resident				Resident	Non-resident
Dentistry*							
First Year	\$2,774.00	\$7,403.00	\$9,700.00	\$800.00	\$2,400.00	\$15,674.00	\$20,303.00
First Summer	901.00	1,756.50	2,900.00	—	400.00	3,775.00	4,202.50
Second Year	2,774.00	7,403.00	9,000.00	500.00	1,800.00	14,074.00	18,073.00
Second Summer	901.00	901.50	1,806.00	—	100.00	2,381.00	2,808.50
Third Year	2,774.00	7,403.00	3,000.00	500.00	750.00	7,024.00	11,653.00
Third Summer	901.00	901.50	500.00	—	—	975.00	1,402.50
Fourth Year	2,774.00	7,403.00	2,500.00	2,000.00	500.00	7,774.00	12,403.00
Medicine							
First Year*	4,816.00	12,012.00	1,000.00	100.00	1,500.00	7,416.00	14,612.00
First Year Summer	80.00	80.00	—	—	120.00	5,512.00	12,262.00
Second Year*	4,816.00	12,012.00	400.00	100.00	1,000.00	6,316.00	13,512.00
Third Year	4,816.00	12,012.00	—	100.00	930.00	5,846.00	13,042.00
Third Year Summer	80.00	80.00	—	200.00	—	5,012.00	11,762.00
Fourth Year	4,816.00	12,012.00	—	100.00	930.00	5,846.00	13,042.00
Pharmacy*							
First Year	2,804.00	8,205.00	—	530.00	630.00	3,964.00	9,365.00
Second Year	2,804.00	8,205.00	—	530.00	630.00	3,964.00	9,365.00
Third Year	2,804.00	8,205.00	—	530.00	630.00	3,964.00	9,365.00
Fourth Year	2,804.00	8,205.00	—	530.00	630.00	3,964.00	9,365.00
HSC Graduate Programs							
Master of Public Health Program	1,750.00	5,191.00	—	—	—	—	—
	2,034.00	5,756.00	—	—	—	—	—

*Note: First and second-year medical students have additional notebook computer lease fee of \$1,680.00 per year.

Estimated Expenses for Undergraduate Health Sciences Center Programs

These estimated expenses are accurate as of March 2001 and are subject to change. For current accurate tuition costs, please call Admissions and Records at 1-800-344-WVU1. Tuition and registration fees are the same for both semesters. Tuition and registration fees are per semester; other fees are per year. Some programs require summer sessions. Additional tuition and fees apply.

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	TOTALS	
	Resident	Non-resident				Resident	Non-resident
Dentistry							
Dental Hygiene							
Freshman	\$1,630.00	\$4,986.00	\$ 250.00	\$ 95.00	\$500.00	\$2,475.00	\$5,831.00
Sophomore	1,630.00	4,986.00	1,500.00	105.00	400.00	3,635.00	6,631.00
Junior	1,630.00	4,986.00	600.00	255.00	400.00	2,885.00	6,011.00
Senior	1,630.00	4,986.00	200.00	850.00	300.00	2,980.00	6,336.00
Medicine							
Medical Technology							
Junior	1,630.00	4,986.00	200.00	100.00	420.00	2,350.00	5,706.00
Summer	328.00	748.00	—	250.00	175.00	745.00	1,165.00
Senior	1,630.00	4,986.00	—	440.00	165.00	2,235.00	5,591.00
Physical Therapy*							
First Year	1,630.00	4,986.00	100.00	—	900.00	2,630.00	5,986.00
Summer	246.00	561.00	—	325.00	—	290.00	605.00
Second Year	1,630.00	4,986.00	—	230.00	900.00	2,760.00	6,116.00
Summer	492.00	1,122.00	—	—	—	480.00	1,110.00
Third Year	2,041.00	5,672.00	—	230.00	650.00	2,921.00	6,642.00
Summer	492.00	1,122.00	—	—	—	480.00	1,100.00
Occupational Therapy*							
Summer	410.00	935.00	25.00	75.00	150.00	650.00	1,175.00
Year One	1,630.00	4,986.00	150.00	75.00	1,100.00	2,955.00	6,311.00
Year Two	1,630.00	4,986.00	150.00	—	950.00	2,574.00	5,721.00
Summer	246.00	561.00	—	—	—	240.00	555.00
Year Three	2,041.00	5,762.00	150.00	—	350.00	2,541.00	6,262.00
Nursing							
Sophomore	1,630.00	4,986.00	76.00	253.00	758.00	2,717.00	6,073.00
Junior	1,630.00	4,986.00	—	51.00	303.00	1,984.00	5,340.00
Senior	1,630.00	4,986.00	—	—	303.00	1,933.00	5,289.00

*Note: Physical Therapy and Occupational Therapy students have additional Notebook Computer Lease Fee of \$1500.00 and Computer Software Fee of \$200.00 per year.

Residency Policy

Section 1 of this policy bulletin contains general information regarding its scope and dates of adoption.

Section 2. Classification for Admission and Fee Purposes

2.1 Students enrolling in a West Virginia public institution of higher education shall be assigned a residency status for admission, tuition, and fee purposes by the institutional officer designated by the president. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person's true, fixed, permanent home and place of habitation. The decision shall be based upon information furnished by the student and all other relevant information. The designated officer is authorized to require such written documents, affidavits, verifications, or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition, and fee purposes is upon the student.

2.2 If there is a question as to domicile, the matter must be brought to the attention of the designated officer at least two weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident fees for each academic term theretofore attended.

2.3 The previous determination of a student's domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of a reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

Section 3. Residence Determined by Domicile

3.1 Domicile within the state means adoption of the state as the fixed permanent home and involves personal presence within the state with no intent on the part of the applicant or, in the case of a dependent student, the applicant's parent(s) to return to another state or country. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in this state for admission or fee payment purposes. West Virginia domicile may be established upon the completion of at least twelve months of continued presence within the state prior to the date of registration, provided that such twelve months' presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia.

3.2 Establishment of West Virginia domicile with less than twelve months' presence prior to the date of registration must be supported by evidence of positive and unequivocal action. In determining domicile, institutional officials should give consideration to such factors as the ownership or lease of a permanently occupied home in West Virginia, full-time employment within the state, paying West Virginia property tax, filing West Virginia income tax returns, registering of motor vehicles in West Virginia, possessing a valid West Virginia driver's license, and marriage to a person already domiciled in West Virginia. Proof of a number of these actions shall be considered only as evidence which may be used in determining whether or not a domicile has been established.

3.3 Factors militating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns or the parents' health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states, and leaving the state when school is not in session.

Section 4. Dependency Status

4.1 A dependent student is one who is listed as a dependent on the federal or state income tax return of his or her parent(s) or legal guardian or who receives major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the domicile of the parent with whom he or she lives or to whom he or she has been assigned by court order. However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state.

4.2 A non-resident student who becomes independent while a student at an institution of higher education in West Virginia does not, by reason of such independence alone, attain domicile in this state for admission or fee payment purposes.

Section 5. Change of Residence

5.1 A person who has been classified as an out-of-state student and who seeks resident status in West Virginia must assume the burden of providing conclusive evidence that he or she has established domicile in West Virginia with the intention of making the permanent home in this state. The intent to remain indefinitely in West Virginia is evidenced not only by a person's statements, but also by that person's actions. In making a determination regarding a request for change in residency status, the designated institutional officer shall consider those actions referenced in Section 2 above. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification.

Section 6. Military

6.1 An individual who is on full-time active military service in another state or foreign country or is an employee of the federal government shall be classified as an in-state student for the purpose of payment of tuition and fees, provided that the person established a domicile in West Virginia prior to entrance into federal service, entered the federal service from West Virginia, and has at no time while in federal service claimed or established a domicile in another state. Sworn statements attesting to these conditions may be required. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

6.2 Persons assigned to full-time active military service in West Virginia and residing in the state shall be classified as in-state students for tuition and fee purposes. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

Section 7. Aliens

7.1 An alien who is in the United States on a resident visa or who has filed a petition for naturalization in the naturalization court, and who has established a bona fide domicile in West Virginia as defined in Section 3, may be eligible for in-state residency classification, provided that person is in the state for purposes other than to attempt to qualify for residency status as a student. Political refugees admitted into the United States for an indefinite period of time and without restriction on the maintenance of a foreign domicile may be eligible for an in-state classification as defined in Section 3. Any person holding a student or other temporary visa cannot be classified as an in-state student.

Section 8. Former Domicile

8.1 A person who was formerly domiciled in the state of West Virginia and who would have been eligible for an in-state residency classification at the time of his or her departure from the state may be immediately eligible for classification as a West Virginia resident provided such person returns to West Virginia within a one-year period of time and satisfies the conditions of Section 3 regarding proof of domicile and intent to remain permanently in West Virginia.

Section 9. Residency Decisions/Appeals

Following is the process for initially determining residency for tuition purposes and how students appeal if they disagree with those decisions. Initial residency decisions are made at the admission level. Any questionable decisions are referred to the designated institutional official who determines whether the student meets the residency requirements or additional information is needed to make the decision. If additional information is needed, the student is requested to submit further documentation. If a student feels he or she has been improperly classified as a non-resident for tuition purposes, he or she should request an application for classification as a resident student at West Virginia University. To request this application write: Residency Officer, Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506-6009, or call (304) 293-2121.

Once this application and supporting documents are received, a decision is made by the designated institutional official. If the student meets the requirements as outlined by the Board of Trustees Policy Bulletin #34, the student is granted residency for the upcoming semester. If the student does not meet the necessary requirements, the student is denied in-state residency. If denied, the student has the option of appealing the decision to the WVU Council on Residency. The council consists of faculty and student representatives, whose number shall be at least three. The student representative(s) shall be appointed by the president of West Virginia University Student Administration while the faculty representative(s) shall be selected by the University Faculty Senate. The student contesting a residency decision shall be given the opportunity to appear before the institutional committee on residency appeals.

If the council overturns the initial denial, the student becomes a resident for the semester in question. Should the council uphold the original denial, the student has the option of appealing to the president of WVU. The president, again, may either uphold the original denial or overturn the decision of the council.

Residency appeals shall end at the institutional level.

School of Dentistry

James J. Koelbl, D.D.S., M.S., M.J., Dean

Louise T. Veselicky, D.D.S., M.D.S., M.Ed. Senior Associate Dean, Educational Programs

Richard J. Crout, D.D.S., M.S., Ph.D., Associate Dean, Research

Gordon G. Keyes, D.D.S., M.S., J.D., Assistant to the Dean Institutional Advancement

Shelia S. Price, D.D.S., Ed.D., Assistant Dean, Admissions and Student Affairs

Linda J. Rudy, M.B.A., Assistant Dean, Business and Finance

Frank H. Stevens, D.D.S., Assistant Dean, External Affairs

Degrees Offered

D.D.S. in Dentistry

M.S. in Dental Specialties

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 began studies in September 1957. The 23 members of that class graduated in 1961, receiving the first dental degrees awarded in West Virginia. More than 200 students are now enrolled in the accredited dental program. In September 1961, the first students were enrolled in the school's degree program in dental hygiene and were graduated in 1965.

Mission

- To provide the people of West Virginia with an oral health center for education, research, and service activities.
- To contribute to and improve the dental health of all people, especially the citizens of West Virginia.

The School of Dentistry of West Virginia University 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 one four-year residency. Seven general practice residencies and three advanced education in general dentistry residencies are also offered. Programs leading to the master of science and doctor of philosophy degrees are available in the associated basic sciences. 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 vice president 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 150 treatment cubicles and all necessary related laboratories. The 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 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 our 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 the Handicapped. The Academy of Dentistry for the Handicapped is an international organization for dental students and 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 Handicapped Patients," 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 12 percent of each senior class. Candidates are from the academically superior 20 percent.

Dental Fraternities. Chapters of two national dental fraternities, Delta Sigma Delta and Psi Omega, are active at the school.

The Student American Dental Hygienists' Association is the official organization representing the dental hygiene profession. Student dental hygienists have the opportunity of student membership in the association.

Sigma Phi Alpha is the national dental hygiene honorary society. Student membership is limited to 10 percent of each graduating class. Candidates are selected on the basis of scholarship, character, and potential as a dental hygienist.

Dental Hygiene

Christina DeBiase, Director

Degree

Bachelor of Science in Dental Hygiene

Dental Hygiene, a Division of the School of Dentistry, offers a four-year curriculum leading to a B.S. in dental hygiene. The program is, in part, based in the liberal arts, but it is also a thoroughly professional education. The format of the curriculum is not conventional, in that it includes courses from many academic disciplines. The program prepares students through classroom and practical experiences.

Program Goals

- Preparation of individuals to perform to the level of competency specified by the faculty, the state boards of dental examiners, and employers (those oral health services legally approved for a dental hygienist in any state, district, or territory of the United States). Presently these services include: observation, recording, prevention, treatment, education, and communication.
- Preparation of individuals capable of performing the clinical skills delegated to any allied dental personnel (excluding the dental laboratory technician).
- Preparation of dental hygienists to teach clinical skills and didactic information in allied dental education programs.
- Preparation of individuals capable of performing coordinative and administrative functions in public health, hospitals, and community-related areas in urban and rural settings.
- Preparation of dental hygienists who have a keen sense of social awareness and personal and professional ethics.
- Preparation of dental hygienists to continue their professional development beyond graduation through continuing education, advanced studies, self study, independent thought, and graduate endeavors.
- Preparation of dental hygienists who have the capability to understand and adapt to new developments and changes in science, technology, and practice of comprehensive health care.
- Provision of an educational foundation for advanced studies.
- Provision of the degree completion option to allow students holding an associate's degree or certificate in dental hygiene to obtain a bachelor of science in dental hygiene.

Admission Requirements

To get application and reference forms, please write to the Division of Dental Hygiene, P.O. Box 9425, West Virginia University, Morgantown, WV 26506-9425, or to the Office of Admissions, Health Sciences Center, P.O. Box 9815, West Virginia University, Morgantown, WV 26506-9815. As soon as possible in the year preceding the year you want to enter the program, you should apply and complete the aptitude tests. Forms for the following year are available in September.

If you have no previous study in higher education, you will apply for admission as a freshman at WVU. You must have a diploma from an accredited high school or preparatory school, and we expect you to have these courses listed on your high school transcript:

English—4 units
Biology—1 unit

Algebra—2 units
Chemistry—1 unit

Plane geometry—1 unit

We pay particular attention to scholastic achievement in science courses. We also expect applicants to rank in the upper half of their graduating class. Physical strength with the ability to sit and stand as required, fine precision bilateral manipulative hand/motor skills, adequate visual acuity, eye/hand/foot coordination, and emotional stability are essential characteristics for individuals who wish to enter and continue in the dental hygiene program. They must meet other medical qualifications as required. Reasonable accommodation will be considered for students with special needs.

We require that you take the American College Testing Program examination or the Scholastic Aptitude Test. We ask for personal references to be submitted on our reference form. All three references must be sent by the writer of the reference directly to the Division of Dental Hygiene. The Dental Hygiene Admissions Committee reviews all applications and may require you to come to the campus for a personal interview. If the committee requests an interview, you will receive a letter stating the date, time, and place of the interview. Competition for admission to our program is intense and we give preference to West Virginia resident's.

Degree Completion Program

If you are a registered dental hygienist, we can admit you directly to the Division of Dental Hygiene as a full-time or part-time student. To be eligible for the degree completion program, you must have a certificate or associate's degree from an accredited dental hygiene program. You can transfer lower-division credits (see "Dental Hygiene Suggested Curriculum"). Your acceptance and placement in the program depends upon your academic record and upon the number of spaces available.

When you apply, we ask you to include complete records of previous study. In addition to an official transcript mailed to us by the registrar of your previous school, we ask you to include catalog descriptions of the courses taken. If you are currently enrolled in a certificate or associate's degree program, we ask that you include your program of study. You are responsible for the submission of complete records.

You can enter the degree completion program twice a year. Applications can be obtained after September 1 of the year preceding application to the program.

Requirements

To summarize the admission process for the degree completion program:

- Complete the accredited certificate/associate's degree program in which you are currently enrolled or offer proof of a previously completed program.
- Present at least a 2.5 grade-point average for all college work attempted. If your grade-point average is below our minimum, you can petition the Dental Hygiene Admissions Committee for special consideration.
- Successfully complete the Dental Hygiene National Board Examination and submit your score.
- Submit two letters of reference, one from the director of your previous program and one from a clinical instructor. If you have professional experience, substitute a letter from your employer for either of the above.

The Admissions Committee may ask you to come for a personal interview before they make a final decision on your application.

Academic Standards and Policies

At the end of every semester, the Dental Hygiene Committee on Academic Standards reviews the status of every student in the program. The committee recommends promotion, probation, or dismissal to the dean of the School of Dentistry.

If the students fulfill all course requirements, meet all professional standards, and have the necessary grade-point averages, promotion is unconditional.

1. Students must maintain a cumulative and dental hygiene/science grade-point average of 2.0 or better.
2. A grade of F in a dental hygiene/science course or failure to attain a 2.0 cumulative or dental hygiene/science grade-point average in any semester will result in placing a student on probation.
3. A student on probation who does not raise the cumulative or dental hygiene/science grade-point average to 2.0 or better after one semester may be dismissed from the Dental Hygiene Program.
4. A student who receives a grade of D, F, or WU in a required dental hygiene/science course must repeat that course. Courses may only be repeated *once*. Failure to earn a grade of C or better may result in dismissal from the Dental Hygiene Program.

5. A student may repeat only *three* dental hygiene/science courses throughout the course of the curriculum.
6. Dental hygiene/science pre-requisite courses in which students earn a grade of D, F, or WU must be repeated prior to the student's progression to the next course in that sequence.

The dental hygiene/science average is based on grades earned in these courses or their equivalents: Anatomy 301 and 309; Biology 102 and 104; Chemistry 111 and 112; Dentistry 700; Microbiology 200; Pathology 301 and 302; Pharmacology and Toxicology 260; Physiology 241; and all Dental Hygiene courses.

The Division of Dental Hygiene reserves the right to dismiss or require remedial work of any student who does not perform at a level of satisfactory for patient care.

Dental Hygiene Suggested Curriculum

First Year

First Semester	Hrs.	Second Semester	Hrs.
ORIN 101	1	BIOL 102	3
ENGL 101	3	BIOL 104	1
Cluster B (Comm 100-102)	3	CHEM 112	4
MATH 126	3	DTHY 185 <i>Oral Anatomy</i>	3
CHEM 111	4	HN&F 171 <i>Intro. Nutrition</i>	3
DTHY 101	2	Cluster B (PSYCH 101)	3
Total	16	Total	17

Second Year

First Semester	Hrs.	Second Semester	Hrs.
ANAT 301	4	PSIO 241	4
Cluster B (SOC 101)	3	ANAT 309 <i>Histology</i>	2
DTHY 205		PCOL 260	3
<i>Theory and Pract. of Prevent.</i>	2	DTHY 225 <i>Dent. Hy. Technics</i>	4
MBIM 200	3	ENGL 102	3
Cluster A	3	DTHY 220 <i>Dent. Nrsg. Technics</i>	1
Cluster B (PSYCH 241)	3	Total	17
Total	18		

Third Year

First Semester	Hrs.	Second Semester	Hrs.
DTHY 363 <i>Periodont. 1</i>	1	DTHY 364 <i>Periodont. 2</i>	2
PATH 301	2	DTHY 378 <i>Teaching Methods</i>	2
DTHY 320 <i>Dent. Radiol.</i>	2	PATH 302	3
DENT 700 <i>Anes.</i>	1	DTHY 361 <i>Expanded Functions</i>	2
DTHY 301 <i>Public Health</i>	2	Cluster A	3
DTHY 360 <i>Dent. Materials</i>	3	DTHY 302 <i>Dent. Health Ed. (w)</i>	3
DTHY 370 <i>Clin. Methods</i>	2	DTHY 374 <i>Clin. Dent. Hy.</i>	2
DTHY 372 <i>Clin. Dent. Hy.</i>	2	DTHY 322 <i>Dental Radiology</i>	1
DTHY 380 <i>Rural Health</i>	2	Total	18
DTHY 166 <i>Dent Literature</i>	1		
Total	18		

Summer I or II

Rural Health 491	3
DTHY 293 <i>Clinic</i>	1
Total	4

Fourth Year

First Semester	Hrs.	Second Semester	Hrs.
DTHY 404 <i>Adv. Clin. Meth.</i>	1	DTHY 406 <i>Adv. Clin. DH</i>	3-4
DTHY 405 <i>Adv. Clin. DH</i>	4	DTHY 407 <i>Adv. Clin Meth</i>	1
DTHY 402 <i>Dent. Hy. Pract.</i>	2	DTHY 451 <i>Dent. Health Ed. III</i>	2
DH 490, 491, 493 Electives	2	DH 490, 491, 493 Electives	3
Cluster A	3	Cluster A	3
DTHY 450 <i>Dent. Hlth. Ed. II</i>	2	DTHY 494 <i>Clin Did. Sem.</i>	1
Total	14	Total	13-14

Advanced Education Programs

The Divisions of Dental Hygiene and Endodontics and the Departments of Orthodontics and Restorative Dentistry offer programs of advanced study leading to the degree of master of science (M.S.). The department of oral and maxillofacial surgery offers one four-year residency. Three general practice and two advanced education in general dentistry residencies are also offered. Continuing education courses are offered throughout the year. Detailed information concerning admission requirements, courses of study, etc., in these programs may be obtained from the Office of the Senior Associate Dean for Educational and Postdoctoral Affairs, WVU School of Dentistry, Morgantown, WV 26506.

Major in Dental Hygiene

Degree Offered

Master of Science

The School of Dentistry and its Division of Dental Hygiene offer a program of advanced study and specialized training leading to the degree of master of science. This program requires a minimum of 36 semester hours through full-time or part-time enrollment in the School of Dentistry. It is designed to qualify dental hygienists for careers in teaching, administration, research, and management.

Options for concurrent master's degrees in the areas of community health or health care administration are also available.

Inquiries concerning this program should be directed to the Office of the Senior Associate Dean for Educational and Postdoctoral Affairs, School of Dentistry. Applications should be filed by July 1 for fall admission and by October 15 for spring enrollment.

Admission Requirements

- Graduation with a baccalaureate degree in dental hygiene from an accredited dental hygiene program or graduation with 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.
- 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 2.75 is required.
- Completion of the Graduate Record Examination (GRE) general aptitude test, the last within five years, with minimum scores of 400 verbal and 350 analytical and quantitative and totaling 1100 or higher.
- Submission of all information requested in the graduate application to the Office of the Senior Associate Dean for Educational and Postdoctoral Affairs.

Degree Requirements

- Completion of a minimum of 36 semester credit hours: 21 required credit hours and 15 elective credit hours tailored to meet the student's personal and professional goals. Elective courses are taught by a number of schools within the University and are categorized into two basic focus areas: education/administration and special patient care. An individualized program will be devised for each student with a maximum of six hours in research leading to an acceptable thesis. Oral defense of the thesis is required.

- Achievement of a 3.0 GPA or an overall academic average of at least 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.
- Removal of all conditions, deficiencies, and incomplete grades. Credit hours for courses with a grade lower than C do not count toward degree requirements.

M.S. Curriculum	Credit Hrs.
ED P 311 <i>Statistical Methods</i>	3
ED P 330 <i>Foundations of Educational Measurement</i>	3
DTHY 380 <i>Seminar Critical Issues in Health Care</i>	3
DTHY 381 <i>Seminar Expanded Functions</i>	3
DTHY 391 <i>Computer Applications in Dentistry</i>	2
DENT 391 <i>Research Methods</i>	1
DTHY 397 <i>Research (Thesis)</i>	6
Total	21
Elective Area(s) of Dental Hygiene Focus	15
Dental Hygiene 391, Dentistry 391 courses, and courses offered by the Colleges of Business and Economics and Human Resources and Education, the School of Medicine's Department of Community Health Promotion, and the Multidisciplinary Studies program.	
Total	36

Specialization in Endodontics

Degree Offered

Master of Science

The School of Dentistry and its Division of Endodontics offer a program of advanced study and clinical training leading to the degree of master of science (M.S.). The program requires a minimum of 24 months (two 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, research, and board certification.

Inquiries concerning this program should be directed to the Office of the Senior Associate Dean for Educational and Postdoctoral Affairs. Applicants will be processed in the School of Dentistry. Applicants approved for admission to the program will be notified soon after December 1.

Admission Requirements

- Graduation from an accredited school of dentistry.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature.

Each applicant must file with the Division of Endodontics all information requested in the departmental application form.

Degree Requirements

- Fulfillment of general WVU graduate study requirements.
- Twenty-four months (two academic years and two summer sessions) of consecutive residency at the WVU School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to endodontics. A certificate will be awarded only upon satisfactory completion of the research and thesis.
- Satisfactory completion of a final oral examination.
- Completion of a minimum of 63 credit hours. These include 39 hours of endodontic courses, a minimum of 15 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis (seven hours).
- Demonstration of satisfactory clinical competency in the student's field.
- Achievement 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 two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

Specialization in Orthodontics

Degree Offered

Master of Science

The School of Dentistry and its Department of Orthodontics offer a program of advanced study and clinical training leading to the degree of master of science (M.S.). The program generally requires 36 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. Inquiries concerning this program should be directed to the office of the Office of the Senior Associate Dean for Educational and Postdoctoral Affairs or on our web site at www.hsc.wvu.edu/sod/orthodontics.html.

Admission Requirements

- Graduation from an accredited dental school.
- 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 for admission.
- Each applicant must file with the department all information requested in the department application form.

Degree Requirements

- Fulfillment of general WVU graduate study requirements.
- Thirty-six months (three academic years and two summers) of residency at the School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to orthodontics.
- Satisfactory passage of a final oral examination.
- Completion of a minimum of 74 credit hours. These include 46 hours of orthodontic courses, a minimum of 13 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis (13 hours).
- Demonstration of satisfactory clinical competence in the student's field.
- Achievement 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 two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

Prosthodontics

Keith E. Kinderknecht, D.M.D., Director
1180 Health Sciences North

Degree Offered

Master of Science

The School of Dentistry and its Department of Restorative Dentistry offers a three-year program of advanced study and clinical training in the dental specialty of prosthodontics. The program requires a minimum of 33 months (three academic years and two summers) leading to a certificate in prosthodontics and a master of science (M.S.) degree. The purpose of this program is to train well-qualified dentists in all aspects of prosthodontics and is designed to qualify them for careers in prosthodontic clinical practice, teaching, and research.

Inquiries concerning this program should be directed to the Office of the Senior Associate Dean for Educational and Postdoctoral Affairs. Completed applications are due by September 15 and those applicants approved for admission to the program will be notified by December 15.

Admission Requirements

- Graduation from an accredited US or Canadian dental school.
- 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 for admission.
- Each applicant must have on file all information requested in the School of Dentistry application form by September 15.

Degree Requirements

- Fulfillment of general WVU graduate study requirements.
- Thirty-three months three academic years and two summers of consecutive full-time advanced prosthodontic study and clinical training at the School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to prosthodontics.
- Satisfactory passage of a final oral examination.
- Completion of a minimum of 77 credit hours. This includes 49 credit hours of prosthodontic courses, a minimum of 13 credit hours of selected basic science subjects, two credit hours of teaching practicum, and 13 credit hours for completion of a master's thesis.
- Demonstration of satisfactory clinical competence in advanced prosthodontics.
- Achievement 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 two courses will require a faculty review of the student's progress. A third C or below will result in suspension of the student from the program.

Doctor of Dental Surgery (D.D.S.)

The profession of dentistry offers many career opportunities. In addition to the general practice of dentistry, specialty practice areas may be pursued by further study. The fields of dental education and research provide the opportunity for satisfying and interesting careers. Men and women entering the oral health care delivery system find that they play an important role in the exciting and challenging world of the modern health sciences.

Because of the large number of applicants and limited openings available, preference in admissions is given to qualified West Virginians, although outstanding nonresident applicants are considered. Nonresident applicants should have a grade-point average of 3.0 or above and an average score on the academic and PAT sections of the Dental Admission Test of at least 16. Economically or culturally disadvantaged students (especially if they are West Virginia residents) are encouraged to apply.

Admission Requirements

Admission to the WVU School of Dentistry is contingent upon satisfactory completion of all admission requirements, appropriate completion of all application instructions, submission of all transcripts from each college attended, personal interview, and 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).

Application for admission in the fall of 2002 should be made promptly upon completion of the 2000-2001 school year, even if the applicant has not completed all the requirements as listed.

A candidate for the D.D.S. degree must have abilities and skills of five varieties including observation, communication, motor, conceptual, integrative and quantitative, and 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. For further details consult the *WVU School of Dentistry Technical Standards Document* available in the School of Dentistry Office of Dental Admissions.

Applicants for admission must present evidence of having successfully completed three or more academic years of work in liberal arts in an accredited college. The prerequisites for admission include:

<i>Courses</i>	<i>Hrs.</i>
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

Courses in comparative anatomy, microbiology, embryology, and biochemistry are strongly recommended. In addition, courses in the humanities and the social sciences are suggested in order to acquire a broadened intellectual background for the study and practice of dentistry.

The School of Dentistry participates in the American Association of Dental Schools Application Service (AADSAS). All applications are processed by that organization. Applications may be submitted on-line or application request cards are available at the Office of Admissions and Records, 1170 Health Sciences North, P.O. Box 9815, Robert C. Byrd Health Sciences Center of WVU, Morgantown, WV 26506-9815. Request cards should be submitted to AADSAS as promptly as possible. The deadline for submission of a completed AADSAS application to the AADSAS office, for admission to the West Virginia University School of Dentistry, is January 15. This deadline is deliberately and explicitly discussed in the AADSAS instruction booklet; applicants should review it carefully. Because deadline dates are so important, you are strongly urged to give this part of the application procedure your strict attention.

Each applicant is required to complete the Dental Admission Test satisfactorily. This test is given at testing centers throughout the United States and its possessions, and in Canada. DAT scores must be submitted by November 1 of the year preceding the date of matriculation. Application cards may be obtained by writing to Division of Testing, Council on Dental Education, 211 E. Chicago Ave., Chicago, IL 60611.

Final acceptance of a student is contingent upon satisfactory completion of all requirements.

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

The basic required courses in the curriculum are presented throughout eight semesters and three summer sessions. During this time all students are enrolled in courses designed primarily to prepare them for the general practice of dentistry. Throughout the program overall student progress is continually monitored by the Academic Standards Committee. Upon satisfactory completion of the first semester of the third year, the student is provided the opportunity to indicate a specific interest in a fourth-year curriculum track. Available tracks are the general practice track, basic biologic science track, specific clinical interest track, and rural practice track. Upon satisfactory completion of the second semester of the third year, the faculty advisor and the student prepare a specific individualized curriculum for the fourth year. This aspect of the dental curriculum provides the opportunity for the student to pursue areas of special interest through the

appropriate track while continuing to develop competency in all clinical disciplines. In addition to the required courses, fourth-year students are required to register for at least one hour of electives during each semester.

At the present time, a number of state boards of dentistry require evidence of participation in continuing education for license renewal. In addition, a significant number of state associations require similar evidence for continued membership in good standing. Consequently, fourth-year electives provide the opportunity for students to pursue areas of special interest and, at the same time, they serve as a means of encouraging students to continue their education throughout their professional careers.

The individualized curriculum developed by the student and faculty advisor must be approved by the senior associate dean for educational programs. The student will pursue the approved curriculum through completion of the D.D.S. program. Additional requirements include participation in mock board examinations and a six-week of remote-site training by fourth-year students. Furthermore, students must satisfactorily complete all courses for which they have registered.

Promotion

At the end of each grading period (i.e., each academic semester or session) all students will have their individual progress reviewed by the academic standards committee convened for their class. The progress of each student in the curriculum is governed by a set of minimum acceptable performance standards upon which the academic standards committee bases its decisions.

The standards consist of three categories: scholastic performance, clinic 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 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.

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 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 Committee on Academic Standards and the dean.

School of Dentistry Course Schedule

First Year Didactic Courses	Hours	Sem. 1	Sem. 2	Summer
701 <i>Arts and Sciences of Dentistry</i>	1	x		
704 <i>Operative Dentistry</i>	4			x
705 <i>General Biochemistry</i>	5		x	
709 <i>Microanatomy and Organology</i>	5		x	
710 <i>Dental Anatomy and Occlusion</i>	5	x	x	
711 <i>Periodontics</i>	2			x
712 <i>Dental Materials</i>	3	x		
713 <i>Removable Prosthodontics</i>	4		x	
715 <i>Periodontics</i>	2		x	
717 <i>Removable Prosthodontics</i>	1		x	
718 <i>Oral Histology and Embryology</i>	2		x	
719 <i>Pediatric Dentistry</i>	1			x

	Hours	Sem. 1	Sem. 2	Summer
720 Community Dentistry	1	x		
724 Gross Anatomy	7	x		
745 Principles of Orthodontics	1			x
Second Year Didactic Courses				
700 Anesthesiology	1		x	
702 Microbiology	5	x		
703 Oral Diagnostic Techniques	2		x	
721 Endodontics	2		x	
722 Operative Dentistry	2	x		
723 Clinic Orientation	1	x	x	
725 Practice Management	1			x
726 Removable Prosthodontics	1	x		
727 Oral Radiology	1	x		
728 General Pathology	5	x	x	
729 Operative Dentistry	2		x	
731 Dental Anatomy and Occlusion	2			x
732 Periodontics	1			x
734 Removable Prosthodontics	2		x	
735 Pediatric Dentistry	2	x	x	
736 Fixed Prosthodontics	7	x	x	
737 Oral Diagnosis	1			x
738 Oral Pathology	3		x	
739 Oral Surgery	1		x	
740 Periodontics	1			x
741 Removable Prosthodontics	2			x
742 Periodontics	1		x	
743 Fundamentals of Physiology	5	x		
744 Diagnosis and Treatment Planning	1	x		
746 Orthodontic Technics	2			x
748 Operative Dentistry	1			x
754 Implantology	1			x
757 Fixed Prosthodontics	1			x
781 Patient Management	1			x
Second Year Clinical Courses				
776 Removable Prosthodontics	1-6			x
777 Periodontics	1-6			x
780 Endodontics	1-6			x
783 Operative Dentistry	1-6			x
784 Oral Surgery	1-6			x
786 Pediatric Dentistry	1-6			x
787 Clinical Oral Diagnosis	1-6			x
789 Fixed Prosthodontics	1-6			x
796 Clinical Oral Radiology	1-6			x
Third Year Didactic Courses				
730 Community Dentistry	1		x	
747 Management of Medical/Dental Emergencies	1		x	
750 Removable Prosthodontics	1	x		
751 Dental Anatomy and Occlusion	1		x	
752 Community Dentistry	2	x	x	
753 Oral Pathology	2	x		
757 Fixed Prosthodontics	2	x	x	
759 Oral Surgery	2	x	x	
760 Pharmacology	4	x		
761 Pediatric Dentistry	1	x		
763 Periodontics	2	x	x	

	Hours	Sem. 1	Sem. 2	Summer
765 Orthodontics	1		x	
766 Pediatric Dentistry	1		x	
769 Practice Management	1		x	
771 Practice Management	2	x		
774 Principles of Medicine	2	x		
Third Year Clinical Courses				
775 Practice Management	1-6	x	x	x
776 Removable Prosthodontics	1-6	x	x	x
777 Periodontics	1-6	x	x	x
780 Endodontics	1-6	x	x	x
781 Patient Management	1-6	x	x	x
783 Operative Dentistry	1-6	x	x	x
784 Oral Surgery	1-6	x	x	x
785 Orthodontics	1-6	x	x	x
786 Pediatric Dentistry	6	x	x	x
787 Clinical Oral Diagnosis	1-6	x	x	x
789 Fixed Prosthodontics	1-6	x	x	x
796 Clinical Oral Radiology	1-6	x	x	x
Fourth Year Didactic Courses				
756 Removable Prosthodontics	1	x		
758 Operative Dentistry	2		x	
762 Endodontics	1	x		
764 Pain and Anxiety Control	1	x		
778 Practice Management—Law	1	x		
779 Practice Management—Ethics	1		x	
Fourth Year Clinical Courses				
775 Practice Management	1-3	x	x	x
776 Removable Prosthodontics	1-6	x	x	x
777 Periodontics	1-5	x	x	x
780 Endodontics	1-4	x	x	x
781 Patient Management	1-6	x	x	x
783 Operative Dentistry	1-8	x	x	x
784 Oral Surgery	1-3	x	x	x
785 Orthodontics	1-6	x	x	x
787 Clinical Oral Diagnosis	1-6	x	x	x
789 Fixed Prosthodontics	1-6	x	x	x
791 Special Topics	1-15	x	x	x
794 Community Dentistry	1	x	x	x
796 Clinical Oral Radiology	1-6	x	x	x
Second Year Class				
738 Oral Pathology	5	x		
Third Year Class				
757 Fixed Prosthodontics	2	x	x	
792 Case Based Treatment Planning	1			x
Fourth Year Class				
755 Oral Pathology	1		x	
786 Pediatric Dentistry	1-6	x	x	
792 Cased Based Treatment Planning	1	x	x	

The relationship of the number of elective and/or required hours during the fourth year may vary, depending upon each student's progress.

School of Medicine

Robert M. D'Alessandri, M.D., Dean
Kevin A. Halbritter, M.D., Associate Dean, Hospital Affairs
James P. Griffith, M.D., Assistant Dean, Student Services,
Charleston Division
Anthony DiBartolomeo, M.D., Associate Dean, Student Services
and Academic Progress
Norman D. Ferrari, M.D., Associate Dean, Ambulatory Services
James K. Hackett, M.B.A., Associate Dean, Finance and Administration
Charles R. Craig, Ph.D., Interim Associate Dean, Research
and Graduate Studies
Michael J. Lewis, M.D., Ph.D., Associate Dean, Charleston Division
Mary Beth Mandich, Ph.D., Associate Dean for Professional and
Undergraduate Programs
James M. Shumway, Jr., M.D., Ph.D., Associate Dean, Medical Education
James Stevenson, M.D., Associate Dean, Development and
Continuing Medical Education
G. Anne Cather, M.D., Associate Dean, Student and Professional
Development Services
John E. Prescott, M.D., Associate Dean for Clinical Enterprise
www.hsc.wvu.edu/som

Degrees Offered

M.D., Doctor of Medicine
M.S., Ph.D. in Anatomy
M.S., Ph.D. in Biochemistry (Medical)
M.S., Ph.D. in Microbiology and Immunology
M.S., Ph.D. in Pharmacology and Toxicology
M.S., Ph.D. in Physiology (Medical)
B.S., M.S., Ph.D. in Exercise Physiology
B.S., M.S. in Medical Technology
M.S. in Community Health Promotion
M.O.T., Master of Occupational Therapy
M.P.H., Master of Public Health
M.P.T., Master of Physical Therapy

Historical Background

The West Virginia University School of Medicine started in 1902 as an affiliate with the College of Physicians and Surgeons of Baltimore. In 1912, the School of Medicine had its formal beginnings as an independent school offering the first two years of the basic sciences medical curriculum. The clinical years were completed at another institution. The School of Medicine moved to the current Robert C. Byrd Health Sciences Center in 1957 and inaugurated the four-year curriculum in 1960, which coincided with the opening of the 550-bed University Hospital.

In 1945, the School of Medicine began a course of study leading to a bachelor of science in medical technology. The first graduates were awarded a combined degree by the School of Medicine and the College of Arts and Sciences. The program of medical technology in the School of Medicine was established in 1961.

The Division of Physical Therapy accepted its first class in 1970. The division has recently inaugurated an entry-level master's degree program.

In 1972, the Charleston Area Medical Center became affiliated with West Virginia University. The Robert C. Byrd Health Sciences Center of West Virginia University's Charleston Division offers a variety of third- and fourth-year clerkships for medical students. Approximately one-third of each class goes to Charleston for the third and fourth years of medical education.

The Wheeling Division of the Robert C. Byrd Health Sciences Center of West Virginia University, established in 1974, offers a variety of elective opportunities for students in the fourth year.

In 1993, Exercise Physiology, Community Health Promotion, and Public Health were added to the list of programs in the School of Medicine. In 1996 the Occupational Therapy program was initiated.

Facilities

The Robert C. Byrd Health Sciences Center of West Virginia University has excellent clinical facilities. The Ruby Memorial Hospital offers the most sophisticated technology available, including magnetic resonance imagery, lithotripsy, laser surgery, and the necessary support technology. The Ruby Memorial Hospital also houses the Jon Michael Moore Trauma Center and the WVU Children's Hospital. Chestnut Ridge Hospital treats the entire spectrum of psychiatric and behavioral problems. The Mary Babb Randolph Cancer Center, completed in 1990, provides a facility totally dedicated to the diagnosis and treatment of cancer. Dedicated research and teaching space allows outstanding cancer scientists to work toward the goals of prevention and cure. Areas of cellular biology, immunology, monoclonal antibody, gene tracking, and recombination research are ongoing at the Cancer Center. The Physician's Office Center, an ambulatory care facility built by a faculty practice plan, opened in 1990. In 1996, the Positron Emission Tomography (PET) Center and cyclotron became operational for specialized diagnostic procedures and research. The Clark K. Sleeth Family Medicine Center opened new facilities in 1999.

Healthsouth Mountainview Regional Rehabilitation Hospital, a 60-bed inpatient center, offers students the opportunity to investigate rehabilitative and physical medicine as a career. The Department of Human Performance and Applied Exercise Science has recently evolved to incorporate exercise physiology, physical therapy, and occupational therapy, which complement all of the other existing programs.

Departments and Comittees

Departments and Fields

Anatomy
Anesthesiology
Behavioral Medicine and Psychiatry
Biochemistry
Community Medicine
Emergency Medicine
Family Medicine
Human Performance and
 Applied Exercise Science
Medicine
Microbiology and Immunology
Neurology
Neurosurgery
Obstetrics and Gynecology
Ophthalmology
Orthopedic Surgery
Otolaryngology
Pathology
Pediatrics
Pharmacology and Toxicology
Physiology
Radiology
Surgery
Urology

Chairs

Richard D. Dey, Ph.D. *Interim*
Robert E. Johnstone, M.D.
James M. Stevenson, M.D.
Diana S. Beattie, Ph.D.
Alan Ducatman, M.D.
Ann S. Chinnis, M.D. *Interim*
Charles H. M. Jacques, M.D.

Mary Beth Mandich, Ph.D.
James E. Brick, M.D.
John B. Barnett, Ph.D.
John F. Brick, M.D.
Julian E. Bailes, M.D.
Mark Gibson, M.D.
John V. Linberg, M.D.
J. David Blaha, M.D.
Stephen J. Wetmore, M.D.
Anthony DiBartolomeo, M.D. *Interim*
Bonia Santon, M.D.
Robert E. Stitzel, Ph.D. *Interim*
Robert L. Goodman, Ph.D.
Mathias P. Frick, M.D.
David McFadden, M.D.
Donald L. Lamm, M.D.

Committees

Academic Standards
Research Development Grant Committee
Curriculum Committee
Executive Faculty
Faculty Promotion and Tenure
Student Leadership
Admissions Committee, M.D. Degree
E. J. Van Liere Student Research Convocation
Continuing Medical Education
Admissions Committee/Medical Technology
Admissions Committee/Physical Therapy
Committee on Women's Issues
Distinguished Teacher Committee
Coordinating Counsel on Graduate Medical Education
Admissions Committee/Occupational Therapy
High School Summer Research Program
Clinical Research

Chairs

Gunter N. Franz
William F. Wonderlin
C. Larry Harris
Robert M. D'Alessandri
Michael Miller
Robert M. D'Alessandri
Renee Moore
Jeannie S. Strobl
James M. Stevenson
Mary Ellen Koenn
Trevor Swan
Janet Williams
Donald C. Fidler
Anthony DiBartolomeo
Diana Middleton
Valerie K. Lemasters
Bonita Stanton

Graduate Programs in Basic Sciences

Charles R. Craig, Ph.D., Chair, Health Sciences Graduate Council

Nature of Program

Graduate degrees are offered by the School of Medicine in the departments of anatomy, biochemistry, pathology (medical technology), microbiology and immunology, pharmacology and toxicology, and physiology. Brief guidelines and descriptions of these programs begin below. For more detailed presentation of graduate programs, as well as the policies and rules governing graduate education, the *West Virginia University Graduate Catalog* should be consulted.

Anatomy

Richard D. Dey, Ph.D., Interim Chair
Adrienne K. Salm, Ph.D., Graduate Coordinator

Degrees Offered

Master of Science, Doctor of Philosophy

General Description

The Department of Anatomy graduate program is committed to training researchers and teachers. The program emphasizes various aspects of biomedical sciences, including structural, cellular, molecular, and developmental biology. After completion of core courses, students conduct an original research project culminating in a dissertation (Ph.D.) or a thesis (M.S.).

Interdisciplinary research projects in the department 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.
- Development of synaptic connections in the neocortex.
- Neural basis of pulmonary diseases, especially asthma and occupational/environmental diseases.
- Cellular and molecular mechanisms regulating microcirculation under pathophysiological conditions.

- Molecular mechanisms of cancer development.
- Molecular mechanisms of neural development.
- Effects of prenatal stress on brain development.
- Mechanisms of structural plasticity in the nervous system.
- Functional imaging of the human brain.

Prerequisites

Candidates must hold a bachelor's or master's degree. A strong background in biological sciences, inorganic and organic chemistry, physics, and mathematics is required. Under special circumstances, some course requirements may be fulfilled after admission to the program. A grade-point average above 3.0 is recommended. The aptitude portion of the GRE is required and an advanced section, usually biology, is recommended.

Admission

In addition to the University admission procedures, the Department of Anatomy requires applicants to complete a departmental application. Also, three letters of recommendation evaluating the applicant's potential for graduate study must be separately mailed to the Department of Anatomy. Applicants desiring consideration for financial aid should complete the application process as early as possible. Recipients of departmental stipends (teaching assistantships) must participate in laboratory teaching to professional students.

Course Requirements

The first two years of study consist of coursework and introduction to research in two departmental laboratories. Completion of the two-semester interdepartmental course in molecular and cellular biochemistry and two courses in either gross anatomy, neurobiology, or microscopic anatomy are required. The selection of other courses in basic biomedical sciences (such as advanced molecular biology, advanced biochemistry, anatomy, neurobiology, pathology, immunology, virology, physiology, pharmacology, biostatistics, etc.) allows substantial flexibility and is tailored to the individual student's interests and research needs. Additional electives are selected by the student in consultation with a major advisor and an advisory committee. Students must maintain a minimum 3.0 overall grade-point average. Students develop skills in reading, critical thinking, and scientific analysis by participating in departmental seminars and journal clubs.

Doctor of Philosophy Degree

The program is designed to complete the requirements for the Ph.D. degree in four or five years. To be admitted to candidacy for the Ph.D. degree, students must pass a preliminary examination which is administered near the end of the second year of the program. In addition, a plan for the research project to be undertaken for the dissertation must be presented to the candidate's advisory committee and approved. To complete the degree, the student must satisfactorily execute the proposed research project, publicly defend a dissertation based on this research, and pass the final examination by the candidate's advisory committee. Success in dissertation research is the core of the degree.

Master of Science

An applicant who shows a special need for the M.S. degree must generally be as well qualified as applicants to the doctoral program. The M.S. student must complete a minimum of 27 hours of required and elective courses selected by the student in consultation with a major advisor and research committee. A 2.75 grade-point average must be maintained. In addition to coursework, students must complete a thesis based on original research and defend the thesis at an oral comprehensive examination before the candidate's advisory committee.

Biochemistry

Diana S. Beattie, Ph.D., Chair

Lisa Salati, Ph.D., Graduate Coordinator

Degrees Offered

Master of Science, Doctor of Philosophy

Graduate programs in the Department of Biochemistry are designed to assist students in the development of their own capabilities for independent thought and research. All students are provided with a strong biochemistry background; however, the program has sufficient flexibility to allow individual students to select advanced specialty courses in biochemistry which are of particular importance to their career goals. Faculty research problems are of current interest and are diverse, reflecting the broad spectrum of areas encompassing biochemistry.

Admission Requirements

A prospective graduate student should hold a bachelor's degree with a science major and should have successfully completed courses in organic chemistry, calculus, physics, biology, and physical chemistry. In some cases, a deficiency in the above may be made up after admission into the program.

Application is made by submission of the following items to the Department of Biochemistry:

- The completed departmental application form (sent on request).
- Three letters of recommendation from professors who can evaluate the student's present abilities and potential.
- Official transcript of the applicant's college grades.
- Official copy of Graduate Record Examination scores.

Owing to the sequence of courses, entrance in the fall is preferred, but exceptions may be made as necessary. Application materials and program details may be obtained by writing the Graduate Coordinator, Department of Biochemistry, School of Medicine, P.O. Box 9142, West Virginia University, Morgantown, WV 26506-9142. The deadline for receipt of applications and supporting documents by the department is April 1. To be considered for financial support, applications should be submitted by January 15.

Doctor of Philosophy

To assure that all students become familiar with the basic principles of biochemistry, the first year of the doctor of philosophy (Ph.D.) program is devoted primarily to coursework. In addition to formal courses during the first semester, students participate in a laboratory program that involves all faculty members. This laboratory experience is designed to illustrate the basic research skills involved in biochemistry. Students will begin the first of three longer research experiences culminating in a choice of laboratory for their dissertation research.

Upon successful completion of the first year, students will choose a dissertation research advisor, at which time emphasis will be placed on research. During the second year, specialized courses in biochemistry will be offered as the students continue their research programs. During subsequent years, the students emphasize independent thesis research and a few formal courses are taken.

An essential component of the Ph.D. program is participation in departmental journal clubs and seminars. Both students and faculty participate; thus, students learn to organize effectively and present research material to large groups of people.

Completion of the Ph.D. program is realized when the student successfully presents the research results to both the Department of Biochemistry and a graduate advisory committee. Typically, five years are required to realize this goal.

Master of Science

The Department of Biochemistry offers the thesis master's degree. This program involves completion of a master's research project in addition to formal coursework. Two to three years are generally required to complete the M.S. program.

Research

Research being conducted in the department includes: hormonal regulation of metabolism; regulation of gene expression; RNA processing; structure and function of nucleic acids; chemistry of enzymes and serum proteins; biogenesis of membranes; membrane molecular biophysics; and developmental biology of the eye.

Microbiology and Immunology

John B. Barnett, Ph.D., Chair

Christopher Cuff, Ph.D., Vice-chair

James Sheil, Ph.D., Graduate Coordinator

Degrees Offered

Master of Science, Doctor of Philosophy

The Department of Microbiology and Immunology offers programs of study leading to the degrees of master of science (M.S.) and doctor of philosophy (Ph.D.) in microbiology and immunology. Students with an undergraduate degree can apply to either the M.S. or Ph.D. program. The major purpose of graduate education in the department is research training. The basic philosophy of the department is that the students have a strong foundation in basic concepts of microbiology and immunology and flexibility in choosing advanced coursework in their specific areas of interest. A major emphasis of the graduate program is extensive laboratory research in microbiology and immunology. Each student will complete an original, in-depth research investigation. The overall aim of the program is to produce students capable of designing and doing independent research and teaching.

Admission Requirements

Applicants to either the Ph.D. or M.S. graduate programs in microbiology and immunology should have had at least four upper-level courses in the biological sciences, two semesters of organic chemistry, two semesters of physics, and a strong background in mathematics (including calculus) in order to be considered for admission. Applicants must submit a departmental application form, three letters of recommendation, and general Graduate Record Examination (GRE) scores to the Graduate Coordinator, Department of Microbiology and Immunology, P.O. Box 9177, School of Medicine, West Virginia University, Morgantown, WV 26506-9177. In addition, transcripts and an official application for admission must be sent directly to the WVU Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506-6009. Applicants for admission to a degree program should have a grade-point average of 3.0 or better and must take the general GRE. GRE scores are used as one of several selection criteria for admission to the department's graduate program. Although no minimum score is required for selection, successful applicants usually have a combined score of 1500 or greater on the general GRE. International students must have a TOEFL score of at least 550 by paper exam or 260 by computer exam. Early application is encouraged. Applicants desiring financial aid should complete their application before March 1. All applications must be completed by June 1 for fall admission. No mid-year admissions are made.

Program Requirements

Master of Science

Every student must take the following courses or demonstrate proficiency by examination in each of the following areas: MBIM 784A, 784B, and 784C *Graduate Microbiology, Immunology, Virology*; BIOC 693D, *Cellular and Molecular Biochemistry I and II* (offered by the Department of Biochemistry); and MBIM 691 *Advanced Topics* (laboratory rotations). The remainder of the coursework is selected by the student and the advisory committee from the Microbiology and Immunology advanced study courses (MBIM 791). Enrollment in MBIM 796 *Seminar* and MBIM 793 *Special Topics* (journal club) is required each semester that the student is in residence. All full-time students in the

Department of Microbiology and Immunology are required to participate in teaching at least one semester a year for two years (MBIM 790 *Teaching Practicum*).

The master of science program requires 30 hours of coursework, of which at least 20 hours must be in microbiology and immunology. Six hours must be in research (MBIM 697). A grade-point average of at least 3.0 must be maintained. A thesis representing original research and a final oral examination are required.

Doctor of Philosophy

Students with either a bachelor's or master's degree can apply to the Ph.D. program. Those with a bachelor's degree must complete the basic course requirements expected of an M.S. candidate. The doctoral candidate with an M.S. degree from another department must have had coursework or demonstrate knowledge in microbiology, immunology, and biochemistry equivalent to that of a master's student in the department. In addition, the doctoral student will take additional coursework as determined by the student's graduate research advisory committee. A minimum of nine hours in MBIM 791 courses or selected advanced courses from other departments is required. Where appropriate, coursework in related subjects such as computer science, cell biology, biochemistry, physical chemistry, and statistics will be required. MBIM 796 *Seminar* is a required course each semester that the student is in residence. The student will maintain a grade-point average of 3.0. The doctor of philosophy program requires a dissertation representing the results of an original research investigation and the passing of a written qualifying and final oral examination. The qualifying examination is given at the end of the first year of study. The final oral examination is given after completion of research and an acceptable dissertation. All full-time students are required to participate in teaching at least one semester a year for two years.

The Department of Microbiology and Immunology has informal journal clubs in immunology and microbiology. These are designed to help the students develop skills in reading, interpreting, and discussing current research articles. All students are expected to participate in one or more.

For application materials, a description of faculty research interests, guidelines for graduate study in the Department of Microbiology and Immunology, or additional information, write to the Chairperson, Admissions and Scholarship Committee, Department of Microbiology and Immunology, P.O. Box 9177, West Virginia University, Morgantown, WV 26506-9177, or visit our website at www.hsc.wvu.edu/micro/.

Research

Cell Biology: oncogenes and cell signalling.

Genetics: basic studies in the mechanisms of genetics including transfer of genetic information; recombinant DNA studies.

Immunology: immunopathology of pulmonary disease and microbial inhalants; developmental immunology; mechanisms of T cell function; immunogenetics; immunotoxicology; mucosal immunology; immunology of infectious microbes.

Mycology: pathobiology of medical mycoses; antibiotic susceptibility testing; environmental health implications of fungal and algal toxicoses.

Parasitology: host parasite relationships between helminths and insects with vertebrate hosts; protozoan endosymbionts.

Pathogenic Bacteriology: mode of action of microbial products in pathogenicity; ecology of clinical microbiology; antibiotic mode of action; immunomodulation of cystic fibrosis.

Physiology: nutrition and metabolism of a variety of pathogenic microorganisms; growth and protein synthesis of intracellular bacteria.

Virology: retroviral recombination, oncogene transduction, and human gene therapy.

Pharmacology and Toxicology

Robert E. Stitzel, Ph.D., Interim Chair

Stephen G. Graber, Ph.D., Graduate Coordinator

Degrees Offered

Master of Science, Doctor of Philosophy

Pharmacology and toxicology involves all aspects of the action of drugs on living systems and their constituent parts. These range from the chemical reactions taking place within cells to the evaluation of a drug in the treatment of human disease. The Department of Pharmacology and Toxicology offers graduate studies leading to the degrees of master of science and doctor of philosophy, with research concentrations in such areas as autonomic pharmacology, biochemical pharmacology, neuropharmacology, molecular pharmacology, cardiovascular pharmacology, endocrine pharmacology, ion-channel pharmacology, malarial chemotherapy, signal transduction, and renal, hepatic, and pulmonary toxicology.

Admissions Requirements

Regular applicants for the graduate program in pharmacology and toxicology should present, as a minimum, the following undergraduate courses: one semester of biology; two semesters of physics; one semester of calculus; and four semesters of chemistry including two semesters of organic chemistry. Three letters of recommendation from science professors, an official transcript, and the results of the Graduate Record Examination are also required. The prospective student should have a minimum 3.0 overall grade-point average at the undergraduate level.

In general, students requesting financial support should have all credentials forwarded by February 1. For additional information write to the Graduate Coordinator, Department of Pharmacology and Toxicology, P.O. Box 9223, WVU Health Sciences Center, Morgantown, WV 26506-9223.

Master of Science

Ordinarily the department does not accept graduate students solely into a master's program. However, the master's degree is offered and is available as an intermediate degree en route to the Ph.D. Its primary function, as viewed by the faculty, is as an aid to the student new to research for the formulation, conduct, and writing of an abbreviated, but complete, independent research project (thesis). The coursework requirements for the M.S. in pharmacology and toxicology usually consist of Physiology 344 and 345, graduate biochemistry, Statistics 311, and Pharmacology and Toxicology 361, 364, 461, 462, and 497. Most students may, with the faculty's concurrence, choose to proceed directly with their doctoral research without a master's degree. These students must submit a comprehensive progress report on their research in lieu of a thesis.

Master's committees will consist of no fewer than three members with no more than one from outside the department, the majority of which will be regular members of the graduate faculty including the chairperson. No more than one person may be a non-member of the graduate faculty.

Doctor of Philosophy

Before official admission to candidacy for the doctorate, students must satisfactorily complete a grant-writing exercise, an acceptable progress report, and an oral comprehensive qualifying examination. When a student has submitted a grant proposal, a committee—ordinarily consisting of at least three members of the Department of Pharmacology and Toxicology and two members from outside the department—is appointed and constitutes the oral examining body. The oral qualifying examination is administered in January of the student's third year in the program.

Dissertation

Upon admission to candidacy for the degree of doctor of philosophy, the candidate must select a topic for the dissertation under the direction of the candidate's advisor, complete a dissertation which makes a contribution to knowledge in the candidate's area of concentration, and pass an oral examination based primarily upon the dissertation. After successful completion of the oral examination and submission of the final copy of the dissertation, the candidate will be recommended for the degree.

Research Areas

Autonomic pharmacology: autonomic regulation of the cardiovascular system and of smooth muscle; sensitivity to neurotransmitters; electrophysiologic studies of cardiac and smooth muscle; receptors and second messengers.

Chemotherapy: antimalarial agents, role of ion channels in tumor development, effects of pharmacological agents on single-cell organisms.

Biochemical pharmacology: drug metabolism, signal transduction, receptor structure and function.

Endocrine pharmacology: molecular mechanism of action of steroids, metabolism of sex accessory tissues, relationship of hormones to tumor growth and development.

Neuropharmacology: biochemical and electrophysiological basis of epilepsy, neuromediators in the central nervous system, mechanisms of signal transduction, ion-channel pharmacology.

Toxicology: metabolism of toxic agents, pulmonary toxicology, renal toxicology, environmental toxicology, perinatal pharmacology, and toxicology.

Physiology (Medical)

JohnConnors,Ph.D.,GraduateCoordinator

Degrees Offered

Master of Science, Doctor of Philosophy

The Ph.D. program is designed to produce physiologists of high quality, capable of conducting independent research and being effective teachers. Students in our department are exposed to all aspects of physiology and a variety of related sciences. The master's program is designed as an introduction to research in physiology for students interested in, but not yet committed to, a research career. Students in this program receive training in the fundamentals of physiology and experience in a research laboratory.

Admission Requirements

Applicants should have a strong background in biology and/or chemistry. In addition to a basic biology course, inorganic and organic chemistry are required. Because several areas of physiology require an understanding of the fundamentals of calculus and physics, introductory courses in these subjects are also essential. It is strongly recommended that applicants have taken biochemistry cellular or molecular biology and an introductory physiology course. Physical chemistry is recommended but not required.

The department requires the following materials for consideration for the M.S. or Ph.D. program: three letters of recommendation; transcripts of all undergraduate and graduate grades; a completed departmental application form; and Graduate Record Examination scores (general test). Students from non-English speaking countries also need a Test of English as a Foreign Language (TOEFL) score in excess of 550. A bachelor's degree or equivalent is required for admission; an M.S. degree is not a prerequisite for the Ph.D. program.

A complete application kit and detailed descriptions of the degree programs can be obtained by writing to the Graduate Coordinator, Department of Physiology, P.O. Box 9229, School of Medicine, West Virginia University, Morgantown, WV 26506-9229. Although applications may be submitted as late as May of the year of matriculation, applications must be received before March 1 to be considered for financial aid.

Master of Science

Prerequisites for admission to the master's program are the same as those for the doctoral program. The first two semesters are devoted largely to coursework in physiology: twelve hours of physiology, three hours of neurophysiology, and eight hours of physiological methods. A two-semester course in cellular and molecular biochemistry is also required. Students are introduced to the research interests of the faculty through the graduate colloquium and rotations in some faculty members' laboratories. By the end of the second semester, students will have picked a thesis advisor and will begin work in that laboratory during the summer. The second year is spent primarily on research for and writing of the master's thesis. Students are required to take four hours of advanced physiology and present a research seminar during the second year.

Doctor of Philosophy

The first-year curriculum familiarizes the student with the basic information and principles that form a background for advanced work in physiology. Much of this overlaps with the basic science material presented to medical students so that all students attend several medical school courses, including physiology and neurophysiology. A two-semester cellular and molecular biochemistry course is also required.

In addition to this coursework, students are introduced to the research interests of the physiology faculty through the graduate colloquium and rotations in some faculty members' laboratories. The latter are designed to help students choose a dissertation advisor by exposing them to the experimental approaches and techniques used in different laboratories within the department.

During the first summer, students are expected to begin research projects in a departmental research laboratory of their choice. This allows a student to explore an area of research interest and to develop a working relationship with a faculty member without a firm commitment to pursue a dissertation project in that laboratory.

During the second year, the student combines coursework with the continuing development of research interests. A graduate advisor is selected during this year. Courses include: advanced physiology (12 hours), graduate colloquium (two hours), graduate seminar (one hour), a teaching practicum (two hours), and research (nine hours).

The second-year curriculum takes the student beyond the medical curriculum, emphasizing critical appraisal of the current research literature. In addition, the student begins to develop his/her teaching skills. The purposes of the graduate colloquium and seminar are twofold. First, they give students an opportunity to become informed of the latest scientific advances. Secondly, students have an opportunity to develop and practice presentation of research seminars. In addition to presentations by faculty and students from the Department of Physiology, faculty members from other departments at WVU and from other institutions are invited to present seminars in the program.

After successful completion of the second academic year, the student takes a two-part qualifying examination. The qualifying examination consists of a comprehensive written examination covering all of the major areas of physiology, followed by a written and oral research design examination. Upon successful completion of the qualifying examination, the student is admitted to candidacy for the degree of doctor of philosophy.

During the third and fourth years, the student may enroll in elective courses. Yearly participation in the teaching practicum provides additional experience in delivering lectures to undergraduate and professional students. However, the student's major effort is directed toward dissertation research. Results of this effort are presented annually in the graduate colloquium. During these years the student will attend and present papers at national meetings of scientific societies (e.g., American Physiological Society, Biophysical Society, Endocrine Society, Experimental Biology, Society for Neurosciences). The Ph.D. degree generally can be completed in four or five years.

Research and Instruction

Research areas: Faculty laboratories offer opportunities for research in cardiovascular, cell, endocrine, muscle, neural, renal, and respiratory physiology.

Medicine

www.hsc.wvu.edu

www.hsc.wvu.edu/som/students

Degree Offered

Doctor of Medicine

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./Ph.D. program is available to those students who show exceptional interest and scholarly promise. All admission requirements of the School of Medicine and the specific graduate program apply. Students apply for the combined degree program after acceptance into medical school. An M.D./M.P.H. program is available for those interested in public health issues.

It is to be understood that 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 the *Health Sciences Center Catalog*.

Accreditation

The West Virginia University School of Medicine is accredited by the Liaison Committee on Medical Education (LCME).

Admission Requirements

The student preparing for any career in the health professions must have a keen interest in the sciences. Science courses taken in high school should include as many biology, chemistry, and physics courses as possible. A good background in mathematics is strongly recommended.

The following courses are required for consideration of an application to medical school:

English	6 semester hours or equiv.
Biological sciences (with lab)	8 semester hours or equiv.
Inorganic chemistry (with lab)	8 semester hours or equiv.
Organic chemistry (with lab)	8 semester hours or equiv.
Physics (with lab)	8 semester hours or equiv.
Social or behavioral sciences	6 semester hours or equiv.

Biochemistry and cell biology are strongly recommended. A total of 90 semester hours, exclusive of ROTC and general physical education, is required. Computer skills are required. All required courses must be passed with a grade of C or better.

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. The practice of repeating courses to raise the grade is discouraged. Applicants who have been subject to suspension from West Virginia University or other medical schools can be admitted only in very exceptional cases and at the discretion of the admissions committee.

Pre-Admission Tests

The scores of the Medical College Admissions Test (MCAT) are one of the factors used by the admissions committee in considering an applicant for admission. The MCAT must be taken within two years of applying to medical school. It is recommended that students take the MCAT during the spring of their junior year in college. This allows for a repeat examination in the fall if necessary. Waiting until fall to take the test could jeopardize an applicant's opportunity since no application for admission is given final consideration until MCAT scores are received by the admissions committee. The MCAT score must be recorded prior to closing of admissions on November 15.

Information concerning the time and place of the test can be obtained from your premedical advisor, admissions committee, or the Office of Admissions and Records.

Application Procedure

The admission process is initiated by completing the American Medical College Application Service (AMCAS) forms. AMCAS packets may be obtained from the Office of Admissions and Records of the West Virginia University Health Sciences Center, or through most pre-professional advising offices.

Application for admission in August 2002 should be made at the end of the 2000-2001 school year. The last date for filing an application is November 15. 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. No 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.

No applicant is admitted before an interview by the Admissions Committee. All qualified residents of West Virginia are granted an interview. Qualified nonresident applicants are interviewed at the discretion of the admissions committee. Residency status is determined by the Board of Trustees Policy Bulletin #36. Interviews and consideration of applicants begin in September.

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 offered 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 is 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.

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 in the Office of Student Services in the School of Medicine, and on the student services web site.

Prior to entering medical school, all students must complete certain prescribed immunization and diagnostic procedures. Personal health insurance is required.

Promotion and Graduation Requirements Evaluation of Student Progress

Promotion of a student in the M.D. degree program is evaluated in three 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, and 3) successful fulfillment of the professional standards of the School of Medicine.

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 West Virginia University School of Medicine. Copies are available through the Office of Student Services and on the student services web site. 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 or repetition of all or a portion of the curriculum. Exceptions may be made only on 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.

It is the policy of the School of Medicine that the departments conduct examinations to help in the overall evaluation of student progress. In addition to the departmental examinations, other examinations may be conducted for other purposes. At the end of each year a comprehensive examination, designed on an interdepartmental basis, may be required as a test of readiness for promotion.

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 unsatisfactory (U) grade has been received in a required course. Such an unusual 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), satisfactory (S), or unsatisfactory (U) at the completion of the course in lieu of other letter grades. The H, S, and U 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 Office of Student and Curricular Affairs. A grade of U shall be regarded as a failing grade and all University regulations regarding a failed course shall apply.

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 (unsatisfactory) 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 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. School of Medicine policy limits a student 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 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 nondisciplinary matters are governed by the concept of academic due process.

Upon concurrent recommendation of the Admissions Committee, the Committee on Academic and Professional Standards, and the departments concerned, a limited number of students may be admitted to the School of Medicine to follow a special schedule reflecting the student's individual needs to complete requirements for the M.D. degree.

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. In all other matters, due process principles shall apply. 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 Office of Student Services, and on the Student Services web site.

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 for record, the Office of Student Services, School of Medicine.

Interruption of academic work must be approved by the Office of Student and Curricular Affairs.

Curriculum

The field of medicine is rapidly changing. The following curriculum outline is the plan that is presently in place. However, the medical school curriculum at West Virginia University will change as needs dictate.

Medicine

All students of the Health Sciences Center are required to perform community service as a component of their curriculum. Medical students must complete 100 hours of community service prior to graduation.

A Changed Medical Education Program of Study

The medical education curriculum has been totally revamped—starting with the first year. The most significant changes are: 1) the academic year has been increased from 32 weeks to 38 weeks; 2) students will begin clinical experiences early in their first year of medical school; 3) the basic science disciplines have been integrated into modules oriented around function, structure, and neuroscience; 4) the basic science modules (blocks) will run contiguously and not be in competition with each other as in the past; and 5) incoming medical students will be required to lease a windows-based laptop to use in the new curriculum that will incorporate information and academic technologies in the delivery of instruction.

With these principles in mind, the old semester (college-like) schedule of the first year, for example, physiology, gross anatomy, biochemistry, neurobiology, microanatomy, epidemiology, and psychiatry have been replaced. Now there are three blocks of basic science (human function, human structure, and neuroscience) along with two other courses—patient-centered health care and introduction to the patient, running concurrently for the entire year.

First Year

The following is a brief description of the curriculum in the first year:

Medical students' first year: thirty-eight week academic year divided into three blocks (16 weeks, 15 weeks, and seven weeks). Approximately 24 scheduled hours per week. Each block contains three courses: a basic science multidisciplinary course, patient-centered health care (2.5 hours per week with half of that time being spent in small group), and physical diagnosis and clinical integration (two hours large group per week alternating every other week with small groups). While patient-centered health care and physical diagnosis and clinical integration run throughout the year, the basic science component changes each block. First block (16 weeks) contains a multidisciplinary run course: human function (physiology, biochemistry, and genetics: 12 hours large group, six hours small group per week). Second block (15 weeks) consists of human structure (seven gross anatomy and microanatomy: seven hours large group, 11 hours laboratory). Third block (seven weeks) consists of multidisciplinary neuroscience (10 hours large group, eight hours laboratory and small group). A weekly problem-based learning group (PBL) is maintained throughout the year.

Second Year

The following is a brief description of the curriculum in the second year.

Medical students' second year: thirty-four week academic year divided into three blocks (ten weeks, 16 weeks, eight weeks). Approximately 26 scheduled hours per week. Each block contains three courses: a basic science multidisciplinary course, physical diagnosis and clinical integration (four hours per week), and evidence-based medicine or ethics (2.5 hours per week). Physical diagnosis and clinical integration runs throughout the year; the basic science component changes each block. The first block (ten weeks) is a single course integrating microbiology and immunology (18 hours per week). The second block (16 weeks) consists of mechanisms of disease (pathology: 18 hours per week), and the third block (eight weeks) consists of medical pharmacology (18 hours per week). Problem-based learning is used throughout the year to provide a clinical orientation to these medically important basic science blocks.

Clinical Years

The last two years of study take place in the clinics and hospitals where students have the opportunity to help diagnose and treat patients under supervision of the full-time 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. 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.

Approximately one-third of each class is selected during their first year to spend the third and fourth year at the Charleston Division of the Robert C. Byrd Health Sciences Center of West Virginia University.

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. The courses selected are subject to the approval of an associate dean in the Office of Student Services.

Five months of the senior year are committed to required clerkships which include one month in internal medicine, family medicine, or pediatric sub-Internship; one month in critical care/anesthesia; one month of surgery or surgical sub-specialties; and two months of rural primary care. The remaining five months of the senior year is elective.

Four months of the senior year must be spent at clinical sites on the campuses at Morgantown and Charleston, or at approved teaching sites throughout West Virginia. A catalog is available on the web that lists the approved electives and selection guidelines at www.wvu.edu/ms4catalog/.

Students interested in other extramural opportunities are advised to consult with the fourth-year curriculum coordinator in the Office of Student Services. 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.

Every fourth-year student has the opportunity for two weeks of vacation. The student may alternatively choose a clinical exercise for vacation time.

Medicine I

Hrs. -wk.	Module 1 (16 wks.)	Module 2 (15 wks.)	Module 3 (7 wks.)	Hrs. -wk.	
1	I N F O R M A T I O N	CCMD 330	ANAT	CCMD 375	1
2		Human Function	Human Structure	Neurobiology	2
3					3
4					4
5		Integrated:	Integrated:	Integrated:	5
6		Biochemistry,	Gross Anatomy,	Neuro-	6
7		Physiology,	Histology,	-Anatomy,	7
8		Genetics	Embryology	-Physiology	8
9					9
10					10
11					11
12		(18 hrs./wk.)	(18 hrs./wk.)	(18 hrs./wk.)	12
13					13
14					14
15	-----	-----	-----	15	
16	T E C H N O L O G Y	Problem Based Learning	(1.5 hrs./wk.)	16	
17				17	
18				18	
19				19	
20		CCMD 340		20	
21		Patient Centered Health Care	(2.5 hrs./wk.)	21	
22				22	
23				23	
24		CCMD 345		24	
25		Physical Diagnosis and Clinical Integration 1	(2 hrs./wk.)	25	
26				26	
27				27	
28				28	

Medicine II

Hrs. -wk.	Module 1 (10 wks.)	Module 2 (16 wks.)	Module 3 (8 wks.)	Hrs. -wk.	
1	I N F O R M A T I O N	CCMD 380	PATH 351	PCOL 361	1
2		Immunity, Infection, and Disease	Mechanisms of Disease	Medical Pharmacology	2
3					3
4					4
5		Integrated:	Pathology	Pharmacology and	5
6		Microbiology,	(18 hrs./wk.)	Toxicology	6
7		Immunology,			7
8		Pharmacology			8
9					9
10					10
11				(18 hrs./wk.)	11
12					12
13					13
14		(18 hrs./wk.)			14
15	-----	-----	-----	15	
16	T E C H N O L O G Y	Problem Based Learning	(1.5 hrs./wk.)	16	
17				17	
18					18
19				19	
20		CCMD 390	CCMD 391	20	
21		Evidence Based Medicine	Ethics	21	
22		(2.5 hrs./wk.)	(1.5 hrs./wk.)	22	
23				23	
24		CCMD 395		24	
25		Physical Diagnosis and Clinical Integration 2		25	
26		(4 hrs./wk.)		26	
27				27	
28				28	

Medicine III Clerkships

Weeks

8	Medicine
8	Surgery
8	Behavioral Medicine and Psychiatry with two weeks of Neurology
8	Obstetrics and Gynecology
8	Pediatrics
8	Family Medicine including Rural Rotation
48	Total

Medicine IV Rotations

8	Two Month Rural
4	Subinternship
4	Critical Care/Anesthesia
4	Surgery/Subspecialties
20	Electives
40	Total

Community Medicine

Community Health Education

Department of Community Medicine

Melissa R. Baker, B.S., Senior Program Coordinator, Educational Programs
Ruth Kershner, Ed.D., R.N., CHES, Associate Co-Chair
Debra Krummel, Ph.D., Associate Co-Chair
Irene Tessaro, Dr. P.H., Associate Co-Chair
Alan Ducatman, M.D., M.S.C., Chair, Community Medicine

Degree Offered

Master of Science

The Department of Community Medicine offers the master of science (M.S.) degree in community health education. The major purpose of the program is to prepare health professionals to interface between communities and health care systems. Community health professionals serve as partners in the health care team and provide leadership in planning, developing, organizing, implementing, and evaluating health promotion programs.

Health promotion graduates may be employed as community health educators, wellness center program managers, and health promotion specialists in corporations, health agencies, or state/county health departments.

Goal of the M.S. Program

To prepare leaders who can develop effective programs in the community and public health work force to address health needs and maintain healthy lifestyles. Upon completion of the program, graduates will have the ability to:

- Identify relevant data sources and organize data for analysis and interpretation.
- Mobilize communities to address their health needs
- Identify goals and priorities and use them in planning interventions appropriate for the target community
- Assist the community in implementing health interventions designed to effect changes in knowledge, attitudes, or behavior by individuals or groups.
- Evaluate interventions to assess the degree to which communities have successfully addressed health priorities.
- Provide consultation and technical assistance to a wide array of audiences.
- Communicate effectively with target populations who need to enhance their health and with those segments of society who can influence public health.
- Manage prevention programs in a variety of settings including community, school, medical, and workplace.
- Identify health partners and develop networks to enhance the health of communities.

Admission Requirements

Admissions decisions will be based on an overall assessment of the adequacy of an applicant's educational and professional preparation for the successful completion of the master of science degree program. Applicants must hold a bachelor's degree from an accredited college or university; meet University admission standards; and demonstrate academic achievement in previous studies. Applicants are regularly admitted for the fall term. The preferred admission cycle is for fall, but applicants may be admitted during the spring or summer terms if they are highly qualified and the program has not reached capacity enrollment.

1. Applicants must complete a WVU Application for Graduate Admission and attach a nonrefundable check for the amount specified on the application form.
2. Applicants must submit sealed transcripts of all college coursework to the Graduate Unit, West Virginia University Office of Admissions and Records Graduate Unit, West Virginia University Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506.

3. Applicants must have attained a GPA of 2.75 or better on a scale of 4.0 at the baccalaureate level to be accepted as regular graduate students. Students with a GPA of 2.75 or better must submit: (a) a one-page (typewritten/wordprocessed) statement addressing their goals and interests in health, and (b) a resume (vitae) of all prior work experiences.
4. Applicants with a GPA below 2.75 may be accepted on a provisional basis. *Previous work experience is a requirement for students admitted provisionally.* Students seeking provisional admission must submit: (a) a one-page (typewritten/word-processed) statement addressing their goals and interests in health, (b) a resume (vitae) of all prior work, and (c) three reference letters addressing potential for academic success and effectiveness in prior work performance.
5. The ability to use computers in community/public health applications is a requirement for graduate work. It is the responsibility of students accepted into the M.S. program to become skilled in computer applications.
6. Applicants meeting admission requirements may not be accepted if program enrollment maximum level has been reached. Preferential admission is given to the best qualified students who have the following:
 - At least two years of full-time professional work experience in the health or human services field.
 - A bachelor's degree in health promotion or health education.

Performance Standards

1. All students must maintain a 3.0 grade-point average in order to graduate with the master of science degree.
2. No more than two grades of C may be earned in required courses. A third C in a required course will result in dismissal from the program.
3. Courses in which the student receives a C, D, or F may be repeated. The grade made in the second effort is the final grade. Students will have only one opportunity to improve a grade.
4. A grade of I (incomplete) must be removed within one calendar year or it will be converted to a grade of F.
5. All students completing the CHPR master's degree must sit for the CHES (Certified Health Education Specialist) examination given annually by the National Commission for Health Education Credentialing. This examination provides for nationally recognized individual certification as a community health education specialist.
6. All students must complete a program satisfaction survey before graduation.

Course of Study

Students in the M.S. program will select either a practicum track or a research track. The course of study includes a minimum 24 hours of required courses, nine hours of electives, and either a six-hour practicum (CHPR 650) or a six-hour thesis (CHPR 697), for a minimum total of 39 credit hours.

An alternative program may be designed for students with extraordinary professional experience or academic preparation. Such a program must be approved by the student's graduate committee and incorporated into the student's plan of study before completing any coursework toward the M.S. degree.

Transfer Credit

1. No grade lower than a B may be transferred into the program.
2. No required courses may be transferred into the program.
3. All transfer electives must be approved in advance by the appropriate program committee(s). A maximum of six credit hours of approved electives may be transferred into the program.

Required Courses	Hrs.
PUBH 601 <i>Introduction to Community and Public Health</i>	3
PUBH 611 <i>Applied Biostatistics for Health</i>	3
CHPR 612 <i>Social and Behavioral Theory</i>	3
PUBH 625 <i>Biology, Society, and Human Health</i>	3
CHPR 634 <i>Health Promotion Research Methods</i>	3
CHPR 635 <i>Management for Community and Public Health</i>	3
CHPR 638 <i>Community Health Assessment and Evaluation</i>	3
CHPR 648 <i>Intervention Design</i>	3
CHPR 650 <i>Practicum or</i>	6
CHPR 697 <i>Thesis</i>	6

For information on a related program in the Department of Community Medicine, see the listing for the master of public health degree program.

The Department of Community Medicine educational programs are currently undergoing revision. The stated admission requirements are subject to change. Please consult the *Department of Community Medicine Educational Programs Policy Handbook* for current program requirements. To obtain a copy, contact the Department of Community Medicine Educational Programs office at (304) 293-0683 or visit our web site at www.hsc.wvu.edu/som/cmed/edprog.

Public Health

Department of Community Medicine

Melissa R. Baker, B.S., Senior Program Coordinator, Educational Programs

Ruth Kershner, Ed.D., R.N., CHES, Associate Co-Chair

Debra Krummel, Ph.D., Associate Co-Chair

Irene Tessaro, Dr. P.H., Associate Co-Chair

Alan Ducatman, M.D., MSC, Chair

Degree Offered

Master of Public Health

Master of Public Health

The field of public health encompasses a number of specific disciplines whose mission is to improve quality of life and health outcomes among all members of a community. Public Health strategies typically are implemented at a broad societal and population level—for example, environmental regulations, water quality control, immunization programs, and health education initiatives.

Goals of the M.P.H. Program

- To improve the education and professional impact of public health professionals in West Virginia.
- To improve the cost effectiveness, quality assurance, and impact of population-driven health policy decisions in West Virginia.
- To increase the interdisciplinary collaboration among health care personnel in West Virginia.
- To measure and improve the health status of West Virginians.

Our program offers a generalist M.P.H. degree that prepares students for professional positions in a wide range of settings including local, state, and federal public health agencies, community-based organizations, consumer groups, and private enterprise. Required and elective courses cover the five core areas of public health: biostatistics, epidemiology, environmental health science, behavioral and social science, and health services administration

The program is accredited by the Council on Education in Public Health (CEPH).

Admission Requirements

The M.P.H. program seeks students with a strong, genuine commitment to a career in public health. An M.P.H. degree is appropriate for physicians, nurses, nutritionists, and other health care professionals with a strong interest in preventive medicine and community health. We welcome applications from both mid-career professionals and from students who have recently completed the bachelor's degree. Physicians may also apply to the Occupational Medicine Residency Program, designating the M.P.H. as part of their residency.

Admissions decisions will be based on an overall assessment of the applicant's demonstrated commitment to public health and her/his educational and professional preparation for the successful completion of the master of public health degree program. All aspects of an applicant's record, such as professional experience and career achievements, will be considered. The Admissions Committee reviews applications on a rolling basis. Contact the Department of Community Medicine for current application deadline dates.

Applicants to the M.P.H. program must:

1. Submit an application for graduate admission to West Virginia University and attach a nonrefundable check for the amount specified on the application form.
2. Submit sealed transcripts of all college coursework to the Graduate Unit, West Virginia University Office of Admissions and Records.
3. Hold a bachelor's degree from an accredited college or university and a minimum grade-point average of 2.75 on a scale of 4.0.
4. Submit scores for the general test of the Graduate Record Examination (GRE).
5. Complete an official M.P.H. program application form.
6. A minimum score of 550 on the TOEFL (Test of English as a Foreign Language) exam is required for all international applicants and for all applicants whose first language is not English.
7. The ability to use computers in public health applications is a requirement for graduate work. It is the responsibility of students accepted into the M.P.H. program to become skilled in computer applications.

Performance Standards

1. All students must maintain a 3.0 grade-point average during their course of study.
2. Grades lower than C will not count toward fulfilling degree requirements.
3. A faculty review is required if two grades of C or lower are recorded. Three grades of C or lower will result in academic suspension or termination from the program.

Course of Study

The course of study includes a minimum 18 hours of required courses, 15 hours of electives, and a six-hour practicum (PUBH 689), for a minimum total of 39 credit hours.

Required Courses	Hrs.
PUBH 611 <i>Applied Biostatistics for Health</i>	3
CHPR 612 <i>Social and Behavioral Theory</i>	3
PUBH 630 <i>Policy and the Health System</i>	3
CHPR 635 <i>Management for Community and Public Health</i>	3
PUBH 650 <i>Environmental Health</i>	3
PUBH 660 <i>Public Health Epidemiology</i>	3
PUBH 689 <i>Practicum</i>	6

For information on a related program in the Department of Community Medicine, see the listing for the master of science degree in Community Health Education.

The Department of Community Medicine educational programs are currently undergoing revision. The stated admission requirements are subject to change. Please consult the *Department of Community Medicine Educational Programs Policy Handbook* for current program requirements. To obtain a copy, contact the Department of Community Medicine Educational Programs office at (304) 293-0683 or visit our web site at www.hsc.wvu.edu/som/cmmed/prog.

Human Performance and Applied Exercise Science

The Department of Human Performance and Applied Exercise Science has three divisions:

Division of Exercise Physiology

Includes an undergraduate and a graduate program.

Division of Occupational Therapy

Includes an entry-level master's program.

Division of Physical Therapy

Includes an entry-level master's program.

Division of Exercise Physiology

Rachel A. Yeater, Ph.D., Professor and Chair

www.hsc.wvu.edu/som/ep

Degree Offered

Bachelor of Science

Introduction

The WVU exercise physiology program was established in the Robert C. Byrd 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. The bachelor of science in exercise physiology is a preparatory program for graduate or professional school. Graduates continue their education in areas such as exercise physiology, physical therapy, or medicine. The program is designed to provide students a background in basic science and exercise physiology as well as courses in nutrition, athletic training, first aid and emergency care, and business.

The Profession

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, or 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. 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 health care system. Employment opportunities are expanding and increasing with experience and level of education.

Bachelor of Science

Admission

Students must meet the minimum requirements for WVU for admission to the program. All coursework completed prior to transfer to the exercise physiology program requires at least a 2.75 cumulative grade-point average and a grade of C or better in all required courses.

Program Requirements

Students must complete the University requirements for the liberal studies program (including 12 hours of Cluster A and 12 hours of Cluster B). Students must complete the following courses or course equivalents in theory and foundation to meet the exercise physiology program requirements.

Course	Hrs.
CHPR 172 <i>First Aid and Emergency Care</i>	3
PET 175 <i>Motor Learning and Development</i>	3
ATTR 121 <i>Sport Injury Control and Management</i>	3
ATTR 219 <i>Gross Anatomy</i>	3
EXPH 293 <i>Personal Wellness</i>	1
EXPH 293A <i>Introduction to Exercise Physiology</i>	1
EXPH 293B <i>Introduction to Conditioning Techniques and Methods</i>	1
EXPH 293C <i>Introduction to Field Placement</i>	1
EXPH 364 <i>Kinesiology</i>	3
EXPH 365 <i>Exercise Physiology I</i>	3
EXPH 368 <i>Laboratory Techniques and Methods I</i>	3
EXPH 491 <i>Professional Field Experience</i>	6
EXPH 496 <i>Senior Thesis</i>	3
MATH 126 <i>College Algebra*</i>	3
MATH 128 <i>Plane Trigonometry*</i>	3
PHYS 101 <i>Introductory Physics</i>	4
PHYS 102 <i>Introductory Physics</i>	4
CHEM 115 <i>Fundamentals of Chemistry</i>	4
CHEM 116 <i>Fundamentals of Chemistry</i>	4
CHEM 233 and 235 <i>Organic Chemistry I</i>	4
CHEM 234 and 236 <i>Organic Chemistry II</i>	4
BIOL 101 and 103 <i>General Biology and Lab**</i>	4
BIOL 102 and 104 <i>General Biology and Lab**</i>	4
PSIO 241 <i>Elementary Physiology</i>	4
HN&F 171 <i>Introduction to Human Nutrition</i>	3
BUSA 310 <i>Business Law</i>	3
BUSA 320 <i>Survey of Management</i>	3
BUSA 330 <i>Survey of Marketing</i>	3
STAT 211 <i>Elementary Statistical Inference</i>	3
Suggested Electives: BIOL 219 <i>The Living Cell</i> (4 hrs.) and BIOC 339 (3 hrs.)	

*MATH 129, 155, or 150 may be substituted for MATH 126 and 128.

**BIOL 115 and 117 may be substituted for of BIOL 101–104.

Students must have a grade of C or better in all required courses. Science courses must be taken at WVU. Students must have a minimum of 128 hours to graduate. Students must maintain a cumulative GPA of 2.5 or better to remain in the program.

Exercise Physiology Curriculum Plan

Freshman

First Semester	Hrs.	Second Semester	Hrs.
ENGL 101	3	MATH 128*	3
Cluster A or B	6	BIOL 102 and 104**	4
MATH 126 *	3	Cluster A or B	6
BIOL 101 and 103**	4	CHPR 172	3
EXPH 293	1	EXPH 293A	1
Total	17	Total	17

Sophomore

First Semester	Hrs.	Second Semester	Hrs.
CHEM 115	4	CHEM 116	4
PHYS 101	4	PHYS 102	4
HN&F 171	3	BUSA 320	3
ATTR 121	3	PSIO 241	4
ENGL 102	3	Cluster A or B	3
EXPH 293B	1	EXPH 293C	1
Total	18	Total	19

Junior

First Semester	Hrs.	Second Semester	Hrs.
CHEM 233 and 235	4	CHEM 234 and 236	4
EXPH 364	3	EXPH 365	3
Writing course	3	ATTR 219	3
Cluster A or B	6	EXPH 368	3
Total	16	Cluster A or B	3
		Total	16

Senior

First semester	Hrs.	Second semester	Hrs.
EXPH 491 (Internship)	3	EXPH 496 (Senior thesis)	3
BUSA 310	3	EXPH 491 (Internship)	3
STAT 211	3	BUSA 330	3
Electives	3	Electives	6
Total	12	Total	15

(Suggested electives: BIOL 219 *The Living Cell* (4 hrs.) and 339 *Introduction to Biochemistry* (3 hrs.)

*MATH 129, 155, or 150 may be substituted for MATH 126 and 128.

**BIOL 115 and 117 may be substituted for of BIOL 101–104.

Doctor of Philosophy (Ph.D.)

The Division of Exercise Physiology offers a program leading to the doctor of philosophy degree (Ph.D.) in the School of Medicine. The 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.

The faculty in the Division of Exercise Physiology views the Ph.D. primarily as a research degree. Research training and experience are provided under the guidance and supervision of the graduate faculty. The aim of this effort is to promote attitudes, habits, skills, and abilities that will enable the student to grow and develop as an independent scientist.

Graduate work involves a program of study and research individually designed to utilize the abilities and strengths of the faculty (e.g., in: cardiovascular system, heart disease, neuromuscular system, aging, immunology, cancer, and diabetes) and accommodate the needs of the student within an area of specific interest. The exact content of a program of study for a particular student usually will differ from one student to another. Nevertheless, there are common goals, expectations, policies, and procedures that will be universal for all graduate students. Likewise, there are activities and responsibilities that will be common among all faculty advisors in the Division of Exercise Physiology.

Program Features

1. Admissions and Performance Standards

Program requirements typically restrict the admission of first time applicants to the fall semester. The deadline for the fall admission is March 15 of each year. However, the exercise physiology faculty will consider applications to begin work during the fall, spring, or summer semesters.

Students applying to the Ph.D. program normally have completed a master's degree with a minimum graduate grade-point average of 3.0. In addition, applicants must submit two letters of recommendation from professors involved with the student's academic work, including faculty who can comment on the applicant's research ability and aptitude, an official transcript of all college work, and the results of the Graduate Record Examination. The minimum recommended score on the Graduate Record Examination is 1100 for the verbal and quantitative scores combined. However, students will not be accepted or denied acceptance based solely on test scores. An interview with the program faculty is required. Students will be selected by the Exercise Physiology Admissions Committee. Students who have not completed a master's degree but wish to be considered for the Ph.D. program should contact the director of graduate studies (salway@hsc.wvu.edu). Normally, students with a bachelor degree can be admitted to the Ph.D. program contingent upon completing the master's requirements. Typically, these students would begin coursework in the master's program, and when the requirements for the master's degree have been met, (one to two academic years) the student will be considered for admission to the Ph.D. program.

Normally, students are enrolled for three to five years in the Ph.D. program with the majority of time spent in preparation for dissertation research and conducting independent dissertation research.

Grade requirements for the doctoral major in exercise physiology include the following:

- a. Minimum GPA of 3.0.
- b. No grade less than B will be accepted for any exercise physiology course.
- c. No grade less than C will be allowed in any of the courses on the plan of study.
- d. Students may be required to obtain a B in non-exercise physiology courses which the dissertation committee views as critical for the student's research success (i.e., students who obtain a C may be required to retake courses to obtain a grade that is B or better)

Failure to meet these requirements will result in dismissal from the program. The exercise physiology graduate faculty will review all petitions to remain in the program according to due process. The faculty may provisionally retain a student in the program if special circumstances exist. In this case, the graduate faculty and the doctoral committee will review the student's record and render its decision by majority vote. If a failing student is provisionally retained, the graduate faculty and the Dissertation/Advisory Committee will draft a plan of approach which the student must follow to regain academic good standing within the specified time period. The student may appeal a decision for dismissal by writing an appeal to the chair of the Division of Exercise Physiology. The division chair will convene a meeting of the exercise physiology graduate faculty and the student's Doctoral Committee members if a Doctoral Committee had been formed prior to

the student's dismissal. The student may appear at the meeting to make his/her appeal. The graduate faculty and Doctoral Committee members will review the appeal and render a decision by majority vote.

2. Program Requirements

Students will be assigned a provisional advisor upon acceptance into the program. By the end of the first academic year the student must choose a committee chair. The student and chair will invite other faculty members to serve on a graduate committee. All members of the committee must be acceptable to both the student and the chair. The committee and student will develop a plan of study that will include required coursework for the program. The committee will consist of at least five faculty, the majority of whom hold regular graduate faculty status. The chair and two other members of the committee must be members of the exercise physiology graduate faculty. One member of the committee must be from the student's minor area. The committee members will be selected according to their abilities to assist the students with critical aspects of their doctoral work.

Basic Science Prerequisites WVU Course Equivalent	Hrs.
Biology (equivalent of WVU BIOL 101, 102, 103, 104)	8
Physics (equivalent of WVU PHYS 101 and 102)	8
General Chemistry (equivalent of WVU CHEM 115,116)	8
Organic Chemistry (equivalent of WVU CHEM 233, 234, 235)	8

Required Doctoral Coursework (or equivalent)	Hrs.
Human Function Physiology Module	9
Biochemistry 399D (or approved equivalent*)	8
EXPH 791A <i>Advanced Study Exercise Physiology I</i>	3
EXPH 791B <i>Advanced Study Exercise Physiology II</i>	3
EXPH 791C <i>Exercise and Disease</i>	3
EXPH 797 (Must be completed prior to dissertation.)	15
EXPH 796 <i>Graduate Colloquium</i>	3
Statistics*	9
Introduction to research/research rotations (minimum of three research rotations)	

*Specific courses to be determined by doctoral committee.

Minor Area of Specialization

Students designate a minor area of specialization such as cardiac rehabilitation; reproductive physiology, molecular biochemistry, aging, nutrition, etc. A minimum of 12 hours of coursework must be taken in the minor area of specialization. Doctoral committees may require additional coursework or research credits, depending on a student's research or professional goals. This will be clearly identified by the graduate advisory committee in the student's program of study.

Additional Academic Responsibilities

All doctoral students will be required to present a minimum of three one-hour graduate seminars to faculty and students before graduating. Doctoral students are also required to teach 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 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 the department 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 one to three manuscripts published or in preparation 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.

Comprehensive/Qualifying Examination

The comprehensive (qualifying/candidacy) examination will evaluate a student's readiness for advancement to doctoral candidacy. Advancement to candidacy means that in the judgment of the faculty, the doctoral student has an adequate knowledge of exercise physiology, has an in-depth knowledge of a specialized area in exercise physiology, has acquired adequate research skills to conduct research experiments, knows how to use academic resources, and has potential to do original research autonomously. In other words, the student is qualified to complete the doctoral dissertation and conduct independent research.

Requirements of the Qualifying/Candidacy Examination

The qualifying examination should typically be taken *before the beginning of the third academic year*, preferably in the summer semester of the second year. Some students may require additional didactic coursework if his/her research/science preparation during his/her master's degree was considered to be insufficient to prepare the student for work at the doctoral level. When a student has passed the qualifying examination, he/she will be admitted to candidacy for the Ph.D..

Prerequisites for the Candidacy Examination

The following are prerequisites for advancement to the qualifying examination:

1. The student must have an approved dissertation advisor and a Dissertation Committee.
2. The student must be in good academic standing (GPA of "B" or better) as defined in the doctoral program and this catalog, and have satisfactorily completed the first two years of course requirements (including those specified by the student's Dissertation Committee in the program of study). A *minimum* of 12 credit hours (or equivalent) of research experience is expected, but more is desirable.
3. Two-thirds of the exercise physiology graduate faculty must approve each student for consideration of candidacy before the student is permitted to take Part I. The graduate faculty in conjunction with the dissertation committee will evaluate Part I of the qualifying/candidacy examination. The student must receive an overall B (80 percent) grade to pass Part I. Part II (oral and written components) are evaluated *exclusively* by the Dissertation Committee, and there can be no more than *one* dissenting vote from this committee for a student to pass Part II.

Type of Examination

The candidacy examination has two parts and students should aim to successfully complete both parts within a single month.

Part I: Comprehensive integrative written examination: This is taken over major areas of exercise physiology, the minor area of concentration and research design. Students typically will write the responses to Part I over four days (e.g., Monday, Tuesday, Thursday, Friday). The examination will be available for the student to begin at 8:00 each of the scheduled days and normally the exam will be conducted from 8:00 a.m.–5:00 p.m. on each of the four days. The exam will begin at 8:00 a.m.; however, students may choose to start at another time after 8:00 a.m. if this is arranged in advance. Nevertheless, no student will be permitted to continue the exam beyond 5:00 p.m. even if the student opted to begin writing the exam at some time other than the scheduled time. Thus, it is the *student's responsibility* to ensure that he/she has adequately and appropriately scheduled the block of time between 8:00 a.m.–5:00 p.m. each day to respond to all questions that were submitted to the student that day.

Part II: Written research proposal. Normally Part II will be scheduled within 2-4 weeks of successful completion of Part I. In Part II graduate students will be required to write and submit a NIH/AHA-fellowship type grant proposal to the advisory committee as part of the divisional requirements for the qualifying examination. This grant proposal should detail the intended research dissertation project, hypothesis, specific aims, review of literature, methods, literature citations, etc. The advisory committee may add other elements to the qualifying examination evaluation. Students should work on Part II throughout the second year of graduate enrollment.

Part II: Oral examination of research proposal. Typically the oral defense for Part II will be complete within one to two months after the successful completion of Part I and usually *within two weeks* of being judged as having successfully completed the written component to Part II of this examination.

Qualifications for Advancement to Ph.D. Candidacy

The student must demonstrate:

- A wide base of knowledge in exercise physiology (evaluated in Part I.)
- An ability to think independently (evaluated in Part I and Part II.)
- Integration of existing knowledge into a practical research question, by identifying what is known, what is not known etc. (Evaluated in Part I and Part II.)
- Critical evaluation of literature (Evaluated in Part II.)
- Problem-solving skills (Evaluated in Part II and Part II.)
- Acceptable written and oral communication skills (evaluated in Part I and Part II) including the ability to “think on one’s feet.”

Course of Action for Students Who Fail the Qualifying Examination

Students who do not achieve an 80 percent (B) as an overall grade in Part I will not be permitted to proceed to Part II of the examination. If the *overall* Part I examination average is less than 80 percent, the entire exam must be repeated. If the overall Part I examination average is greater than 80 percent, but the score(s) in one or two areas is (are) below 70 percent only the question(s) in that (those) area(s) must be repeated. If the overall examination average in Part I is greater than 80 percent, but the scores in three or more areas are below 70 percent, the entire examination must be repeated. If a portion of the Part I examination or the entire examination must be retaken, the student must do this within a period of *two months* after failure of the original examination. The examination or a portion of the examination may be retaken only once. The above-mentioned criteria will apply to this examination. If the written proposal (Part II) is judged to be acceptable but the student fails the oral exam (Part II) the second oral exam must be taken within four weeks after the failed exam.

Failure of either portion of Part II (the written research proposal or the oral examination) for a second time is ground for dismissal from the program. Students will be permitted due process and the division chair will convene the graduate faculty as a whole, who will consider written appeals from any student who has been dismissed by virtue of failing the qualifying/candidacy examination.

Submission of Part II Written Research Proposal to a Funding Agency

Part II 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 his/her second year of enrollment. Constructing the proposal is a part of the requirements for graduation. Part II of the candidacy examination provides the graduate student the opportunity to complete these requirements for submitting the grant proposal, while also preparing for the qualifying examination and assembling the ideas for the dissertation project.

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 broad field of exercise physiology. Students must pass an oral examination based upon his/her dissertation.

The dissertation must be constructed in a format suitable to the graduate school and the advisor. Preferable formats will include writing the chapters as if they were to be 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 hypothesis that were tested. The typical doctoral dissertation will yield three to five peer reviewed manuscripts. To optimize feedback from the co-authors and to ensure timely publication, the manuscripts originating from dissertation work should be submitted for peer review *prior* to graduation, and some manuscripts may be published before the student graduates. Proper acknowledgment for funding of the research should be noted in both the dissertation and the manuscripts obtained from dissertation work. It is expected that several of these manuscripts that will be included in the dissertation will have been published before graduation. It is further expected that *all* of the manuscripts will be submitted to a peer-reviewed journal for consideration for publication before graduation. The process of writing the chapters as journal manuscripts will facilitate this process.

Master of Science

The master of science program in exercise physiology provides coursework that prepares students for careers in adult fitness, hospital or corporate-based wellness programs, or cardiac rehabilitation. Students specialize by completing a 200-hour clinical internship. A thesis option also is available.

Admission Requirements

Fifteen students are accepted once a year (by May 30) on a competitive basis. Applicants must have a baccalaureate degree in an allied field from an accredited institution with a minimum undergraduate grade-point average of 2.75 (based on A=4.0 grade points). Three letters of reference are required. Applicants are selected for admission on the basis of scholastic standing (special attention is given to science grades) and recommendations. The graduate application, three letters of reference, and college transcripts must be submitted by March 15.

Program Requirements

A minimum of 36 semester hours of credit is required for graduation. The following courses or course equivalents are required:

Course	Hrs.
ATTR 419 <i>Gross Anatomy</i>	3
PSIO 441 <i>Mechanisms of Body Function</i>	4
PHAR 449 <i>Drugs and Medicines</i>	3
EXPH 691E <i>Human Nutrition for EXPH</i>	3
EXPH 691 <i>Exercise Prescription</i>	3
EXPH 667 <i>Exercise Physiology II</i>	3
STAT 611 <i>Statistical Methods</i>	3
EXPH 670 <i>Laboratory Techniques And Methods II</i>	3
EXPH 671 <i>Stress Testing</i>	3
EXPH 668 <i>Diabetes and Exercise</i>	3
EXPH 672 <i>Professional Field Placement II</i>	6
<i>or if the student chooses the thesis option, the following</i>	
EXPH 798 <i>Dissertation/Thesis</i>	3
EXPH 497 <i>Research</i>	3

Division of Occupational Therapy

Randy P. McCombie, Ph.D., OTR/L, Chair

Degree Offered

Master of Occupational Therapy

Introduction

In the fall of 1993, the West Virginia Board of Trustees approved the establishment of a new master's degree program at West Virginia University, leading to an entry-level master's degree in occupational therapy. The program at 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 63–65 hours of prerequisite courses, which in most instances will take two years to fulfill.

The Profession of Occupational Therapy

Occupational therapy is a health profession which provides services to people of all ages with physical, mental, or developmental disabilities. The purpose of occupational therapy is to help individuals achieve a maximum level of independence. The focus is on developing the capacity to function in all activities (occupations) of daily life, including self care, work, and leisure. Hence the name occupational therapy.

Occupational therapy is a health and rehabilitation profession designed to help people regain and build skills that are important for health, well-being, security, and happiness.

Occupational therapists work with people of all ages who, because of physical, developmental, social, or emotional deficits, need specialized assistance in learning skills to enable them to lead independent, productive, and satisfying lives.

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, P.O. Box 31220, Bethesda, M.D. 20824-1220. AOTA's phone number is (301) 652-AOTA. 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). For more information one can contact NBCOT at (301) 990-7979. 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.

Admission Process

Application packets are available from the Office of Admissions and Records, (304) 293-3521, after December 1. The application must be completed by February 15. A personal interview may be required.

Prerequisite Courses	Hrs.
ENGL 101	3
ENGL 102	3
PSYC 101	3
PSYC 241	3
PSYC 281	3
SOCA 101 or SOCA 510	3
BIOL 101 and BIOL 103	4
BIOL 102 and BIOL 104	4
CHEM 115	4
Both MATH 126 and 128; or MATH 129	
PHYS 101	4
PHYS 102	4
STAT 211	3
COMM 100	1
COMM 102	2
Appalachian, rural, or West Virginia studies course in any discipline	3
Fulfillment of WVU's foreign or minority cultures requirement (see <i>WVU Undergraduate Catalog</i>)	3
Completion of WVU's LSP requirements—Cluster A courses (see <i>WVU Undergraduate Catalog</i>)	12

WVU students must consult the Student Advising Center prior to enrolling in prerequisite courses. These courses may be taken at any institution which offers equivalent courses. Any questions regarding pre-requisite courses may be directed to the Office of Academic Advising, (304) 293-5805. Equivalence may be determined by contacting the transfer desk, Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009.

Admission Standards

Normally, students apply to the program during their second year of college. They must have a minimum of 63 to 65 hours of college credit which includes the pre-requisites listed above. 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, overall and prerequisites (a higher GPA may be necessary given the competitive nature of the program).
- Minimum of 60 hours of volunteer or work experience with people with disabilities is required. A minimum of 45 of those hours must be with a licensed occupational therapist or a certified occupational therapy assistant (COTA). Students should contact the Division of Occupational Therapy to determine the type of experience required.

- Two letters of recommendation are also required, one from an occupational therapist or COTA who supervised the volunteer/work experience and the other from a professor who has recently taught the applicant.
- Completion of *all* prerequisite courses by the end of the semester of application (normally, second semester of sophomore year) is normally required.

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 will include courses in basic sciences and 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 Fieldworks. Students are financially responsible for transportation, housing, and meal expenses related to clinical assignments.

Occupational Therapy Curriculum Plan

Junior Year

Summer Session II	Hrs.
OTH 300	4
OTH 480	1
Total	5

First Semester	Hrs.
PSIO 441	4
OTH 301	3
OTH 302	2
OTH 303	2
OTH 304	4
OTH 306	4
Total	19

Second Semester	Hrs.
OTH 307	4
OTH 308	3
OTH 321	3
OTH 360	3
OTH 406	3
OTH 480	1
Total	17

Senior Year

First Semester	Hrs.
OTH 384	2
OTH 401	4
OTH 402	2
OTH 417	3
OTH 430	3
OTH 480	1
Total	15

Second Semester	Hrs.
OTH 385	2
OTH 408	3
OTH 416	2
OTH 419	3
OTH 432	4
OTH 435	3
OTH 480	1
Total	18

Graduate Year

Summer I and II	Hrs.
OTH 540	6
Total	6

First Semester	Hrs.
OTH 500	3
OTH 503	3
OTH 505	3
OTH 520	3
OTH 551	3
OTH 480	1
Total	16

Second Semester	Hrs.
<i>Weeks 1-4</i>	
OTH 501	4
OTH 550	3
OTH 480	1
OTH 697	4
<i>Weeks 5-16</i>	
OTH 640	6
Total	18

Entry-Level Master's Program in Occupational Therapy

Summer Session II

- OTH 300 *Essentials of Clinical Anatomy*
- OTH 480 *Current Topics in Occupational Therapy*

Fall Term—First Year

- PSIO 441 *Mechanisms of Body Function*
- OTH 301 *Professional Foundations*
- OTH 302 *Survey of Clinical Problem Solving*
- OTH 303 *Functional Movement Across the Lifespan*
- OTH 304 *Clinical Sciences*
- OTH 306 *Kinesiologic Foundations for Intervention*

Spring Term—First Year

- OTH 307 *Neurobiologic Foundations*
- OTH 308 *Evaluation Procedures*
- OTH 321 *Developmental Life Tasks*
- OTH 360 *Research Methods in OT*
- OTH 406 *Cardio-pulmonary Evaluation and Intervention*
- OTH 480 *Current Topics in Occupational Therapy*

Fall Term—Second Year

- OTH 384 *Fieldwork I (1)*
- OTH 401 *Clinical Sciences*
- OTH 402 *Clinical Decision Making*
- OTH 417 *Occupational therapy in Geriatrics*
- OTH 430 *OT in Mental Health*
- OTH 480 *Current Topics in Occupational Therapy*

Spring Term—Second Year

- OTH 385 *Fieldwork I (2)*
- OTH 408 *Tests and Measures in Occupational Therapy*
- OTH 416 *Professional Decision Making*
- OTH 419 *Professional Values*
- OTH 432 *OT Interventions—Mental Health*
- OTH 435 *Therapeutic Activity*
- OTH 480 *Current Topics in Occupational Therapy*

Summer—Beginning Third Year

- OTH 240 *Level II Fieldwork*

Fall Term—Third Year

- OTH 480 *Current Topics in Occupational Therapy*
- OTH 500 *Health Care Issues in OT*
- OTH 503 *OT in Pediatrics*
- OTH 505 *Prosthetics and Orthotics*
- OTH 520 *OT in the Work Environment*
- OTH 551 *OT in Prevention and Wellness*

Spring Term—Third Year

- OTH 480 *Current Topics in Occupational Therapy*
- OTH 501 *Management for OT Practice*
- OTH 550 *Education in OT Practice*
- OTH 640 *Fieldwork II*
- OTH 697 *Supervised Research in OT*

Division of Physical Therapy
 MaryBeth Mandich, PT, Ph.D., Chairperson

Degree Offered

Master of Physical Therapy (entry-level)

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 is accredited by the Commission on Accreditation in Physical Therapy Education, a specialized accrediting body recognized by the Council on Postsecondary Accreditation. One class of 30 full-time students is accepted each year for the final three years of an entry-level master's degree program.

Students admitted into the program complete ten semesters (four are summer sessions) 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. An entry-level master's degree (M.P.T.) is awarded to those completing the program, and entitles the graduate to apply for examination for state licensure. A license to practice physical therapy is required by all states.

Admission Requirements

Recommended high school preparation for physical therapy includes courses in biology, chemistry, algebra, trigonometry, physics, and social sciences. Computer literacy is recommended.

Because individualized instruction in laboratories and clinics is an essential component of the program, enrollment must be limited. All students who wish to enter the program must apply for admission and must have completed or be enrolled in the courses listed under "Courses Required for Application." These courses are available at most colleges and usually require two years to complete. Students with degrees in other fields are welcome to apply but must also complete these courses.

For current information on the M.P.T. degree program, please contact the academic advisor for the Division of Physical Therapy at (304) 293-3611 or visit our web site at www.hsc.wvu.edu/som/pther.

Courses Required for Application*

Hrs. WVU Courses

Pre-Physical Therapy Courses

Biology (with lab)	8	BIOL 101, 102 and 103, 104
Chemistry (with lab)	8	CHEM 115 and 116
Physics (with lab)	8	PHYS 101 and 102
Introductory psychology	3	PSYC 101
Developmental psychology (Life-span)	3	PSYC 241
Introductory statistics	3	STAT 211

WVU Liberal Studies Requirements

English composition	6	ENGL 101 and 102
Cluster A courses** (Humanities and fine arts; four courses in three different disciplines, including two courses in one discipline)	12	
Cluster B courses** (Social and behavioral sciences; two courses in two different disciplines, neither of which is psychology)	6	

*See the *WVU Undergraduate Catalog* course descriptions for course details. Courses at other universities must be equivalent to the WVU required courses.

**See "Liberal Studies" section of the catalog for specific courses acceptable in each Cluster. Three hours in either Cluster A or Cluster B courses must focus substantially on the study of a foreign or minority culture or on women and/or issues of gender.

The courses listed are minimum requirements for application. Other suggested electives are: speech communication, any course dealing with Appalachian or rural studies, and an introductory computer science course. Students are encouraged to pursue studies in additional courses of interest. Students who wish to substitute a course for one of those listed should contact the Division of Physical Therapy for permission and provide a written description of the proposed substitute.

Applicants must have both a minimum cumulative and a minimum pre-physical therapy science GPA of 3.0. All applicants must have taken the Allied Health Professions Admission Test prior to the application deadline and submit two recommendations from physical therapists (not relatives) with whom they have worked in clinical settings. A minimum of 60 hours of clinical volunteer or work experience is required. It is suggested this experience be in at least two different settings.

Preference is given to West Virginia residents. Non-residents who have attended a West Virginia college or university, or who have other ties to the state, will also be considered.

Applicants who complete any of their pre-requisite courses at a college or university outside of West Virginia must submit a catalog or photocopy of the catalog description for all pre-requisite courses taken.

Application forms are available beginning December 1 from the Office of Admissions and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. All application materials must be received from the applicant no later than January 31. Qualified applicants are interviewed by the physical therapy admissions committee. Those considered to demonstrate the greatest potential for success are recommended for admission into the program.

Graduation Requirements

Students admitted into the program must complete all required courses of each term with a grade of at least C or P in each, and must maintain a minimum GPA of 2.5 each term. In order to progress to the third (graduate) professional year, a cumulative grade-point average of 3.0 is required. Any student who does not meet these requirements may be placed on probation, suspended, or dismissed from the program. The Division of Physical Therapy reserves the right to suspend or dismiss any student who does not perform at an overall level considered satisfactory for patient care.

Beginning with the second semester of the junior year, the student will begin clinical education experiences which are designed to prepare the student to practice physical therapy. The clinical education program consists of part-time (one day per week; one week per semester) experiences until the end of the second year of the program. During the summer between the second and third years of the program, a full-time twelve week clinical education rotation is done which satisfies the state requirement for practice in a rural setting. In the spring of the third year (February through May), students have a second full-time clinical education experience consisting of twelve weeks total (may be six in two different settings). This clinical education experience allows the student to explore practice in a variety of health care settings. Students must be prepared to pay for travel, meals, and lodging while participating in clinical rotations.

Required Physical Therapy Curriculum

First Year

First Semester	Hrs.	Second Semester	Hrs.
PSIO 441	4	EX PHYS 365	3
PT 300	4	PT 306	4
PT 301	3	PT 307	4
PT 302	2	PT 308	3
PT 303	2	PT 309	1
PT 304	4	PT 384	1
Total	19	PT 321	3
		Total	19

Summer I	Hrs.
PT 400	4
Total	4

Second Year

First Semester	Hrs.	Second Semester	Hrs.
PT 485	2	PT 416	2
PT 401	4	PT 417	2
PT 402	2	PT 419	3
PT 404	3	PT 420	4
PT 406	3	PT 425	3
PT 410	4	PT 450	4
Total	18	Total	18

Summer I & II	Hrs.
PT 584	3
<i>each summer session</i>	

Third Year

First Semester	Hrs.	Second Semester	Hrs.
PT 500	2	PT 550	3
PT 501	3	PT 551	3
PT 502	3	PT 585	6
PT 503	2	PT 693	3
PT 505	3	PT 697	3
PT 506	4	Total	18
Total	17		

Summer I	Hrs.
PT 580	2
PT 591	0-3 (var)
PT 597	1
Total	3-6

Medical Technology
 Jean D. Holter, Ed.D., Director

Degrees Offered
Bachelor of Science, Master of Science

Introduction

The WVU Medical Technology Program admitted the first students in the 1945–1946 academic year. In 1987, the program started a part-time curriculum, a refresher curriculum, and a career-laddering mechanism with Allegany Community College, West Virginia Northern Community College, and Fairmont State College.

The primary aim of the undergraduate medical technology program is to provide a strong educational background in the clinical laboratory sciences.

The purposes are:

- To provide a program that meets the academic standards of the University.
- To provide medical technologists for hospitals, public health, and research laboratories.
- To prepare medical technologists for teaching and supervisory positions.
- To provide an educational background accepted for graduate work.

The primary purpose of the graduate program in medical technology is to prepare students as supervisors of hospital clinical laboratories, to teach a specific laboratory area, or to direct a medical technology program.

Ruby Memorial Hospital (WVU Hospitals Inc.), is the primary teaching hospital for the medical technology program. The hospital is part of the Robert C. Byrd Health Sciences Center of West Virginia University. The hospital is a tertiary care teaching hospital and referral center; it is a 376-bed facility. The clinical laboratories are on the third floor and occupy approximately one-fourth of the floor. The laboratories are full-service including hematology, chemistry, special chemistry, radioimmunoassay, blood bank, microbiology, mycology, virology, and immunology. Students may be required to fulfill part of their rotations at extramural sites in West Virginia.

The medical technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The present accreditation, for seven years, will be reviewed in 2002.

Admission Requirements Premedical Technology

Admission requirements for the first year (pre-medical technology) are the same as those for the WVU College of Arts and Sciences. (See the *WVU Undergraduate Catalog*).

Undergraduate Program in Medical Technology

Admission to the medical technology program includes course requirements, grade-point average, a personal interview, letters of recommendation, and the Allied Health Professions Admissions Test (AHPAT).

The prerequisite course requirements are:

English: six hours of composition and rhetoric (ENGL 101 and 102).

Biology: eight hours of general biology (BIOL 101, 102, 103 and 104).

Chemistry: 12 hours; eight hours of inorganic chemistry (CHEM 115 and 116) and four hours of organic chemistry (CHEM 231)*

Physics: eight hours of general physics (PHYS 101 and 102)

Mathematics: six hours; minimal requirements are college algebra and trigonometry (MATH 126 and 128)

Liberal Studies Program: 21-24 hours of electives; 12 hours each of Cluster A and Cluster B

*Transfer students must complete an organic chemistry course(s) (8 hours) that includes aliphatic and aromatic compounds. The course must include a laboratory. Any student not completing CHEM 131 must take CHEM 133 and 135, 134 and 136, or an equivalent.

Applicants should have a minimum grade-point average of 2.5 (cumulative and science). Applicants may be admitted on probation if their grade-point average (cumulative or science) is less than 2.5. Applicants with less than a 2.0 grade-point average, either cumulative or science, will not be admitted. A grade-point average of 2.5 or above does not necessarily assure admission.

A personal interview with the medical technology admission committee may be required.

Two letters of recommendation from instructors in physics, chemistry, or biology are required.

Allied Health Professions Admissions Test (AHPAT) must be taken prior to applying to the Medical Technology Program. Testing is available at WVU. Further information can be obtained from the Medical Technology Program Office.

Admission of international students is in compliance with West Virginia University regulations. At least one science course (chemistry, physics, or biology) must be completed at an institution of higher education in the United States.

Application Procedure

Application forms for admission to the professional program are available after December 1 from the Office of the Assistant Director of Admissions and Records, West Virginia University Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. There is an application fee of \$10. The priority date for returning the application form is January 15. The deadline date is February 1 if the student expects to enter the program the next fall semester.

Students at West Virginia University or Potomac State College of WVU are not transferred automatically from the preprofessional course to the professional course. Students are selectively admitted to the program.

Certification

Graduates from the medical technology program at West Virginia University are eligible to take national examinations for certification as medical technologists or clinical laboratory scientists. These examinations are conducted by national certification agencies such as American Society of Clinical Pathologists and the National Certifying Agency for Laboratory Personnel. Many institutions require certification for employment.

Graduation Requirements

Junior Year A student must maintain a grade-point average of 2.0 for each semester to be advanced to the senior year. Any student having one or more F's in a semester or more than one D at the end of the junior year may be suspended from the program. The academic and professional standards committee must recommend any student for advancement to the senior year. A satisfactory grade-point average does not assure advancement.

Senior Year A student must maintain a grade-point average of 2.0 for each semester of the senior year. Graduation requires satisfactory completion of all academic work. Graduation requires the recommendation of the faculty of the School of Medicine.

Curriculum Plan

Pre-Medical Technology

First Year

First Semester	Hrs.	Second Semester	Hrs.
CHEM 115 <i>Inorganic</i>	4	CHEM 116 <i>Inorganic</i>	4
Elective*	3	ENGL 101 <i>Comp. and Rhet.</i>	3
MATH 126 <i>Algebra</i>	3	MATH 128 <i>Trigonometry</i>	3
BIOL 101 and 103	4	BIOL 102 and 104	4
MTEC 100** <i>Orientation</i>	2	Total	14
Total	16		

Second Year

First Semester	Hrs.	Second Semester	Hrs.
Electives*	9	CHEM 231 <i>Organic</i>	4
PHYS 101	4	Electives*	6-9
ENGL 102 <i>Comp. and Rhet.</i>	3	PHYS 102	4
Total	16	Total	14-17

* Electives from Cluster A and Cluster B are to be selected to meet the Liberal Studies Program requirements.

**MTEC 1 is not a required subject. It is highly recommended that all students take this course. MTEC 1 is offered each semester.

Medical Technology

Third Year (Medical Technology 1)

First Semester	Hrs.	Second Semester	Hrs.
MTEC 300	4	MBIO 327	1
MTEC 302	2	MBIO 323	5
BIOC 339	5	MTEC 301	4
PHYS 441	4	MTEC 310	1
Elective	3	MTEC 391	2
Total	18	MTEC 339	1
		METC 465	2
		Total	16

Fourth Year (Medical Technology 2)

Students receive didactic and clinical instruction in the WVU Hospitals Inc. laboratories after completion of the junior year. The course of study begins with the summer session and covers three academic semesters. If the student has excessive absences during the senior year, competencies not completed must be made up during the summer sessions.

Students register for the following courses during the three semesters of study.

Required Courses	Hrs.
MTEC 400 <i>Orientation</i>	No Credit
METC 401 <i>Phlebotomy</i>	1
METC 402 <i>Rural Health Practicum</i>	1
METC 403 <i>Community Service Practicum</i>	1
MTEC 420 <i>Immunohematology and Blood Banking</i>	2
MTEC 430 <i>Clinical Chemistry</i>	2
MTEC 431 <i>Clinical Chemistry Laboratory</i>	5
MTEC 440 <i>Clinical Hematology</i>	2
MTEC 441 <i>Clinical Hematology Laboratory</i>	5
MTEC 450 <i>Clinical Microbiology</i>	2
MTEC 451 <i>Clinical Microbiology Laboratory</i>	5
MTEC 460 <i>Clinical Laboratory Instrumentation</i>	2
MTEC 466 <i>Laboratory Management Practicum</i>	2
MTEC 470 <i>Clinical Microscopy</i>	1
MTEC 471 <i>Clinical Microscopy Laboratory</i>	1
MTEC 475 <i>Medical Relevance of Laboratory Analysis</i>	1
MTEC 480 <i>Clinical Immunology</i>	3
METC 481 <i>Clinical Immunology Laboratory</i>	1
Total	41

Graduate Program in Medical Technology Admission

Applicants must have a baccalaureate degree in medical technology or an allied health field from an accredited college or university and must be a certified medical technologist with an acceptable certifying agency.

The area of concentration desired by the student is considered in the undergraduate record evaluation as follows: Individuals who desire to do special study in clinical chemistry, hematology, or immunohematology must have completed a minimum of eight hours in physics, three hours in mathematics, and 12 hours in chemistry to include organic chemistry. Individuals who desire to do special study in microbiology must have completed a minimum of 12 hours of chemistry, including organic chemistry and 16 hours in the biological sciences.

A minimum of one year's experience in a clinical laboratory is required. Applicants must have a minimum undergraduate grade-point average of 2.75 (based on a four-point scale). Results of the aptitude portion of the Graduate Record Examination must be presented. Two professional letters of recommendation are required.

Application Procedure

A preliminary application is filed in the medical technology program office, along with two reference letters and the results of the aptitude portion of the Graduate Record Examination. These three items are reviewed, and if all prerequisites are met, the applicant must make formal application to West Virginia University. Once the formal application and grade transcripts are received, the file is reviewed by the admissions committee. A personal interview is required before final admission to the program.

Graduation Requirements

- Satisfactory completion of all coursework with a 3.0 GPA.
- A problem study in the major/minor area.
- Successful completion of a written comprehensive examination in major and minor interest fields.
- Successful completion of an oral defense of the problem study.

Master of Science

It is expected that students who enter the graduate program in medical technology at West Virginia University will have a goal in mind and will have a special field of interest in medical technology. The course of study the student follows is tailored to the needs of the student as far as it is possible to do so. A minimum of 36 semester hours of credit, including a problem study, is required for the degree.

The student selects:

- A major area of concentration from education, supervision, or administration.
- A minor area from clinical microbiology, clinical chemistry, clinical hematology, or immunohematology.

A minimum of 15 semester hours of work from the following courses is selected, dependent upon the major area of concentration.

Required Courses

	Hrs.
EDP 612 <i>Introduction to Research</i>	3
If the major area is education, the following courses are available:	
EDLS 602 <i>Personnel Administration</i>	3
EDLS 659 <i>Administrative Procedures in Adult Education</i>	3
EDLS 755 <i>Higher Education Law</i>	3
EDLS 756 <i>Higher Education Finance</i>	3
If the major area is supervision and/or administration, the following courses are available:	
EDLS 602 <i>Personnel Administration</i>	3
EDLS 755 <i>Higher Education Law</i>	3
EDLS 756 <i>Higher Education Finance</i>	3
PUBA 610 <i>Administrative Organization and Management</i>	3
PUBA 645 <i>Public Administration and Policy Development</i>	3
The following courses are available for either major for additional credit:	
EDP 231 <i>Sampling Methods</i>	3
EDP 540 <i>Media and Microcomputers in Instruction</i>	3
EDP 620 <i>Introductory Behavior Analysis</i>	3
EDP 611 <i>Measurement/Evaluation</i>	3
CHPR 509 <i>Community Health: Drug Education</i>	3

Students may select courses in schools and colleges at West Virginia University other than the School of Medicine. Courses in management, economics, and education are available, as well as courses in the scientific disciplines of medical technology.

A course in statistical methods, such as Educational Psychology 613 or Statistics 511, is strongly recommended.

All students must complete a minimum of 18 semester hours in a science related to medical technology including MTEC 600 *Seminar* (three hours) and MTEC 697 *Problem Study* (six hours).

All full-time students register for one hour each semester in MTEC 300. Seminars include laboratory management, education in medical technology, and timely topics. A minimum of three hours of seminars to include all three of the above topics is required.

All students are required to pursue study on a problem in their areas of concentration. This study is reported in a thesis-style manuscript. For this study and report, students register in MTEC 697.

The total number of hours in MTEC 697 is determined by the student's program advisor. As many as nine semester hours in MTEC 697 may be taken during one semester, or, by arrangement with the advisor, credit hours may be taken over several semesters. In the final compilation for degree requirements, only six semester hours in MTEC 697 will count toward the fulfillment of the 36 required semester hours for the degree, even though the student may have registered for as many as 15 hours in MTEC 697.

At the discretion of the student's program advisor, other requirements in teaching, supervision, and administration may be necessary. The advisor works out with the student a plan of study for the student's entire graduate program. This plan is made at the end of the first semester of the student's graduate study. A copy of this plan of study is filed in the Health Sciences Center Graduate Programs Office. The student's problem study committee is also formed at this time.

School of Nursing

E. Jane Martin, Ph.D., R.N., F.A.A.N., Dean

Mary Jane Smith, Ph.D., R.N., Associate Dean for Graduate Academic Affairs

Nancy Alfred, D.S.N., R.N., Associate Dean for Undergraduate Academic Affairs

Cynthia Armstrong Persily, Ph.D., R.N., Associate Dean for Academic Affairs,

Southern Region, Chair, Charleston Division

Michelle Janney, Ph.D., R.N., Associate Dean for HSC Clinical Services

Suzanne W. Gross, Ph.D., R.N., Assistant Dean for Student Services

www.hsc.wvu.edu/son

Degrees Offered

Bachelor of Science in Nursing

Master of Science in Nursing

Doctor of Science in Nursing

Introduction

The mission of the WVU School of Nursing is to serve the people of West Virginia and larger society through education, research, and service, including faculty practice. This mission is responsive to changing health-care needs and emerging national and state changes in health-care delivery. The faculty's educational effort is directed to providing high quality programs of instruction which prepare professional nurses to promote, restore, and maintain health for people of all age groups in diverse settings.

Accreditation

The baccalaureate program received initial accreditation with graduation of the first class in 1964. The master's program was initially accredited in 1981. Currently, both programs are fully accredited by the national accrediting agency: the Commission on Collegiate Nursing Education.

Fees, Expenses, Housing, Transportation, Immunization

Students enrolling at the Morgantown campus pay the fees shown in the *WVU Health Sciences Center Catalog* charts, plus special fees and deposits as 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 tastes. Information concerning financial assistance, application forms, and the Free Application for Federal Student Aid (FAFSA) form may be obtained from the financial aid web site at www.hsc.wvu.edu/fin/ or by contacting the HSC Financial Aid Office, Health Sciences North, P.O. Box 9810, Morgantown, WV 26506-9810, telephone (304) 293-3706. The University Housing and Residence Life Office, telephone (304) 293-3621, 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.

Scholarships

The School of Nursing offers several scholarships. These scholarships are administered by the University's Student Financial Aid Office and require completion of the Free Application for Federal Student Aid (FAFSA) form in order to be considered for financial aid.

Additional Information

For additional information visit the School of Nursing web site at www.hsc.wvu.edu/son or contact the WVU School of Nursing Office of Student Services, 6702 Health Sciences South, P.O. Box 9600, Morgantown, WV 26506-9600, telephone (304) 293-1386 or (toll free) 1-866-WVUNURS.

Undergraduate Program

The School of Nursing's undergraduate program in nursing is recognized by health-care agencies as providing excellent preparation for the nursing profession. Our graduates are in great demand and enjoy a large number of career opportunities. The B.S.N. curriculum includes courses in the humanities, social sciences, basic sciences, and nursing science. These courses are taken in conjunction with nursing clinical courses that enable students to apply their learning to actual client and family and community situations that warrant nursing intervention. The curriculum has been carefully designed to equip graduates to begin professional nursing practice with clients of all ages in any health care setting where there is a position for the professional nurse at the start of his or her career. The program also provides an excellent foundation for graduate study in nursing and in other fields as well.

The baccalaureate program (B.S.N.) is available for high school graduates who aspire to a career in nursing (basic students) and to registered nurses (R.N.) who are licensed graduates of associate's degree or diploma nursing programs seeking to continue their career development. The basic B.S.N. program can be completed in four years at WVU in Morgantown or at WVU Tech. Consortium programs with Glenville State College and Potomac State College allow students to complete the first two years at those schools. Glenville students complete the program at WVU Tech; WVU Potomac State students complete the program in Morgantown.

Registered nurses can complete the B.S.N. requirements at WVU in Morgantown, at WVU Tech, or at WVU in Parkersburg. Nursing courses for R.N. students are offered at a rate of three to 11 credit hours per semester and are scheduled to provide opportunity for completion of degree requirements in two to three semesters. Credit may be earned by enrollment, the College Entrance Examination Board Advanced Placement Program, and advanced standing examination.

In keeping with the University's commitment to the West Virginia Rural Health Education Partnerships (WVRHEP) program and to improving health care for all West Virginians, all health sciences students in state-supported schools complete a rural clinical practice requirement of at least three months' duration as part of degree requirements. Nursing students complete the rural clinical practice requirement during their senior year.

Admission to Basic Program

Admission to the Basic Program is based on a combination of high school grade-point average (unweighted 4.0 scale) and composite ACT or total SAT scores. While preference is given to West Virginia residents, qualified students from other states are encouraged to apply. The following table summarizes the admission requirements.

GPA (Range)	Composite ACT	Total SAT
2.70 – 2.99	22	1030
3.00 – 3.49	21	990
3.50 – 4.00	20	950

In addition, students must have completed the high school credits required by the University:

Units (years)

- 4 English (including courses in grammar, composition, literature)
- 3 Social studies (including U.S. history)
- 3 College preparatory mathematics (algebra I, algebra II, and plane geometry)
- 2 Laboratory science (biology, chemistry, physics, or other courses with a strong laboratory science orientation)

First-Year Basic Student Curriculum

All freshman basic students admitted to the school complete a common curriculum designed to provide the foundation for success in subsequent nursing courses.

First Year

First Semester	Hrs.	Second Semester	Hrs.
CHEM 111	4	CHEM 112	4
PSYC 101	3	ENGL 101	3
SOCA 101 or 105	3	BIOL 102 & 104	4
HN&F 171	3	PSYC 241	3
MATH 126 or Cluster A	3	NSG 110	3
Orientation 101	1	Total	17
Total	17		

Students who have not completed the first-year curriculum by the end of their third semester will be required to transfer out of the School of Nursing.

Transfer Students

Students wishing to transfer into nursing from non-nursing programs must have a GPA of at least 2.5 in all college work attempted. Students with nursing credit from an accredited college or university are eligible for consideration for transfer admission by presenting a record of courses comparable to those required in this curriculum and meeting other School of Nursing admission requirements. These students must provide a statement of good standing from the nursing program in which they are currently enrolled. Acceptance and placement in the program is dependent on the individual's academic record and number of spaces available. Complete applications for transfer, including transcripts, must be received no later than one month before the start of the entering semester. Transfer applications go to: Nursing Secretary, HSC Office of Admissions and Records, 1170 WVU Health Sciences Center North, P.O. Box 9815, Morgantown, WV 26506-9815.

Admission for R.N.–B.S.N. Program

An unrestricted license to practice nursing and a grade-point average of 2.5 or better on all college work attempted are required to be eligible for admission consideration. Acceptance and placement in the program are dependent upon the individual's academic record and the number of spaces available. Application forms for the Morgantown campus may be obtained from: Nursing Secretary, Health Sciences Center Office of Admissions and Records, 1170 WVU Health Sciences Center North, P.O. Box 9815, Morgantown, WV 26506-9815. Application forms for the WVU Tech and WVU Parkersburg sites may be obtained from the Office of Admissions and Records or Department of Nursing at those sites.

Admission Petitions

Students not meeting the minimum admission and transfer requirements for basic and R.N. students as described above may request to be admitted to the school by written petition to the dean.

Academic Standards and Graduation Requirements

To be in good academic standing, students must:

1. Maintain a cumulative grade-point average of 2.5 or better in all college work attempted.
2. Pass all courses with a grade of C or better.

A student who receives a grade of D, F, WU, or W in a required nursing course may repeat that nursing course once. A student may repeat only one nursing course. Students must complete with a grade of C or better, any nursing course in which a grade of D, F, WU, or W has been received. Students who do not maintain a cumulative GPA of 2.5 or better will be placed on probation for one semester. Students on probation who do not raise their cumulative GPA to 2.5 or better after one semester will be dismissed from the School of Nursing. Nursing courses and pre-and co-requisite courses in which students earn a grade of D, F, WU, or W must be repeated prior to the student's progression to the next course/s in the nursing sequence. Students who repeat a nursing course and earn a grade of D, F, WU, or W will be dismissed from the school. Any general education course that is not a pre- or co-requisite of nursing courses and in which a grade of D has been earned must be repeated prior to graduation if it is to be counted toward graduation requirements. The baccalaureate of science in nursing degree is conferred upon completion of 136 hours and all required courses.

Curriculum for the Basic Student B.S.N. Suggested Plan of Progression (Morgantown)

First Year

See first-year basic student curriculum on pg. 108

Second Year

First Semester	Hrs.	Second Semester	Hrs.
NSG 221	3	NSG 241	2
NSG 223	1	NSG 243	2
NSG 225	3	NSG 245	4
ANAT 301	4	PSIO 241	4
MBIM 200	3	PCOL 260	3
ENGL 102	3	NSG 361	3
Total	17	Total	18

Third Year

First Semester	Hrs.	Second Semester	Hrs.
NSG 332	5	NSG 351	2
NSG 333	2	NSG 353	2
NSG 335	5	NSG 355	5
Cluster A/B	3	NSG 356	3
STAT 211	3	NSG 369W	1
Cluster A/B	3-6	Cluster A/B	3-6
Total	21-24	Total	16-19

Fourth Year

First Semester	Hrs.	Second Semester	Hrs.
NSG 421	3	NSG 441	3
NSG 423	2	NSG 443	2
NSG 425	6	NSG 445	6
NSG 476	3	NSG 493 (NCLEX Review)	1
NSG 493 (NCLEX Review)	1	Cluster A	3
Cluster A	3	Total	15
Total	18		

The sequence of courses may vary from campus to campus. Certification in school health nursing is available to all students who meet additional course and experiential requirements.

Curriculum for the Registered Nurse Student

The associate's degree graduate will transfer in 50 hours of lower-division undifferentiated nursing credit. Diploma school graduates may earn up to 50 hours of credit by successfully passing selected examinations with a grade of C or better. If a grade of C is not achieved, a specific individual remediation plan will be developed. Any remediation plan must be satisfactorily completed prior to enrollment in upper-division nursing courses. A minimum of 30 hours of general education courses that meet the University Liberal Studies Program and School of Nursing requirements should be completed before enrolling in the first nursing courses. All R.N. students must establish credit by enrollment, challenge, or acceptable CLEP examinations in the following courses.

Curriculum Requirements	Hrs.
English 101 and 102	6
Statistics	3
Cluster A	12
Cluster B	12
Cluster C	12

Cluster B must include psychology, growth and development, and a sociology course. Cluster C may be selected from chemistry, biology, nutrition, anatomy, physiology, microbiology, pharmacology, and computer science. At least one course must include a laboratory.

Completion of additional general education courses beyond the 30 hours is recommended prior to beginning nursing courses if the R.N. student wishes to carry a part-time course load.

The purpose of the first nursing courses is to facilitate transition into professional nursing. Special emphasis is placed on socialization into this role and the expectations of the role. All R.N. students are required to enroll in the following nursing courses:

NSG 361 <i>Health Assessment</i>	NSG 369 <i>Writing in Nursing</i>
NSG 340 <i>Professional Role Transition</i>	NSG 476 <i>Introduction to Research</i>
NSG 343 <i>Seminar 7 Professional Role Development</i>	NSG 433 <i>Seminar 8</i>

Seminar 8 is taken with or following NSG 421-445. R.N. students may establish credit by enrollment or challenge examination for:

NSG 421 <i>System Responses to Physiological Dysfunction</i>	NSG 425 <i>Nursing Interventions 5</i>
NSG 441 <i>Community Response to Health Promotion</i>	NSG 445 <i>Nursing Interventions 6</i>

An unrestricted West Virginia R.N. license is required for enrollment in all nursing courses.

R.N.–B.S.N. Suggested Progression

Progression will vary depending on the amount of non-nursing courses that must be completed, whether the student wishes to be part-time or full-time, and when courses are offered. This progression plan is projected on the basis that all non-nursing requirements have been completed.

<i>First Year</i>		<i>Second Semester</i>	
First Semester	Hrs.	Second Semester	Hrs.
NSG 340	3	NSG 343	2
NSG 361	3	NSG 433	3
NSG 369W	1	NSG 476	3
Total	7	Total	8

<i>Senior Year*</i>		<i>Second Semester</i>	
First Semester	Hrs.	Second Semester	Hrs.
NSG 421	3	NSG 441	3
NSG 425	6	NSG 445	6
Total	9	<i>(Rural Health Rotation)</i>	
		Total	9

*Based on background and experience, the R.N. student may establish credit by examination for all senior year courses except NSG 476 and 433. A written examination is used for NSG 421 and 441. A portfolio is used to establish credit for NSG 425 and 445. Only those students who have prior experience in the content areas covered by these courses are eligible to use the credit by examination option. Further details of the R.N.–M.S.N. and B.S./B.A.–B.S./M.S.N. programs are available on the School of Nursing web page at www.hsc.wvu.edu/son.

Graduate Programs

The School of Nursing offers programs of study leading to the master of science in nursing (M.S.N.) and doctor of science in nursing (D.S.N.).

Master of Science in Nursing

The functional areas of study available in advanced practice nursing are family nurse practitioner, oncology advanced practice, and nurse educator. The school also offers post-graduate family nurse practitioner and oncology practitioner certification programs for those who already have an M.S.N.. The programs are offered at the West Virginia University Health Sciences Center main campus in Morgantown and at the Health Sciences Center Division in Charleston. Courses are offered using a variety of media including: interactive television, web-based modalities, and face-to-face meetings.

The master's program offers a curriculum that allows students to enroll on a part-time or full-time basis. Throughout the curriculum, students are guided in the processes 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 and participation in a guided research experience.

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 44-credit program can be completed in four semesters, including a summer session of full-time study. The average full-time load is nine to 12 credit hours per semester. Completion of the program in part-time study includes six semesters and two summer sessions. The average part-time load is three to six credits.

Master's-level education in nursing prepares clinicians and educators capable of leadership in developing and expanding nursing knowledge, skills, and practice competencies. Preparation at the master's level provides the opportunity for students to demonstrate self-direction and effective interactions with other health professionals in promoting and restoring health.

Graduates meet all requirements to sit for the national certification examination in their specialty area of family nurse practitioner or oncology advanced practice. 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.

Graduates of the nursing education track are prepared to plan and direct the learning activities of individuals and groups in classroom and clinical settings. They have appropriate advanced practice skills as well as beginning instruction expertise.

Goals of the Master's Program

1. Synthesizes theories, research findings, and broad-based perspectives for application in the advanced practice of nursing.
2. Utilizes systematic inquiry and refined analytical skills in the provision of health-care services.
3. Creates a relationship with clients that builds and maintains a supportive and caring partnership.
4. Articulates viewpoints and positions in order to improve the quality of health-care delivery and outcomes of successful care.
5. Consults and collaborates in interdisciplinary and interagency endeavors to advance culturally sensitive health care to clients, groups, and communities.
6. Integrates 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 must be completed by June 1. The beginning sequence of courses in the M.S.N. program starts in the fall semester only. Class size may be limited based on available faculty resources and space. Applicants for graduate study 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.
 - a. Application for Admission to Graduate Studies (available from Admissions and Records). To be returned with a non-refundable service fee to: Office of Admissions and Records West Virginia University P.O. Box 6009 Morgantown, WV 26506-6009
 - b. Application for Admission to Graduate Study in the School of Nursing (available from Student Affairs Office in the School of Nursing or School of Nursing Charleston Division offices). Students should be certain that all materials are sent to the appropriate office. WVU School of Nursing, Student Services Office, P.O. Box 9600, Morgantown, WV 26506-9600 or WVU Charleston Division, Office of Student Affairs, 3110 MacCorkle Ave. SE, Charleston, WV 25304-1129.
2. Request an official transcript of records from each college or university attended. Transcripts and records should be sent directly to: WVU Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506-6009 or WVU Charleston Division, Office of Student Affairs, 3110 MacCorkle Ave., SE, Charleston, WV 25304-1129.
3. Send three letters of recommendation directly to: WVU School of Nursing, Student Services Office, P.O. Box 9600, Morgantown, WV 26506-9600 or WVU Charleston Division, Office of Student Affairs, 3110 MacCorkle Ave. SE, Charleston, WV 25304-1129.

The parameters used for review of applicants include: academic achievement, GRE scores, professional experience, essay on career goals, and recommendations.

For more information, write: Assistant Dean for Student Services, West Virginia University School of Nursing, P.O. Box 9600 Morgantown, WV 26506-9600; phone (304) 293-1386.

Admission Requirements

These following criteria must be met for regular admission to graduate study in the School of Nursing.

1. Meet 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 all college work attempted.
3. Have an acceptable score on the Graduate Record Examination (GRE) .
4. Have a current, unrestricted R.N. license in at least one state.
5. Hold the degree of bachelor of science in nursing from a nationally accredited school.

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 that included physical examination skills with a grade of B or better and acceptable for transfer.
8. Submit three letters of reference.
9. Submit a typewritten essay describing professional goals (limited to two typewritten, 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.

Once admitted, the student is assigned to a faculty advisor who provides guidance in curriculum and other academic matters. Enrollment in nursing courses is based upon readiness, availability of space, and other essential resources.

Nursing Core Courses for all Master’s Degree Nursing Students

	Hrs.
Nursing 622 <i>Theory and Critical Analysis</i>	3
Nursing 623 <i>Concepts of Advanced Nursing</i>	2
Nursing 624 <i>Advanced Pathophysiology</i>	4
Nursing 626 <i>Health Promotion Across the Lifespan</i>	2
Nursing 627 <i>Research, Evaluation, and Analysis</i>	5
Nursing 630 <i>Family, Community, Rural Health Systems</i>	2
Nursing 680 <i>Health Policy, Issues, and Ethics</i>	3
Nursing 697 <i>Guided Research Experience</i>	3

Advanced Practice Core Courses

Nursing 625 <i>Primary Care: Rural Families I</i>	3
Nursing 631 <i>Advanced Pharmacology</i>	3
Nursing 635 <i>Primary Care: Rural Families II</i>	4

FNP Advanced Practice Practicum Courses

Nursing 661 <i>Rural Family Health Practicum I</i>	5
Nursing 662 <i>Rural Family Health Practicum II</i>	5

Education Track Core and Practicum Courses

Nursing 625 <i>Primary Care: Rural Families I</i>	3
Nursing 635 <i>Primary Care: Rural Families II</i>	4
Nursing 670 <i>Curriculum in Nursing</i>	3
Nursing 671 <i>Clinical Practicum: Educators</i>	2
Nursing 672 <i>Education Practicum</i>	5
Nursing 674 <i>Teaching in Nursing</i>	3

Oncology Advanced Practice Courses

These courses are under development. Contact the School of Nursing for further information.

Full-Time and Part-Time Progression Plans for Family Track

First Year (full-time)

Fall Semester	Hrs.	Spring Semester	Hrs.
NSG 622 <i>Theory*</i>	3	NSG 627 <i>Research*</i>	5
NSG 623 <i>Concepts*</i>	2	NSG 625 <i>Primary Care I*</i>	3
NSG 624 <i>Adv. Patho.**</i>	4	NSG 626 <i>Promotion**</i>	2
Total	9	Total	10

<i>Summer I</i>	
NSG 630 <i>Rural Fam.*</i>	2
NSG 631 <i>Adv. Pharm.*</i>	3
Total	5

<i>Second Year (full-time)</i>	
Fall Semester	Hrs.
NSG 635 <i>Primary Care II</i>	4
NSG 661 <i>Practicum I</i>	5
NSG 697	1
Total	10

<i>Spring Semester</i>	
NSG 662 <i>Practicum II</i>	5
NSG 680 <i>Policy*</i>	3
NSG 697	2
Total	10

<i>First Year (part-time)</i>	
Fall Semester	Hrs.
NSG 622 <i>Theory*</i>	3
NSG 623 <i>Concepts*</i>	2
Total	5

<i>Spring Semester</i>	
NSG 627 <i>Research*</i>	5
NSG 626 <i>Promotion**</i>	2
Total	7

<i>Summer I</i>	
NSG 630 <i>Rural Fam.*</i>	2
Total	2

<i>Second Year (part-time)</i>	
Fall Semester	Hrs.
NSG 624 <i>Adv. Patho.**</i>	4
NSG 697 <i>Research</i>	3
Total	7

<i>Spring Semester</i>	
NSG 625 <i>Primary Care I*</i>	3
NSG 680 <i>Policy*</i>	3
Total	6

<i>Summer I</i>	
NSG 631 <i>Adv. Pharm.*</i>	3
Total	3

<i>Third Year (part-time)</i>	
Fall Semester	Hrs.
NSG 635 <i>Primary Care II*</i>	4
NSG 661 <i>Practicum I</i>	5
Total	9

<i>Spring Semester</i>	
NSG 662 <i>Practicum II</i>	5
Total	5

Full-Time and Part-Time Progression Plans for Education Track

<i>First Year (full-time)</i>	
Fall Semester	Hrs.
NSG 622 <i>Theory*</i>	3
NSG 623 <i>Concepts*</i>	2
NSG 624 <i>Adv. Patho.**</i>	4
Total	9

<i>Spring Semester</i>	
NSG 627 <i>Research*</i>	5
NSG 625 <i>Primary Care I*</i>	3
NSG 626 <i>Promotion**</i>	2
Total	10

<i>Summer I</i>	
NSG 630 <i>Rural Fam*</i>	2
NSG 670 <i>Curriculum*</i>	3
Total	5

Second Year (full-time)

Fall Semester	Hrs.
NSG 635 <i>Primary Care II*</i>	4
NSG 674 <i>Teaching*</i>	3
NSG 697	3
Total	10

Spring Semester	Hrs.
NSG 671 <i>Clinical Practicum</i>	2
NSG 680 <i>Policy*</i>	3
NSG 672 <i>Ed. Practicum</i>	5
Total	10

First Year (part-time)

Fall Semester	Hrs.
NSG 622 <i>Theory*</i>	3
NSG 623 <i>Concepts*</i>	2
Total	5

Spring Semester	Hrs.
NSG 627 <i>Research*</i>	5
NSG 626 <i>Promotion**</i>	2
Total	7

Summer I

NSG 630 <i>Rural Fam.*</i>	2
Total	2

Second Year (part-time)

Fall Semester	Hrs.
NSG 624 <i>Adv. Patho.**</i>	4
NSG 697 <i>Research</i>	3
Total	7

Spring Semester	Hrs.
NSG 625 <i>Primary Care I*</i>	3
NSG 680 <i>Policy*</i>	3
Total	6

Summer I

NSG 670 <i>Curriculum*</i>	3
Total	3

Third Year (part-time)

Fall Semester	Hrs.
NSG 635 <i>Primary Care II</i>	4
NSG 674 <i>Teaching*</i>	3
Total	7

Spring Semester	Hrs.
NSG 671 <i>Clinical Practicum</i>	2
NSG 672 <i>Ed. Practicum</i>	5
Total	7

*Interactive television

** Web-based

Post-Graduate Certificate Program

The post-graduate nurse practitioner certificate program requires a minimum of 17 credit hours. The program prepares master's level nurses to sit for the national certification examination as a family nurse practitioner or oncology practitioner.

To be considered for admission, the applicant must have a master's degree in nursing from a nationally accredited program with a minimum cumulative GPA of 3.0 or better and an unrestricted R.N. license in at least one state. Students in the post master's 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. Prerequisites to registration for the four required clinical courses in the program are evidence of competence in the following three areas: advanced physiology/pathophysiology, applied therapeutics (pharmacology), and physical examination skills.

The four required courses for post-master's certification as a family nurse practitioner are:

Required Courses	Hrs.
NSG 625 <i>Primary Care for Rural Families I</i>	3
(Competency exam for exemption)	
NSG 635 <i>Primary Care for Rural Families II</i>	4
NSG 661 <i>Rural Family Health Practicum I</i>	5
NSG 662 <i>Rural Family Health Practicum II</i>	5
Total	17

All students in this program will complete a minimum of 600 supervised clinical hours. Oncology advanced practice courses are under development.

Doctor of Science in Nursing Program

The purpose of the D.S.N. program is to prepare nurse scholars/educators for roles in teaching, service, and research in nursing. The program prepares graduates who will advance the development of knowledge in significant life transitions, empowerment, and health system outcomes that will improve health for diverse populations. The goals of the program are to prepare graduates who:

1. Provide leadership to impact health-care delivery and nursing education systems.
2. Design and implement nursing research that advances evidence-based practice.
3. Advance the quality of nursing through assuming the full academic role in nursing education.
4. Collaborate across professional, disciplinary, and institutional boundaries to promote, protect, and improve health.

Degree Requirements

Three curricular components comprise the 54 credits of post-master's coursework. These are core, cognate/electives, and dissertation. The core nursing component is offered in Morgantown during six-week summer sessions.

Core (21 Credits)

NSG 726 <i>Research Methods I</i>	3
NSG 727 <i>Contemporary Nursing Science</i>	3
NSG 728 <i>Theoretical Basis of Nursing</i>	3
NSG 729 <i>Research Methods II</i>	3
NSG 734 <i>Use of Data</i>	3
NSG 735 <i>Principles: Nursing Education</i>	3
NSG 737 <i>Leadership</i>	3

Cognate/Electives (18 Credits)

Advanced Statistics Cognate	3
Multi-Variate Statistics Cognate	3
Education Cognate	3
Additional Cognates	9

Dissertation (15 Credits)

NSG 781 <i>Research Mentorship I</i>	1
NSG 782 <i>Research Mentorship II</i>	1
NSG 783 <i>Dissertation Seminar I</i>	2
NSG 784 <i>Dissertation Seminar II</i>	2
NSG 797 <i>Dissertation</i>	9

Additional requirements include three examinations: preliminary examination after 18 credits of coursework, comprehensive examination after completion of all core and cognate/elective coursework, and dissertation oral examination.

Application Requirements

The following information is required for a complete application record:

1. A current curriculum vita.
2. Transcripts of undergraduate and master's degrees from nationally accredited nursing programs.
3. Report of the Graduate Record Examination.
4. Evidence of current registered nurse license.
5. Evidence demonstrating expertise in the advanced practice of nursing.

6. Three letters of reference that address the applicant's: a) expertise in the advanced practice of nursing, b) skill in research and scholarly writing, and 3) likelihood for success in doctoral work. One letter should be from a former professor of the applicant.
7. Two two-page scholarly essays, one describing the applicant's research interests and one describing the applicant's career goals.
8. An example of scholarly work, which may be a research paper, master's thesis, or a publication.
9. Evidence of basic computer literacy.

Admission Criteria

The following criteria will be used in determining admission to the program:

1. Cumulative grade-point average of 3.0 of four points in master's degree work.
2. Satisfactory achievement on the Graduate Record Examination.
3. A grade of B or higher in graduate statistics and research courses.
4. Congruence between the applicant's career goals and program objectives and between the applicant's research interests and those of the faculty.

Summer Curriculum: D.S.N. Program

First Year

Summer I	Hrs.
NSG 726 <i>Res. Meth I</i>	3
NSG 728 <i>Theoretical</i>	3
Total	6

Fall Semester	Hrs.
Statistics Cog.	3
Visiting Scholar Lecture	
Total	3

Spring Semester	Hrs.
Statistics Cog.	3
Visiting Scholar Lecture	
Total	3

Second Year

Summer II	Hrs.
NSG 727 <i>Contemp</i>	3
NSG 729 <i>Res. Meth II</i>	3
Total	6

Second Year

Fall Semester	Hrs.
Cognate	3
Visiting Scholar Lecture	
Total	3

Spring Semester	Hrs.
Ed Cognate.....	3
Visiting Scholar Lecture	
Total	3

Third Year

Summer III	Hrs.
NSG 734 <i>Use of Data</i>	3
NSG 735 <i>Principles</i>	3
Total	6

Second Year

Fall Semester	Hrs.
Cognate	3
Visiting Scholar Lecture	
Total	3

Spring Semester	Hrs.
Ed Cognate.....	3
Visiting Scholar Lecture	
Total	3

Fourth Year

Summer IV	Hrs.
NSG 737 <i>Leadership</i>	3
NSG 781 <i>Res Meth I</i>	1
NSG 783 <i>Dis Sem</i>	2
Total	6

Fall Semester	Hrs.
NSG 782 <i>Res Meth II</i>	1
NSG 784 <i>Dis Sem II</i>	2
Total	3

Spring Semester	Hrs.
NSG 797 <i>Dissertation</i>	3-6
Total	3-6

Fifth Year

Summer V	Hrs.
NSG 797 <i>Dissertation</i>	3-6
Total	3-6

Fall Semester	Hrs.
NSG 797 <i>Dissertation</i>	3-6
Total	3-6

School of Pharmacy

George R. Spratto, Ph.D., Dean

Carl J. Malanga, Ph.D., Associate Dean for Academic Affairs

W. Clarke Ridgway, B.S., Assistant Dean for Student Services

Patrick S. Callery, Ph.D., Assistant Dean for Research and Graduate Programs

www.hsc.wvu.edu/sop

Degrees Offered

Doctor of Pharmacy (entry-level or non-traditional)

M.S., Ph.D. in Pharmaceutical Sciences

Introduction

Pharmacy was first offered at West Virginia University as a department in the School of Medicine beginning in 1914. It became the College of Pharmacy in 1936 and the School of Pharmacy in 1958. In 1960, the School of Pharmacy changed from a four-year to a five-year program and in 1998 to a six-year program. The entry-level Doctor of Pharmacy (Pharm.D.) program comprises four years of professional study preceded by a minimum of two years of pre-pharmacy study in an accredited college of arts and sciences. The non-traditional Pharm.D. program is comprised of four to six years of part-time coursework. The non-traditional Pharm.D. degree program is offered to persons with a B.S. in pharmacy from an accredited school upon completion of a minimum of 58 semester credits of specific coursework.

A primary objective of the School of Pharmacy is to educate practitioners for current and future roles in the profession of pharmacy. To meet this objective, the curriculum provides the student with the scientific and technical knowledge and communication skills required to practice the profession and imbues in the student a concept of the pharmacist's professional responsibilities as a provider of pharmaceutical care and as a guardian of the public health.

Most pharmacy graduates enter practice in community or institutional pharmacies; however, positions are also available in various government agencies, the pharmaceutical industry, long-term care, and home health-care organizations. Pharmacists are eligible for commissions in the armed forces and for positions with the U.S. Public Health Service. Pharmacists also may prepare for careers in teaching and research through graduate study.

The WVU School of Pharmacy offers M.S. and Ph.D. programs in the pharmaceutical sciences. Students may specialize in pharmacy, pharmaceuticals, medicinal chemistry, pharmaceutical chemistry, biopharmaceutics/pharmacokinetics, pharmacology, and pharmaceutical systems and policy.

Accreditation

The School of Pharmacy is accredited by the American Council on Pharmaceutical Education. The council is composed of members from the American Pharmaceutical Association, National Association of Boards of Pharmacy American Association of Colleges of Pharmacy, and American Council on Education.

The School of Pharmacy holds membership in the American Association of Colleges of Pharmacy, whose objective is to promote the interests of pharmaceutical education.

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 the dean.

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-eight other states, the District of Columbia, and Puerto Rico provided they meet the licensure requirements of these states.

Entry-Level Pharm.D. Admission

All students seeking enrollment in the School of Pharmacy must comply with regulations appearing in this catalog and the *WVU Undergraduate Catalog*. Students preparing for the study of pharmacy may satisfy the coursework requirements for entrance into the School of Pharmacy entry-level Pharm.D. program by successfully completing the following course selections or their equivalents:

Pre-Pharmacy Requirements Meeting Requirements	WVU Courses	Sem. Hr. Credit
English composition	ENGL 101 and 102	6
Introduction to calculus	MATH 150 (MATH 155)	3 (4)
Principles of microeconomics	ECON 201	3
General biology	BIOL 115 and 117	8
General chemistry	CHEM 115 and 116	8
Organic chemistry	CHEM 233/235 and 234/236	8
Physics	PHYS 101 and 102	8
Introduction to statistics	STAT 211 or ECON 225	3
General microbiology	MBIO 200 (ENVM 241)	3 (4)
General communications	COMM 100 and 102	3
Electives*		18
Total		71-73

*Electives must be designed to satisfy the University Liberal Studies Program requirements. (See "Liberal Studies Program" for a listing of specific courses.) Cluster A—12 hrs.; Cluster B—six hrs.; in addition to Economics 54 and Communications 11 and 12. One of these 3 credit hour electives from either Cluster A or B must focus on a foreign or minority culture or gender studies.

Because limited openings are available in the school's professional degree program, preference in admissions is given to qualified West Virginians, although nonresident applicants are considered. 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.

Admissions are competitive and are based on the academic grade-point average for specific School of Pharmacy requirements, the cumulative academic grade-point average achieved in all prior college courses, results of the Pharmacy College Admissions Test (PCAT), a personal interview, writing sample, and recommendations describing academic performance, as well as extracurricular activities, work experience, volunteerism, etc. A required course in which a grade of D was received must be repeated with a grade of C or better before acceptance can be considered by the School of Pharmacy committee on admissions.

Applicants should write to the Office of Admissions and Records, Robert C. Byrd Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815 for official application forms, which will be made available after November 1 of each year. The forms should be returned to that office by January 15 for priority consideration preceding the fall semester in which the student seeks enrollment. Formal applications received after the February 15 deadline will be considered only when vacancies exist. A \$30 application fee is required and must accompany the application.

Each applicant who is recommended for acceptance is expected to deposit \$100 before his or her name is entered upon 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

immunizations and diagnostic procedures required by the University of West Virginia System Board of Trustees, West Virginia University, the West Virginia University Robert C. Byrd Health Sciences Center, and/or the School of Pharmacy.

Complete information may be obtained from the Dean of the School of Pharmacy, Robert C. Byrd Health Sciences Center, P.O. Box 9500, Morgantown, WV 26506-9500 or from the Office of Admissions and Records, 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. It is recommended that the student take this test in the 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: The Psychological Corporation, PSE Customer Relations-PCAT, 555 Academic Court, San Antonio, TX 78204-2498; Fax (210) 921-8861.

Personal Interview

The Committee on Admissions requires a personal interview with all candidates seeking admission who have total cumulative and pre-requisite course cumulative GPAs of 2.5 or higher. Interviews are held during the spring semester at the Robert C. Byrd Health Sciences Center in Morgantown or at the Charleston Division Health Sciences Center. Applicants with a total cumulative or pre-requisite course cumulative grade-point average below 2.5 are generally not considered qualified for admission. Applicants should note that past applicant pools have rarely admitted individuals with GPAs below 3.0.

Recommendations on Academic Performance

Three academic recommendations are required, although more may be submitted. At least two of these recommendations must be provided by course instructors in any two of the three pre-pharmacy science areas: biology, chemistry, and physics. The third recommendation may be provided by a course instructor of the student's choice.

Admission to Advanced Standing

If space is available, students from other accredited schools of pharmacy may be admitted, provided they meet the course requirements of the WVU School of Pharmacy, have at least a 2.5 grade-point average, and are eligible for continuation toward a degree in pharmacy at the school initially attended. Grades of D in professional courses can not be transferred.

Conditions Following Acceptance of Admission

An applicant accepted into the first year or with advanced standing is expected to have met all entrance requirements and satisfactorily complete all prepharmacy/pharmacy school work in progress prior to matriculation. A satisfactory performance in the completion of such work is defined as one that is consistent with the student's previous academic record and must include no grades of D or lower in pre-requisite courses. Failure to do so will result in revocation of the acceptance by the admissions committee.

The student must be aware that furnishing or causing to furnish false or incorrect information for the purpose of application to, the School of Pharmacy constitutes grounds for disciplinary action including, but not limited to expulsion or revocation of acceptance.

Students in the School of Pharmacy agree to abide by the provisions of the Student Code of Academic and Professional Integrity. Prior to the start of each academic year, 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 Integrity of the West Virginia University School of Pharmacy. The code and copies of the statement are available in the Office of Student Services in the School of Pharmacy.

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 12 credit hours nor more than 20 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 information which follows is only a brief outline of the School of Pharmacy 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 Doctor of Pharmacy Degree Program at West Virginia University School of Pharmacy. Copies are available through the Office of Student Services. 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 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 grade-point average 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 the 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, and 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 satisfactory/unsatisfactory 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.

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.

Requirements for Degree

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 faculty. 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; (2) satisfactorily complete all 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) complete satisfactorily the required number of experiential rotations and demonstrate the attainment of minimum competencies; and (7) complete 100 hours of volunteer community service.

Special Requirements

Fifteen-hundred clock hours of internship experience are required by the Board of Pharmacy for licensure in West Virginia. Students are required to obtain an Intern Certificate from the West Virginia Board of Pharmacy. Any hours worked before becoming a registered intern will not apply toward meeting the board requirements. Students must have a valid Intern Certificate throughout their entire experiential year of the Pharm.D. program. The certificate must also be maintained until completion of the entire internship. The Board of Pharmacy holds final authority over internship rules and regulations. Up to eight-hundred hours of the total of fifteen-hundred required by the Board of Pharmacy can be obtained upon completion of the fourth professional year of the Pharm.D. program.

Students in the Pharm.D. program will perform eleven four-week blocks of experiential rotations during the final year of the program. Three of the eleven blocks must be performed in designated rural sites. Site placement and sequencing will occur in the semester prior to the experiential year. Students may incur additional housing and/or travel costs during the experiential year. 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 required didactic coursework must be successfully completed prior to beginning the experiential rotations.

Course Changes

A student who seeks credit for a course previously taken to replace a course prescribed in the student's curriculum must submit a written petition to the committee on academic standards.

Entry-Level Pharm.D. Professional Curriculum

First Year

Fall Semester	Hrs.	Spring Semester	Hrs.
ANAT 301	3	BIOC 531	3
PSIO 441	4	PHAR 707	3
PHAR 702	3	PHAR 708	3
PHAR 700	2	PHAR 709	3
PHAR 701	2	PHAR 710	1
Elective *	2-3	PHAR 711	1
Total	16-17	PHAR 712	2
		Total	16

*Students must complete a minimum of ten credit hours of electives in the first three years of the professional program. Of these ten, a minimum of six must be professionally related and selected from an approved list.

Second Year

Fall Semester	Hrs.	Spring Semester	Hrs.
PHAR 715	4	PHAR 724	1
PHAR 716	3	PHAR 725	4
PCOL 743	3	PCOL 744	3
PHAR 720	2	PHAR 726	2
PHAR 723	2	PHAR 727	2
Elective	2-3	PHAR 728	2
Total	16-17	Elective	2-3
		Total	16-17

Third Year

Fall Semester	Hrs.	Spring Semester	Hrs.
PHAR 730	5	PHAR 736	1
PHAR 731	3	PHAR 737	2
PHAR 732	3	PHAR 738	2
PHAR 733	2	PHAR 739	3
PHAR 735	1	PHAR 740	3
Elective	2-3	PHAR 741	3
Total	16-17	Elective	2-3
		Total	16-17

Fourth Year

Experiential Components (Students rotate through)

Community and institutional

pharmacy components *	3 x 4 weeks	=	12 weeks
Acute care	2 x 4 weeks	=	8 weeks
Ambulatory care	1 x 4 weeks	=	4 weeks
Electives**	5 x 4 weeks	=	20 weeks
Total experiential **			44 weeks

*Students will choose which component will be four weeks and which component eight weeks for a total of 12 weeks community and institutional.

**Three of the five four week blocks will be taken from a special listing of selected rotations.

***Fourth-year students will be required to attend both summer I and II semesters.

At the time this catalog was printed, some courses had not yet been submitted to the Faculty Senate for approval. Consult the department for updates.

Prior to graduation each student enrolled in the School of Pharmacy professional program must complete a minimum of ten credit hours of electives as part of the pharmacy curriculum. Electives must be completed during the first three years of the four-year professional program. At least six of the ten required elective hours must be professionally related and chosen from a list of approved courses. Beyond the required ten credit hours, the student may take any other electives. 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.

The University pass/fail policy will be followed. Only *Pharmaceutical Investigations* (first offering up to three hours), or additional free electives (in excess of the ten hours of required electives) may be taken on a pass/fail (or satisfactory/unsatisfactory) basis. No more than three credit hours of *Pharmaceutical Investigations* will be permitted to count toward fulfillment of the pharmacy elective requirements.

Non-Traditional Doctor of Pharmacy Program

The non-traditional doctor of pharmacy (Pharm.D.) degree is awarded to persons with a B.S. in pharmacy from an accredited school upon completion of a minimum of 58 semester credits of specific coursework.

The Pharm.D. curriculum offered in the traditional classroom setting has been adapted for the Non-Traditional Doctor of Pharmacy Program into a structured learning format which includes: learning objectives, readings and written assignments, videotaped lectures, case studies, audiovisual aids, scheduled contact sessions with the coordinator and instructors as needed and exams administered by proctors located in the same geographic area as the student. With the exception of four credit hours, the didactic work will be provided through the University of Kentucky. All experiential work will be handled through West Virginia University. All work can be completed off-campus except for a required annual meeting.

Students enrolled in the program must have completed a basic statistics course within the last five years.

Required Courses	Hrs.
<i>Drug Literature Evaluation</i>	3
<i>Disease Processes I</i>	5
<i>Disease Processes II</i>	4
<i>Clinical Pharmacokinetics</i>	4
<i>Applied Therapeutics I</i>	5
<i>Applied Therapeutics II</i>	5
<i>Patient Assessment</i>	2
<i>Pharmacy Practice Development</i>	2

The didactic portion of the program takes approximately three calendar years to complete. The coursework is not self-paced. There is a schedule of exams with each course and dates as to when homework will be due. Proctors for exams will be nominated by each individual student.

Clerkship experiences may take from one to two additional years to complete. The experiential component will consist of seven rotation blocks of 160 contact hours each. The block requirements include:

Ambulatory care	2 blocks
Acute care	2 blocks
Electives	3 blocks

A single rotation should normally be completed in four weeks but can be completed in eight weeks on a half-time basis. Students may apply for clerkship credit for up to three rotation blocks based on their ability to demonstrate competency in each rotation for which they are requesting a waiver. Clerkship experiences are mutually agreed upon between the student and the program coordinator at approved sites. Whenever possible, clerkship sites are established at commutable distances from the student's home. Although students may be employed at approved clerkship sites, two rotations must be completed at a different location.

Non-traditional Pharm.D. students have a maximum of six years to complete the program. Courses will be offered in the non-traditional format only once a year. Students who withdraw from courses with permission may have to sit out for a full academic year before restarting the program.

Note: Tuition for the non-traditional Pharm.D. is currently \$421 per credit hour for West Virginia residents for didactic courses. All fees are subject to change.

Graduate Programs Pharmaceutical Sciences

The School of Pharmacy offers graduate programs in the pharmaceutical sciences aimed at educating competent researchers and teachers. Programs for the degree of master of science (M.S.) and doctor of philosophy (Ph.D.) provide flexible, research-oriented curricula designed to develop the interests, capabilities, and potential of the individual student.

Admission Requirements

Applicants for admission into the graduate program must satisfy the WVU general requirements for admission as graduate students. The applicant must possess a baccalaureate degree with a background in a suitable area of study, an overall grade-point average of at least 2.75, and the aptitude and interest for graduate work in the pharmaceutical sciences in order to be admitted with regular student status. Applicants not meeting criteria for admission with regular student status will be considered for admission under alternate admission classifications as explained in Part 2 of the *WVU Graduate Catalog*. In addition, Graduate Record Examination (GRE) scores in the verbal, quantitative, and analytical portions are required from all students except for applicants in the area of pharmaceutical systems and policy, where test scores on the Graduate Management Admissions Test (GMAT) are acceptable. TOEFL, or similar scores, are required of international students.

Academic Standards

No credits are acceptable toward a graduate degree with a grade lower than a C. A graduate student must have a cumulative grade-point average of at least 3.0 for all graduate courses to qualify for the degrees.

Doctor of Philosophy (Ph.D.)

The School of Pharmacy offers programs of study leading to the doctor of philosophy (Ph.D.) degree in the pharmaceutical sciences. Specialty areas of study include medicinal chemistry, pharmaceuticals, biopharmaceuticals/pharmacokinetics, pharmaceutical systems, and policy.

Requirements for Ph.D. Degree

The student's first semester is usually occupied with coursework while he or she is under the guidance of an interim faculty advisor or committee. During this time, each student will confer with faculty members in the department concerning the research project. A major professor should be chosen by the end of the first semester of graduate study. The student's research committee should be chosen by the end of the first year of study (18-20 hours of graduate coursework). The interest to pursue the M.S. en route to the Ph.D. degree should also be stated at this time. It is not necessary for all students to complete all requirements for the M.S. degree in order to qualify for admission into the Ph.D. program, although the student, with committee advice, may elect to complete the requirements for this degree in progress toward the Ph.D. Students bypassing the M.S. must meet all requirements for the M.S., except for preparing and defending a thesis.

Each student must submit a formal plan of study and research plan to the Health Sciences Center graduate council.

Progress will continue with guidance from the research committee, and by the end of the second year the student should have completed the language/research tool requirements.

To be admitted to candidacy for the Ph.D. degree, the student must satisfy the above requirements and pass oral and written qualifying examinations.

After admission to candidacy, a substantial part of the program is devoted to an original research project which culminates in a dissertation. To be recommended for a Ph.D., the dissertation must be satisfactorily completed and defended at an oral examination.

Master of Science (M.S.)

The same program requirements for the first year of graduate study are required of the M.S. degree student as those described for the Ph.D. student. The School of Pharmacy offers programs of graduate study leading to the degree of master of science (M.S.) in the pharmaceutical sciences. Students may specialize in pharmacy administration, pharmacology and toxicology, pharmaceutical chemistry, industrial pharmacy, medicinal chemistry, pharmaceuticals, biopharmaceuticals, and pharmacokinetics.

Requirements for M.S. Degree

To be eligible for the M.S. degree, the student must complete a minimum of 30 hours of graduate credit, of which no more than six hours may be for research and thesis. Upon completion of the coursework and research requirements and after submission of the thesis, an oral examination will be administered by the appointed examination committee.

For more specific information, contact the Assistant Dean for Research and Graduate Programs, School of Pharmacy, P.O. Box 9500, Morgantown, WV 26506-9500.

Graduate Council policy requires that any student in a master's program has a minimum of 24 hours of "regular coursework." *A minimum of 24 hours of coursework other than thesis credit is standard and a minimum of 30 total hours is also standard.*

Courses

Plan for Numbering Courses

For convenience, each course of study is designated by the name of the department in which it is given and by the number of that course. The plan for numbering courses is as follows:

Courses 1-99 Courses intended primarily for freshman and sophomores.

Courses 100-199 Courses intended primarily for juniors and seniors.

Courses 200-299 Courses for advanced undergraduate students and selected graduate students. No more than 40 percent of the credits counted for meeting requirements for a graduate degree can be at the 200 level.

Courses 300-399 Courses for graduate students, students in professional programs leading to a doctorate, and selected advanced undergraduates. Undergraduates in any class carrying a 300-level course number must have a 3.0 cumulative grade-point average and written approval on special forms from the instructor and the advisor. Seniors within 12 semester hours of graduation may, with prior approval of their advisors, enroll in 300-level graduate courses for graduate credit.

In summary, 200-level courses are intended primarily to serve undergraduate students; 300-level courses are intended primarily to serve introductory graduate degrees' course needs.

Courses 391 *Advanced Topics* and **397** *Master's Degree Research or Thesis*:

Courses are approved for University-wide use by any academic unit. These courses may be graded S or U.

Courses 400-499 Courses for graduate students only. All doctoral degree dissertation hours are awarded at the 400-level, specifically under course number 497. Courses numbered 497 may be graded S or U.

Courses 492-495 Courses are approved by the assistant vice president for curriculum and instruction. Approved requests are forwarded to the Office of Admissions and Records for entry into the WVU *Schedule of Courses*. Graduate degree credit-hour requirements must include at least 60 percent at the 300 and 400 level.

Abbreviations Used in Course Listings

I	a course given in the first (fall) semester
II	a course given in the second (spring) semester
I, II	a course given each semester
I and II	a course given throughout the year
Yr	a course continued through two semesters
S	a course given in the summer
Hr	credit hours per course
lec	lecture period
rec	recitation period
lab	laboratory period
Conc	concurrent registration required
PR	prerequisite
Coreq	corequisite
consent	consent of instructor required
CR	credit but no grade

An asterisk (*) following credit hours listed as variable indicates that the course normally carries three credit hours. Exceptions are made only in emergencies and must be approved by the departmental chair and by the professor teaching the course.

Undergraduate Common Course Numbers and Descriptions

199. *Orientation to* [subject/field]. 1Hr. Orientation to degree programs and requirements, departmental resources, curriculum options, student responsibilities, and opportunities.

293. *Special Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

490. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Teaching practice as a tutor or assistant.

491. *Professional Field Experience*. I, II, S. 1-18 Hr. PR: Consent (may be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

492. *Directed Study*. I, II, S. 1-3 Hr. Directed study, reading, and or research.

493. *Special Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

494. *Seminar*. I, II, S. 1-3 Hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

495. *Independent Study*. I, II, S. 1-6 Hr. Faculty-supervised study of topics not available through regular course offerings.

496. *Senior Thesis*. I, II, S. 1-3 Hr. PR: Consent.

497. *Research*. I, II, S. 1-6 Hr. Independent research projects.

498. *Honors*. I, II, S. 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.

Graduate-Level Common Course Numbers and Descriptions (as approved by the Faculty Senate)

The following courses are approved for University-wide use by any academic unit, thus any school or college may elect to offer these courses for its students. NOTE: Undergraduate students may register for 500-level courses only after filing a senior petition with their advisor or college. Undergraduate students may not register for 600 or 700-level courses.

590/690/790. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Supervised practice in college teaching of [subject/field]. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. Grading will be S/U.

591/691/791. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

592/692/792. *Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and or research

593/693/793. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

594/694/794. Seminar. I, II, S. 1-6 Hr. Seminars arranged for advanced graduate students.

595/695/795. Independent Study. I, II, S. 1-6 Hr. Faculty-supervised study of topics not available through regular course offerings.

696/796. Graduate Seminar. I, II, S. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program

697/797. Research. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. Grading may be S/U.

698/798. Thesis or Dissertation. I, II, S. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, theses, or dissertations. Grading may be S/U.

699/799. Graduate Colloquium. I, II, S, 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs. Note: Graduate students not actively involved in coursework or research are entitled, through enrollment in their department's 699 or 799 Graduate Colloquium, to consult with graduate faculty, participate in formal and informal academic activities sponsored by the program, and retain all of the rights and privileges of duly-enrolled students. Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.

General Comment

Graduate Council policy requires that any student in a master's program has a minimum of 24 hours of "regular coursework." *A minimum of 24 hours of coursework other than thesis credit is standard and a minimum of 30 total hours is also standard.*

Course Descriptions

School of Dentistry

Professional, Graduate, and Undergraduate Courses

Each course is designated by the name of the department teaching it, its number and title, the semester in which it is offered, and hours of credit. Generally, those courses given in the first year are numbered 700–724; second year, 725–749; third year, 750–774; and fourth year, 775–799. Elective opportunities are offered to students during the fourth year of study. (See courses 794 and 797.) Other University courses may be taken with the approval of the student's advisor and the associated dean for academic affairs. Courses offered by the School of Dentistry have either a prefix DENT for dentistry, ENDO for endodontics, ORTHO for orthodontics, or DTHY for dental hygiene. Courses included in the curriculum but offered by other colleges, schools, or departments may be located elsewhere in this catalog or in the *WVU Graduate Catalog*.

Dental Hygiene (DTHY)

101. *Orientation to Dental Hygiene*. 2 Hr. PR: Enrollment in Dental Hygiene. Historical development of dental hygiene with emphasis on the philosophy, responsibilities, and current role of the dental hygienist as a member of the dental health team.

166. *Technical Expression and Dental Literature*. 1 Hr. PR: Enrollment in Dental Hygiene. Preparation and analysis of professional communication.

185. *Oral Anatomy*. 3 Hr. PR: Enrollment in Dental Hygiene. Human teeth and the anatomy of the head and neck with emphasis on structures in or related to oral cavity.

205. *The Theory and Practice of Prevention*. 2 Hr. PR: Enrollment in Dental Hygiene. Philosophy and techniques of preventive dentistry.

220. *Dental Nursing Techniques*. 1 Hr. PR: Enrollment in Dental Hygiene. Emergency first aid and principles of nursing applicable to the dental office.

225. *Dental Hygiene Technique*. 4 Hr. PR: Enrollment in Dental Hygiene. Fundamental principles and techniques of dental hygiene are presented through lectures, laboratory, and clinical participation.

293. *Special Topics*. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

301. *Public Health*. 2 Hr. PR: Enrollment in Dental Hygiene. Theory and practice of preventive dentistry and community.

302. *Dental Health Education*. 3 Hr. PR: Enrollment in Dental Hygiene. Methods, materials, and resources used in teaching dental health to various population groups.

320. *Dental Radiology*. 2 Hr. PR: Enrollment in Dental Hygiene. Basic principles and procedures in oral radiology technics and interpretation.

322. *Dental Radiology*. 1 Hr. PR: DTHY 320. The application of radiology principles and techniques. Clinical integration and case presentations will be emphasized.

360. *Dental Materials*. 3 Hr. PR: Enrollment in Dental Hygiene. Lecture and laboratory covering the science and manipulation of dental materials.

361. *Expanded Functions*. 2 Hr. PR: DTHY 360. Lecture and laboratory covering specialty topics in dentistry and four-handed dental assisting. Assisting and the placing and carving of amalgam and resin restorations in dentiform teeth. (1 hr. lec., 4 hr. lab.)

363. *Periodontics 1*. 1 Hr. PR: Enrollment in Dental Hygiene. Tissues of the periodontium, histopathology of periodontal disease with emphasis on etiology, assessment, diagnosis, treatment, and prevention within the scope of dental hygiene.

364. *Periodontics 2*. 2 Hr. PR: DTHY 363. A sequential course to DTHY 363.
370. *Dental Hygiene Clinical Methods*. 2 Hr. PR: DTHY 225. Principles of oral debridement, instruction in the care of special patients, use of diagnostic aids, and nutritional counseling.
372. *Clinical Dental Hygiene 1*. 2 Hr. PR: DTHY 225. Clinical application of dental hygiene principles and techniques.
374. *Clinical Dental Hygiene 2*. 2 Hr. PR: DTHY 370, Coreq: DTHY 372. Clinical application of dental hygiene principles and techniques.
378. *Dental Hygiene Teaching Methods*. 2 Hr. PR: Enrollment in Dental Hygiene. Concepts and principles of administration, curriculum, and clinical teaching unique to dental auxiliary education. Emphasis on overall role of the dental hygiene educator.
380. *Interdisciplinary Approach to Rural Health*. 2 Hr. Fundamental principles of and background information on Appalachian history, poverty, and cultural diversity for the assessment of rural health needs. Assess the delivery of health care services and community development in rural settings.
402. *Dental Hygiene Practice*. 2 Hr. PR: Enrollment in Dental Hygiene. Scope of practice for the dental hygienist including ethical and legal considerations. Public and professional relations as well as practice management are discussed.
404. *Advanced Dental Hygiene Methods 1*. 1 Hr. PR: Fourth year in Dental Hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings.
405. *Advanced Clinical Dental Hygiene 1*. 4 Hr. PR: Fourth year in Dental Hygiene. Clinical experience in traditional and expanded duties; pre- and post-operative care of surgical patients and radiology.
406. *Advanced Clinical Dental Hygiene 2*. 3-4 Hr. PR: Fourth year in Dental Hygiene. Continuation of clinical practice experience in dental hygiene procedures.
407. *Advanced Dental Hygiene Methods 2*. 1 Hr. PR: Fourth year in Dental Hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings.
450. *Dental Health Education 2*. 2 Hr. PR: DTHY 302. Advanced dental health education with a research component. A problem-based learning experience.
451. *Dental Health Education 3*. 2 Hr. PR: DTHY 450. Advanced dental health education with field experiences in three settings. Case histories developed and research study completed.
490. *Teaching Practicum*. 1-3 Hr. Teaching practice as a tutor or assistant.
491. *Professional Field Experience*. 1-18 Hr. PR: Consent (May be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.
493. *A-Z Special Topics*. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.
494. *Seminar*. 1-3 Hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.
496. *Senior Thesis*. 1-3 Hr. PR: Consent.
498. *Honors*. 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.
- Dentistry (DENT)**
700. *Anesthesiology*. 1 Hr. Lectures on local anesthesia, including types, modes of action, indications, and contraindications for use. Premedication, toxic effects, and technics of administration are discussed.
701. *Arts and Sciences of Dentistry*. I. 1 Hr. An overview of the practice of dentistry including the basis of oral disease, ethical considerations, and practice options.

703. *Oral Diagnostic and Roentgenology*. 2 Hr. Lectures and laboratory exercises introduce and stress fundamental principles of oral diagnosis including patient health history and clinical examination methods. Intraoral radiography. General approach to treatment planning for comprehensive health care.

704. *Operative Dentistry*. II. 4 Hr. Preclinical course in principles of cavity preparation, manipulation of plastic restorative materials, and related instrumentation. Characteristics and treatment of caries emphasized.

710. *Dental Anatomy and Occlusion*. 5 Hr. Anatomy of individual teeth, both permanent and primary, in regard to form and function and their static and dynamic occlusal relationships.

711. *Periodontics*. S. 2 Hr. Introduction to periodontal diseases; their diagnosis and treatment. Laboratory instruction is included.

712. *Dental Materials*. 2 Hr. Composition, physical, chemical, mechanical, and manipulative properties, and technical uses of dental restorative materials as related to dentistry.

713. *Removable Prosthodontics*. I. 4 Hr. Lectures and laboratory practice in biomechanical requirements of the edentulous patient including maxillomandibular relationships and occlusion.

715. *Dental Practice and Rural Health*. 2 Hr. Study of professional communication including dental literature and means of access.

717. *Removable Prosthodontics*. II. 1 Hr. PR: Consent. A lecture course providing an introduction to removable partial denture prosthetics.

719. *Pedodontics*. 1 Hr. PR: Consent. Normal growth and development presented from physical, intellectual, psychological, and oral perspectives. Behavior of children in dental environment reviewed and strategies for management examined.

720. *Community Dentistry*. I. 1 Hr. Fundamentals of statistical analysis and the scientific method necessary to the understanding of dental research.

721. *Endodontics*. 2 Hr. Preclinical lectures and laboratory exercises on basic technical and biological requisites in the treatment of diseases of the dental pulp and the periapical tissues.

722. *Operative Dentistry*. 2 Hr. Preclinical course to include a variety of cavity forms and their restoration with compacted golds. Certain fundamentals of pedodontics introduced.

723. *Clinic Orientation*. 1 Hr. Series of specially arranged lectures, demonstrations, and clinical exercises to orient student to clinical procedures in the clinical disciplines.

725. *Practice Management*. II. 1 Hr. A lecture course designed to prepare dental students in the concepts of four-handed dentistry.

726. *Removable Prosthodontics*. 1 Hr. This is a seminar course which identifies the knowledge and develops the psychomotor skills necessary for the student to perform a prosthodontic review for the removable partial denture.

727. *Oral Radiology*. 1 Hr. The physical and biological phenomena associated with x-radiation. Intraoral and extraoral techniques presented and instruction in interpretation of roentgenograms, with special emphasis relative to oral diagnosis.

729. *Operative Dentistry*. 2 Hr. Lectures relate to standard clinical procedures and to laboratory instruction in direct and indirect cast gold restorations.

730. *Community Dentistry*. II. 1 Hr. Lectures provide the student with a basic knowledge of the principles of dental public health practice. Emphasis on dental epidemiology and preventive dentistry at the community level.

731. *Occlusion*. 2 Hr. PR: Consent. Didactic and clinic/laboratory instruction in the basic techniques and procedures associated with the treatment of conditions related to faulty occlusion.

732. *Periodontics*. II. 1 Hr. Lectures in the advanced theory and practice of preventive dentistry with emphasis on nutrition.

733. *Physical Diagnosis*. 1 Hr. Lectures, demonstrations, and procedures involved in performing a physical examination and in understanding the hospital medical chart from the standpoint of history, physical examination, laboratory, and x-ray examination data.

734. *Removable Prosthodontics 2*. 2 Hr. Didactic and laboratory course which identifies the knowledge and develops the psychomotoric skills for making a complete mandibular master cast and for the management of cusp form posterior complete denture occlusion.

735. *Pediatric Dentistry*. 2 Hr. PR: Consent. Didactic instruction foundational to the dental care to children presented in the following modules of instruction: oral diagnosis/treatment, planning/case presentation, prevention, restorative dentistry, pulpal therapy, management of the developing occlusion and trauma to the dentition and oral structures.

736. *Fixed Prosthodontics*. 7 Hr. Lecture and laboratory exercises on principles and techniques of crowns and bridge prosthodontics and the techniques of preparing and restoring teeth with crown restorations. (Course meets both fall and spring terms.)

737. *Oral Diagnosis*. 1 Hr. Didactic instruction with further application of diagnosis procedures presented in DENT 303, extended to include special examination procedures and techniques applicable to evaluating clinical problems.

739. *Oral Surgery*. 1 Hr. Didactic instruction in basic surgical principles as applied to the extraction of teeth dento-alveolar surgery.

740. *Periodontics*. 1 Hr. Intermediate didactic instruction in periodontal therapy including basic surgery and post-operative care.

741. *Removable Prosthodontics*. 2 Hr. Clinical demonstrations correlating the didactic and laboratory practices with the actual treatment of a removable prosthodontic patient.

742. *Periodontics*. 1 Hr. PR: Consent. Clinical introduction to the practice of preventive dentistry.

744. *Diagnosis and Treatment Planning*. 1 Hr. Analysis of orthodontic diagnostic records, diagnostic skills for various malocclusions, and formulation of a treatment plan to orthodontic cases.

745. *Principles of Orthodontics*. 1 Hr. Facial growth and development, the development of occlusion, and etiology and classification of malocclusions.

746. *Orthodontic Techniques*. 2 Hr. Technical instruction in taking diagnostic records and constructing basic orthodontic appliances.

747. *Management of Medical and Dental Emergencies*. 1 Hr. Assessment and treatment of the medical risk patient as related to the practice of dentistry. CPR instruction included.

748. *Operative Dentistry*. 1 Hr. Cavity medications, biological reactions to restorative materials and techniques, bur technology, and clinical variations of cavity form and treatment. Treatment planning procedure is reviewed and examined.

750. *Removable Prosthodontics*. 2 Hr. Lectures concerned with clinical practice of complete and partial removable prostheses.

751. *Occlusion*. 1 Hr. PR: Consent. Advanced study of the science of occlusion with particular attention to its impact on the clinical diagnosis and treatment of occlusal disorders.

752. *Community Dentistry*. 2 Hr. Seminars, proseminars, and field experience in selected topics of professional communication, health education, and the sociology and psychology of community health.

754. *Introduction to Dental Implantology*. 1 Hr. PR: Consent. Biological and scientific bases for implant dentistry; diagnosis, treatment planning, selection, placement, restoration, and maintenance of dental implants.

756. *Removable Prosthodontics*. 1 Hr. Lectures in the theory and practice of maxillofacial prosthodontics and implant dentistry.

757. *Fixed Prosthodontics*. 2 Hr. PR: Consent. Lectures concerned with clinical practice; diagnosis, treatment planning, treatment procedures, ceramics, esthetics, and occlusion.

758. *Operative Dentistry*. 2 Hr. More complex and advanced techniques for clinical practice with emphasis on new developments throughout the scope of operative dentistry.

759. *Oral Surgery*. 2 Hr. PR: Consent. Didactic instruction in patient evaluation, complicated exodontia, preprosthetic surgery, diagnosis, surgical and adjunctive treatment of disease, injuries, and defects of human jaws and associated structures.

761. *Pediatric Dentistry*. 1 Hr. PR: Consent. Continued didactic instruction in dentistry for the child patient with the following learning packages programmed: abnormal dental development, oral habits, and adolescent dentistry.

762. *Endodontics*. 1 Hr. Lectures on rationale, diagnosis, prevention, and nonsurgical and surgical treatment of diseases of the dental pulp and their sequelae.

763. *Periodontics*. 2 Hr. Advanced didactic instruction in periodontal therapy including special surgical procedures.

764. *Pain and Anxiety Control*. 1 Hr. PR: Consent. Instruction in the psychology, physiology, and clinical techniques of controlling pain and anxiety in the dental patient.

765. *Orthodontics*. 1 Hr. Introduction to clinical orthodontics; lectures on case analysis, treatment planning, and clinical procedures involved in interceptive, preventive, and adjunctive treatment of malocclusions.

766. *Developmentally and Medically Compromised Child*. 1 Hr. PR: Consent. Didactic instruction in dentistry for the developmentally disabled and/or medically compromised child.

767. *Community Dentistry*. 1-15 Hr. Field experience in various aspects of community health.

768. *Hospital Dentistry Practicum*. 1-15 Hr. Hospital experience (remote site) in the various aspects of care of the hospitalized dental patient. Provides continuation of experiences gained in DENT 349.

769. *Practice Management (Ethics and Law in Dentistry)*. 1 Hr. PR: Junior standing in dentistry. Core knowledge of the ethical and legal issues in dentistry; ethical and legal decision making process.

770. *Clinical Oral Radiology*. 0-6 Hr. Clinical application of principles presented in DENT 303 and DENT 327 with additional instruction in techniques and interpretation of radiographs with special emphasis to role played in oral diagnosis.

771. *Practice Management*. 2 Hr. PR: DENT 725. A lecture series on the fundamentals of practice management, including the organization and development of the practice, personnel and financial management, and the introduction to TEAM dentistry.

772. *Case Based Treatment Planning*. 1 Hr. This course will involve the comprehensive analysis of complex cases in order to formulate an appropriate ideal treatment plan with suitable alternatives. The student must assimilate patient information into the S.O.A.P format and present the case before faculty and peers.

773. *Provisional Restorations*. 1 Hr. This course will provide instruction and theory in the fabrication of optimal provisional restorations that satisfy biologic, mechanical, and esthetic requirements. Using a seminar format, the properties of materials used, protection of the dental pulp, maintaining periodontal health, and providing occlusal compatibility will be discussed.

774. *Principles of Medicine*. 2 Hr. General diseases about which the dental student should have intelligent working knowledge. Students are assigned to specific hospitalized patients to review their findings with the class.

775. *Practice Management*. 0-6 Hr. PR: Consent. Clinical practice using auxiliaries, including those trained in expanded functions.

776. *Removable Prosthodontics*. 0-6 Hr. Continued application of the theory and practice of removable prosthodontics.

777. *Periodontics*. 0-6 Hr. Clinical experience in the diagnosis and treatment of periodontal diseases.

778. *Practice Management—Law*. 1 Hr. Select legal concepts and their relation to the practice of dentistry.

779. *Practice Management—Ethics*. 1 Hr. Core knowledge of ethical issues in dentistry; the process of ethical decision making.

780. *Endodontics*. 0-6 Hr. Clinical endodontic instruction in order to develop the skills and judgement necessary to treat diseases of the dental pulp and their sequelae.

781. *Patient Management*. 1 Hr. (Repeated four times.) This course develops professional responsibility and time management through monitoring of patient care activity, which includes treatment, case presentations, diagnostic reviews, and clinic service assignments. (Grading will be S/U.)

783. *Operative Dentistry*. 0-6 Hr. Instruction in the clinic setting includes comprehensive diagnosis and treatment planning, computer assisted records, plaque control, caries control, and single tooth restorations. Sufficient variety and depth of experience occurs to obtain competence for independent practice of operative dentistry.

784. *Oral Surgery*. 0-6 Hr. Clinical instruction in outpatient and inpatient oral surgery necessary to provide comprehensive care for the dental patient.

785. *Orthodontics*. 0-6 Hr. Clinical management of selected malocclusion problems.

786. *Pediatric Dentistry*. 0-6 Hr. Instruction in the clinical setting with the goal of developing the psychomotor skills and judgment necessary to provide comprehensive care for the child patient.

787. *Clinical Oral Diagnosis*. 0-6 Hr. Clinical application of principles presented in DENT 303 and DENT 337, providing opportunities for observation and analysis of clinical problems.

788. *Clinic Completion Practicum*. 1-15 Hr. Supervised patient care in selected clinical areas specified for each individual student according to their clinical competency requirements. (Grading will be S/U.)

789. *Fixed Prosthodontics*. 0-6 Hr. PR: Consent. Clinical application of the theory and practice of crown and bridge dentistry.

791 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. 1-6 Hr. Directed study, reading, and/or research.

793. *Special Topics*. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *Special Seminars*. 1-6 Hr. Seminars arranged for advanced graduate students.

Endodontics (ENDO)

688. *Clinical Endodontics*. I, II, S. 1-5 Hr. (May be repeated for credit.) PR: 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.

689. *Endodontic Theory*. I, II, S. 2 Hr. (May be repeated for credit.) PR: Consent. Provides seminar discussions in the topics of: basic endodontic techniques, advanced endodontic techniques, endodontic literature review, case presentation, and advanced endodontic theory.

690. *Teaching Practicum*. I, II. 1-3 Hr. PR: Consent. Supervised practice in college teaching of dentistry.

691. *Advanced Topics*. I, II, 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

697. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis (697), problem report (697), research paper or equivalent scholarly project (697), or a dissertation (797). (Grading may be S/U.)

Orthodontics (ORTH)

616. *Biomechanics*. I, II, S. 2 Hr. PR: Consent. Design and function of the teeth and their surrounding structures, and response of these tissues to orthodontic procedures.

617. *Orthodontic Technique*. I, II, S. 2 Hr. PR: Consent. Laboratory course in techniques related to fabrication and manipulation of orthodontic appliances.

618. *Orthodontic Materials*. I, II, S. 1 Hr. PR: Consent. Physical properties of materials used in orthodontic appliances.

619. *Orthodontic Diagnosis*. I, II, S. 1-3 Hr. PR: Consent. Seminar-type class on technique of patient examination, acquiring diagnostic records, and analyzing and correlating this information to the treatment of clinical problems.

620. *Cephalometrics*. S. 1-3 Hr. PR: Consent. Use of radiographic cephalometry in studying growth of the human face, analysis of dentofacial malformations, and evaluation of orthodontic treatment.

621. *Orthodontic Mechanics*. I, II, S. 1-4 Hr. PR: DENT 416, 417. Seminar and laboratory course on basic orthodontic mechanical properties.

622. *Advanced Orthodontic Mechanics*. I, II, S. 1 Hr. PR: ORTH 421. Continuation of DENT 421 involving more difficult type cases and introducing more sophisticated appliance therapy.

623. *Growth and Development*. I, II, S. 1-5 Hr. PR: Consent. Seminar-type course on normal and abnormal growth of the human head and its application to orthodontics.

625 A-Z. *Orthodontic Seminar*. I, II, S. 1-8 Hr. PR: Consent. Discussions including all branches of dental science, with special emphasis on the orthodontic interest. Assigned topics and articles in the literature discussed.

626. *Orthodontic Clinic*. I, II, S. 1-12 Hr. PR: ORTH 616 and ORTH 617. Clinical treatment of selected patients.

690. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Supervised practice in college teaching of dentistry.

691. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

692. *Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and/or research.

693. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

694. *Seminar*. I, II, S. 1-6 Hr. Seminars arranged for advanced graduate students.

695. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

696. *Graduate Seminar*. I, II, S. 1 Hr. PR: Consent. It is anticipated that each graduate will present at least one seminar to the assembled faculty and graduate student body of his/her program.

697. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis (697), problem report (697), research paper or equivalent scholarly project (697), or a dissertation (797). (Grading may be S/U.)

School of Medicine

Professional, Graduate, and Undergraduate courses

Anatomy (ANAT)

301. *Principles of Human Anatomy*. 3 Hr. PR: Admission to WVU's Dental Hygiene, Nursing, or Pharmacy program or consent. Lectures and demonstrations on the gross and microscopic anatomy of the human body including development.

302. *Gross Anatomy*. 3 Hr. PR: ANAT 301 and Consent. Functional gross anatomy of the back, extremities, head, and neck. (For physical therapy students.)

309. *Oral Histology*. 2 Hr. PR: ANAT 301. Histological structure and embryological development of the teeth, tissues, and organs of the oral cavity. (Electronic delivery)

Anesthesiology (ANES)

701. *Basic Sciences Applied to Anesthesiology*. I, II. 1-6 Hr. PR: Consent. (Not offered during summer.) Examination and evaluation of date, decision-making, discussion of special procedures. (Maximum enrollment: 10.)

731. *Clinical Clerkship in Anesthesiology and Acute Medicine*. 0 Hr. (Third year.) Cr. Preanesthetic evaluation, local and systemic anesthesia, airway management, cardiopulmonary resuscitation, respiratory care, clinical pharmacology, toxicology, fluid and blood therapy, and pain management. Seminars and practical exercises in emergency cardiac life support clinical experience in ICU or OR. (Duration: 2 weeks.)

780. *Surgical Critical Care Medicine*. 0 Hr. Clinical rotation course. (See conjoined courses.)

790. *Teaching Practicum*. 1-3 Hr. PR: Consent. Supervised practice in the college teaching Anesthesiology. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be S/U.)

791. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. 1-6 Hr. Directed study, reading, and/or research.

793. *Special Topics*. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *Seminar*. 1-6 Hr. Seminars arranged for advanced graduate students.

795. *Independent Study*. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

797. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

798. *Thesis*. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through his/her department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. Grading is S/U.; colloquium credit may not be counted against credit requirements for master's programs.

Behavioral Medicine and Psychiatry (BMP)

691. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

697. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

741. *Clinical Clerkship in Psychiatry*. 3 Hr. This is a clinical rotation course required for all third-year medical students. Students will be assigned to work with both in and out-patient psychiatric care. Focus will be on making psychiatric diagnoses and implementing appropriate treatments. Students will become familiar with various types of psychiatric disorders as well as their treatment. Students will learn about psychopharmacology, psychotherapy, and other biological treatments. Students will also be on call for and involved in the treatment of emergency department psychiatric patients.

790. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Supervised practice in college teaching of behavior medicine and psychiatry. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading may be S/U.)

791. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and/or research.

793. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *Seminar*. I, II, S. 1-6 Hr. Seminars arranged for advanced graduate students.

795. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. I, II, S. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

798. *Thesis or Dissertation*. I, II, S. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their students reports, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. I, II, S. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through enrollment in his/her department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of fully enrolled students. Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.

930. *Professional Development*. 1-6 Hr. Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology). These tuition waived continuing education courses are graded on a Satisfactory or Unsatisfactory grading scale and do not apply as graduate credit toward a degree program.

Biochemistry (BIOC)

339. *Introduction to Biochemistry*. I. 3-5 Hr. PR: General chemistry, organic chemistry. (For medical technology, undergraduate biochemistry majors, and other students.) A general introduction to biochemistry with emphasis on human biochemistry. (Lecture, 4 hr.; Laboratory, 1 hr.)

492. *Directed Study*. I, II, S. 1-6 Hr. (May be repeated for a maximum of 12 Hr.) PR: Consent.
493. *Special Topics*. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.
494. *Seminar*. 1-3 Hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.
496. *Senior Thesis*. 1-3 Hr. PR: Consent.
497. *Research*. 1-6 Hr. Independent research projects.
498. *Honors*. 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.

Community Health Promotion (CHPR)

170. *Health of the Individual*. 3 Hr. Examines personal health-related problems in terms of information, services, and actions, as they relate to attainment and maintenance of individual health.

172. *First Aid and Emergency Care*. 3 Hr. Emergency aid for the sick and injured. Emergency services aimed at reducing the potential of permanent disability or threats to life, as well as pain, damage, or suffering of a less serious nature.

210. *First-Aid Teaching Practicum*. 3 Hr. This class prepares students to conduct a first-aid course. Students work with the instructor in all aspects of course management. Students who complete this course are eligible to apply for instructor candidate training with the American Red Cross.

250. *History and Philosophy of Health Education*. 3 Hr. Provides the student with a historical perspective of health education's development, its present status, and its current philosophical foundations.

260. *Introduction to Peer Health Education*. 3 Hr. Prepares students to become peer health educators through the study of health concerns of students in higher education and examination of effective teaching strategies that result in positive health outcomes.

261. *Advanced Peer Health Education*. 3 Hr. Students apply a variety to teaching strategies based on the peer concept to health concerns of college students and other young adults.

265. *HIV/STD Prevention: Global Challenge*. 3 Hr. Addresses personal, social, legal, medical, and cultural aspects of HIV and sexually transmitted diseases and the health education efforts to stem the pandemic.

270. *Alcohol/Drug Education for Athletes*. 3 Hr. Chemical use and dependency has a significant impact on people in all walks of life. An overview of chemical dependency and current prevention and intervention is presented.

271. *Health in the Community*. 3 Hr. Develops an understanding of the organization, structure, and function of official, voluntary, and professional community health components in terms of their protecting and maintaining the health of the community.

275. *Substance Abuse: Student Leaders*. 3 Hr. Provides individuals, particularly those in organizational leadership roles, with an understanding of substance abuse, leadership roles, and decision-making skills for organizations.

293 A-Z. *Special Topics*. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

301. *Elementary School Health Program*. 2 Hr. PR: Junior standing. The organization, educational aspects, and personnel relationships involved in elementary school health services, healthful school living, and health education.

302. *Secondary School Health Program*. 2 Hr. PR: Junior standing. The organization, educational aspects, and personnel relationships involved in secondary school health services, healthful school living, and health education.

304. *Organization and Administration of the School Health Program*. 3 Hr. PR: CHPR 271. The underlying philosophy for the organization, structure, administrative policies and procedures, and legal aspects of the school health program.
320. *Drug and Alcohol Abuse Prevention*. 3 Hr. Experiences designed to prevent the development of abusive drug-taking relationships by focusing on psychological variables such as self-esteem, coping skills, and development of support networks.
331. *Accident Prevention and Control Principles*. 3 Hr. Basic course which structures principles, concepts, and methodology of the safety movement into introductory experiences dealing with accident prevention and control efforts recommended for various social institutions and agencies.
332. *Safety Education Principles and Content*. 3 Hr. PR: CHPR 331 or consent. Study and analysis of content areas usually recommended for instructional programs within the field of safety, with emphasis on structured learning experiences.
375. *Physical Lifestyle Management*. 3 Hr. This course will provide an experience conducive to the understanding, exploration, experience, and development of scientifically sound physical health behaviors within the framework of the transtheoretical model of health behavior.
376. *Mental Lifestyle Management*. 3 Hr. This course will provide experience conducive to the understanding, exploration, and development of mental, emotional, and spiritual health processes that comprise and support personal holistic health.
390. *Women and Health*. 3 Hr. Examination of theories, myths, and practices surrounding women's physical and mental health from both historical and present-day perspectives. Exploration of specific health issues and controversies and the rise of the women's health movement.
490. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Teaching practice as a tutor or assistant.
491. *Professional Field Experience*. I, II, S. 1-18 Hr. PR: Consent (May be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.
- 493 A-Z. *Special Topics*. 1-6 Hr. PR: Consent. Consideration of persistent issues and changing problems in the health promotion field. Emphasis will be placed upon health promotion interests of participating class members.
494. *Seminar*. 1-3 Hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.
496. *Senior Thesis*. 1-3 Hr. PR: Consent.
498. *Honors*. 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.
507. *Community Health: Human Sexuality*. 3 Hr. PR: Consent. Analysis of sex-related issues including parenting, sex education, sexual sanctions, pornography, sexual dysfunction, and sexual variance. Designed for teachers, health professionals, and interested lay people.
509. *Community Health: Drug Education*. 3 Hr. PR: Consent. Designed to help students learn appropriate components of a drug education program, gain an understanding of drug taking in this society, and acquire insights into dependent behaviors.
612. *Social and Behavioral Theory*. 3 Hr. The focus of this course is on the role of individual behavior in attaining health. Integration of the concepts of health education and behavioral science to facilitate changes in health behavior is addressed.
614. *Injury Prevention and Control*. 3 Hr. The injury control problem is examined as a public health concern. Strategies and programs for injury prevention are studied for implementation with target groups who are overrepresented within the injury problem.

633. *Foundations of Wellness*. 3 Hr. Wellness is examined as a component of health promotion. A wellness lifestyle is fundamental to promoting a holistic wellness concept. Quality-of-life issues and programs are explored for a variety of audiences.

634. *Health Promotion Research Methods*. 3 Hr. PR: CHPR 612. This course is designed to introduce students to the basic elements of conducting effective evaluation of health promotion programs.

635. *Management for Community/Public Health*. 3 Hr. PR: CHPR 612. The course provides students with the essential skills to be effective managers in the community and public health environment.

638. *Community Health Assessment/Evaluation*. 3 Hr. PR: CHPR 612. This course is designed to convey theory and practice for developing health promotion programs. The course addresses assessment and evaluation principles appropriate to a wide range of health promotion programs.

642. *Grant Writing for Health Educators*. 3 Hr. PR: CHPR 612. This course addresses various components of the grant writing process, including collaboration, funding sources, proposal preparation, and grants management for the health professional.

648. *Intervention Design*. 3 Hr. PR: CHPR 638. Students will apply information from CHPR 638 and other foundation courses in designing a health promotion intervention for a health agency or enterprise. Students will defend their intervention before their faculty committee.

650. *Practicum*. 1-12 Hr. PR: Consent. Students are assigned to a field placement based on prior health promotion work experience. Under the supervision of faculty, students assume major responsibility for a program with a community health promotion organization. (Grading may be S/U.)

691 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

697. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or dissertation. (Grading may be S/U.)

782. *Supervised Applied Health Education Project*. 1 Hr. PR: Advanced graduate standing or consent. Doctoral students only. Plan and conduct a health education intervention in other than a classroom setting, i.e., a defined community.

783. *Supervised Health Education Research Report*. 1 Hr. PR: Advanced graduate standing and consent. Doctoral students only. A written report of empirical research of either a survey or an experiment.

790. *Teaching Practicum*. 1-3 Hr. PR: Consent. Supervised practice in college teaching of health-related learning experiences. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be S/U.)

791 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

792. *Directed Study*. 1-6 Hr. Directed study, reading, and/or research.

793. *Special Topics*. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *Seminars*. 1-6 Hr. Seminars arranged for advanced graduate students.

795. *Independent Study*. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis (697), problem report (697), research paper or equivalent scholarly project (697), or a dissertation (797). (Grading may be S/U.)

798. *Thesis or Dissertation*. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University facilities, and participate in its academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through enrollment in the department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. (Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.)

900. *Professional Development*. 1-6 Hr. Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology.) These continuing education courses are graded on a satisfactory or unsatisfactory grading scale and do not apply as graduate credit toward a degree program.

930. *Professional Development*. 1-6 Hr. Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology.) These tuition-waived continuing education courses are graded on a satisfactory or unsatisfactory grading scale and do not apply as graduate credit toward a degree program.

Community Medicine (CMED)

612. *Community Medicine*. 3 Hr. PR: Consent. Medical students only. The role of the physician in the prevention of disease and in the examination of health status in a community, with reference to demographic, economic, sociologic, environmental, and occupational factors. The organization of public health and medical care.

691 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

695. *Independent Study*. 1-6 Hr. PR: Consent. Faculty supervised study of topics not available through regular course offerings.

697. *Research*. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

698. *Thesis*. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. (Grading may be S/U.)

701. *Law and the Workplace*. 1 Hr. PR: MD degree, graduate standing, or consent. Philosophy, content, and procedures of current judicial bodies relevant to the practice of medicine in the industrial society, developed through a series of lectures followed by extensive discussion involving students from different curricular backgrounds. (1 hr. sem.)

712. *Medical Aspects of Environmental Health*. 1 Hr. PR: MD degree or consent. A review of issues illustrating the responsibilities and professional interaction of physicians in identifying, managing, and preventing casualties from environmental causes in air, water, soil, food, pesticides, and related subjects. (1 hr. lec.)

722. *Epidemiology and Biostatistics*. 2 Hr. PR: Consent; medical students only. Epidemiological and statistical analysis of biologic phenomena as related to medicine. Emphasis on descriptive statistics, analytical epidemiology, statistical inference, measures of association, and evaluation of medical literature.

788. *Critical Review of Literature*. 1 Hr. PR: MD or consent. A review of current literature in occupational and environmental medicine, focused on analysis of validity and procedures followed; scrutiny of research reports, their design, methodology, data handling, documentation, and discussion of the data base.

790. *Teaching Practicum*. 1-3 Hr. PR: Consent. Supervised practice in college teaching of anatomy. (Grading may be S/U.)

791 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. 1-6 Hr. PR: Consent. Directed study, reading, and/or research.

793. *Special Topics*. 1-6 Hr. PR: Consent. A study of contemporary topics selected from recent developments in the field.

794. *Seminar*. 1-6 Hr. PR: Consent. Seminars arranged for advanced graduate students.

795. *Independent Study*. 1-6 Hr. PR: Consent. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. 1 Hr. PR: Consent. A one-credit hour seminar is designed to assist students in identifying their career objectives and exploring opportunities to achieve their career objectives.

797. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper, or equivalent scholarly project or a dissertation. (Grading may be S/U.)

798. *Thesis or Dissertation*. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking coursework but who wish to meet residence requirements, use University facilities, and participate in academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through enrollment in his/her department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. (Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.)

Conjoined Basic Sciences (CCMD)

712. *Evidence Based Medicine*. 4 Hr. PR: Medical students only. The first semester will introduce students to biostatistics, clinical epidemiology, and their application to the evidence-based practice of medicine. The second semester will apply these principles to health maintenance and public health.

721. *Physical Diagnosis and Clinical Integration*. 6 Hr. PR: Medical students only. This course will introduce clinical medicine topics, organized by organ system, as well as emphasize history and physical exam skills. Students will begin to use clinical reasoning techniques, integrating basic science and clinical knowledge. (Grading will be S/U.)

730. *Human Function*. 16 Hr. PR: For medical students and selected graduate students with instructor consent. Integrated approach combining biochemistry, genetics, and physiology of the human body. Includes molecular, subcellular, and cellular components of the body, organ systems and whole body functions. Application of basic sciences to human health and disease. (Lec. 14 hr., other 2 hr., contact 16 hr.)

740. *Patient-Centered Health Care*. 5 Hr. This course will introduce students to the biological, psychological, social, and spiritual dimensions of health care. Normal and abnormal human development, psychopathology, ethical, legal, and spiritual aspects of health care will be explored in the context of health care decision making.

745. *Introduction to the Patient*. 7 Hr. This course will introduce the student to persons with health concerns. Students will begin development of skills of medical communication, data gathering, and physical examination techniques. (Lec. 5 hr., other 2 hr., contact 7 hr.)

750. *Radiation Safety and Radionuclide Usage*. 1-2 Hr. PR: PHYS 101 and PHYS 102, CHEM 115 and CHEM 116, or consent. Chemical, physical, and biological aspects of radiation; safety; handling and storage of radioactive materials; NRC and WVU regulations and licensing; detection and instrumentation, research, and clinical use of radioisotopes.

770. *Medical Genetics*. 2-4 Hr. PR: Second-year medical student standing; graduate student in genetics and developmental biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as GEN 570.)

775. *Neurobiology*. 6 Hr. PR: CCMD 730 and ANAT 703 or consent. Introduction to structure and function of the human nervous system with a focus on clinical application of basic science. Emphasis is on normal neurobiology (at cells/systems levels) essential to understanding human manifestations of neural pathology.

789. *Introduction to Biomedical Research*. 1 Hr. PR: Consent. This course covers topics (such as ethics, social justice, information retrieval, and laboratory safety procedures and regulations) that are essential for all graduate students in the biomedical sciences.

790. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Supervised practice in college teaching of conjoined courses. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading may be S/U.)

791 A-Z. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and/or research.

793. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *Seminar*. I, II, S. 1-6 Hr. Seminars arranged for advanced graduate students.

795. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. I, II, S. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

798. *Thesis or Dissertation*. I, II, S. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. I, II, S. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities and participate in its academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through enrollment in his/her department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. (Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.)

Exercise Physiology (EXPH)

293. A-Z. *Special Topics*. I, II, S. 1-6 Hr. Investigation of topics not covered in regularly scheduled courses.

364. *Kinesiology*. I, II, S. 3 Hr. PR: Junior standing; consent. Anatomical, mechanical, and musculoskeletal study of the human body as the instrument for efficient performance of motor activities. (Laboratory work included.)

365. *Exercise Physiology 1*. I, II, S. 3 Hr. PR: Junior standing; consent. The study of the functioning of body systems during exercise and the acute and chronic adaptations that occur from exercise stress.

368. *Lab Techniques and Methods*. I, II. 3 Hr. PR: Junior standing; EXPH 364 and EXPH 365; consent. Techniques and methods for designing and conducting exercise programs for asymptomatic, healthy individuals.

450. *Theory of Aquatic Therapy*. 3 Hr. PR: Junior standing or consent. An introduction to aquatic therapy. It covers the historical perspective, biophysiological response to water immersion and application of aquatic therapy to specific physical diagnoses.

451. *Application of Aquatic Therapy*. 3 Hr. PR: Junior standing and consent. Design and implementation of aquatic exercise prescriptions to meet rehabilitation goals. Aquatic therapy techniques will be demonstrated and practiced.

452. *Aquatic Therapy Facility Management*. 3 Hr. PR: Junior standing and EXPH 451 and consent. Facility design, water chemistry, water safety, and aquatic programming for special populations including rehabilitation, community re-entry, and wellness programs in a comprehensive continuum of care.

490. *Teaching Practicum*. 1-3 Hr. PR: Consent. Teaching practice as a tutor or assistant.

491. *Professional Field Experience*. I, II, S. Variable credit 1-18 Hr. PR: Consent (May be repeated up to a maximum of 18 hours.) Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development. (Internship.)

493. A-Z. *Special Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

494. *Seminar*. I, II, S. 1-3 Hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

496. *Senior Thesis*. I, II, S. 1-3 Hr. PR: Consent.

497. *Research*. I, II, S. 1-6 Hr. Independent research projects.

498. *Honors*. I, II, S. 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.

567. *Exercise Physiology 2*. I. 3 Hr. PR: Consent. Thorough and workable knowledge of the functioning of body systems during exercise, the acute and chronic adaptations that occur, and the practical application of work physiology.

660. *Biomechanical Analysis of Sport and Physical Activity*. 3 Hr. PR: EXPH 364 and EXPH 365 or equivalent; and SS 615. Advanced principles of body mechanics and analysis of muscle and joint actions in coordinated movement and neuromuscular physiology.

668. *Diabetes and Exercise*. II. 3 Hr. PR: Graduate standing, consent. In-depth study of topics related to the comprehensive management of patients with diabetes mellitus, with special emphasis on the use of exercise in diabetes care.

670. *Lab Techniques and Methods 2*. I, S. 3 Hr. PR: Graduate standing, consent. This course teaches the techniques and methods used to monitor physiologic systems in humans during rest and exercise. It includes methods used to assess the health status of individuals desirous of exercise testing or prescription.

671. *Stress Testing*. II. 3 Hr. PR: EXPH 670, consent. In-depth study of graded exercise testing in laboratory or field situations. The course includes protocols for athletes, asymptomatic individuals, and special populations.

672. *Professional Field Placement*. I, II, S. 1-18 Hr. PR: EXPH 370, and EXPH 371, Consent. Prearranged program to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development. (Internship.)

691. A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

693. *Special Topics*. I, II, S. 1-6 Hr. PR: Consent. A study of contemporary topics selected from recent developments in the field.

697. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or dissertation. (Grading may be S/U.)

790. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Supervised practice in teaching exercise physiology.

791. A-Z. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

792. A-Z. *Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and/or research.

794. *Seminar*. I, II, S. 1-6 Hr. Special seminars arranged for advanced graduate students.

795. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program. (Graded S/U.)

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

798. *Thesis or Dissertation*. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's report, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking coursework but who wish to meet residence requirements, use University facilities, and participate in academic and cultural programs.

Family Medicine (FMED)

731. *Clerkship*. 8 Hr. PR: Successful completion of first two years of medical school. An eight-week rotation in the office setting; rotations of four weeks to clinics within the University system and four weeks to private practitioner offices throughout the state. Lecture, laboratory, conference, and patient care.

Gerontology (GERO)

293 A-Z. *Special Topics*. I, II. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

310. *The Aging Women*. 3 Hr. Does gender make a difference in the aging process? This course examines the female experience of growing older. Lecture, discussion, review of literature, with focus on selected works of literature and the creative arts.

410. *The Rural Elderly*. 3 Hr. Overview of health, social, and policy issues that impact the quality of life of older adults living in rural environments, contrasted with those in urban areas. (Equivalent to GERO 681)

412. *Public Policy of Aging*. 3 Hr. Policy analysis of major public programs for senior citizens—Older American Act, Medicare-Medicaid and Social Security. Discussion of future of these programs and societal response. Emphasis on senior programs in West Virginia. (Equivalent to GERO 512)

491. *Professional Field Experience*. 1-18 Hr. PR: Consent (may be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

491. A-Z *Advanced Study*. I, II, S. 1-6 Hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

493 A-Z. Special Topics. I, II. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

495. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

Medical Technology (METC)

100. *Orientation to Medical Technology*. 2 Hr. Introduction to the profession of medical technology and the clinical laboratory specialties. (Pass/fail grading only.)

300. *Medical Techniques 1*. 4 Hr. PR: Acceptance into the Medical Technology Program as a first-year student or consent by director. Clinical laboratory procedures employed in patient diagnosis in the areas of blood coagulation, blood banking, hematology, and clinical microscopy.

301. *Medical Technology 2*. 4 Hr. Continuation of MTEC 100.

302. *Laboratory Math, Quality Control, Computers*. 2 Hr. Lectures and practice sessions in laboratory mathematics, techniques, and calculations in quality control, quality assurance. Computer acquisition and evaluation.

310. *Clinical Laboratory Mycology*. 1 Hr. How to isolate and identify the more commonly encountered pathogenic fungi as well as those fungi frequently seen as laboratory contaminants. The course will include basic taxonomy, isolation procedures, and identifying characteristics.

329. *Basic Clinical Chemistry*. 1 Hr. PR: Students in Medical Technology Program. Basic clinical chemistry procedures and theory. (1 hr. lec.)

391. *Research, Educational Methodology*. 2 Hr. Lectures in ethics, techniques of research, and techniques of educational methodology for medical technology students.

400. *Orientation*. No credit. (For senior students). Principles and practices of medical technology in relation to the hospital and clinics. (Pass/fail grading only.)

401. *Phlebotomy*. 1 Hr. PR: Enrollment in Medical Technology Program, MTEC 300 and MTEC 301. Clinical laboratory practice, including venipuncture, finger sticks, and heel sticks; isolation, universal precaution, and other safety techniques are included.

420. *Immunohematology and Blood Banking*. 2 Hr. Lectures on immunohematology and blood banking theory and practice.

421. *Immunohematology and Blood Banking Laboratory*. Arranged. 5 Hr. Clinical laboratory practice in blood banking procedures. Emphasis on procedures required for collection and preparation of blood and blood components for transfusion, special techniques, antibody studies, and problem solving.

430. *Clinical Chemistry*. 2 Hr. Lectures on principles of clinical chemistry procedures, clinical significance, and implication in diagnosis.

431. *Clinical Chemistry Laboratory*. Arranged. 5 Hr. Practice in the clinical chemistry laboratory.

440. *Clinical Hematology and Coagulation*. 2 Hr. Lectures in hematologic theory, coagulation, and practice.

441. *Clinical Hematology and Coagulation Laboratory*. 5 Hr. Application of hematological principles and coagulation to laboratory medicine. Emphasis on routine and specialized procedures, evaluation, and problem solving.

450. *Clinical Microbiology*. 2 Hr. Presentation and discussion of current methodology employed in the processing of clinical microbiology specimens, isolation, and identification of pathogenic microorganisms, and determination of antimicrobial sensitivities.

451. *Clinical Microbiology Laboratory*. Arranged. 5 Hr. Practice in the clinical microbiology laboratory to include isolation and identification of microorganisms; processing of specimens and antibiograms. Includes experiences in pathogenic mycology, virology, and parasitology.

460. *Clinical Laboratory Instrumentation*. 2 Hr. Principles of clinical laboratory instrumentation for medical technologists including principles of operation, maintenance, and troubleshooting.

465. *Clinical Laboratory Management*. 2 Hr. Laboratory organization and principles of laboratory management.

466. *Lab Management Practicum*. 1 Hr. PR 265/465. Problem-based learning and clinical laboratory management rotation. Application of management techniques learned in MTEC 465.

470. *Clinical Microscopy*. 1 Hr. PR: Senior standing in Medical Technology or consent. The analysis of body fluids (urine, fluids, etc.) for abnormalities.

471. *Clinical Microscopy Laboratory*. 1 Hr. PR: Senior standing in Medical Technology, or consent. Laboratory practicum in urinalysis and other procedures.

475. *Medical Relevance of Laboratory Analysis*. 1 Hr. PR: Senior status in Medical Technology. Case presentations of pathologic entities encountered in the clinical laboratory. (Pass/fail grading.)

480. *Clinical Immunology*. 2 Hr. Lectures in the principles of immunological and serological procedures, immunological diseases, and significance of laboratory methods for diagnosis.

490. *Teaching Practicum*. 1-3 Hr. PR: Consent. Teaching practice as a tutor or assistant.

491. *Professional Field Experience*. 1-18 Hr. PR: Consent (may be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

493 A-Z. *Special Topics*. 1-6 Hr.

494. *Seminar*. 1-3 Hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

496. *Senior Thesis*. 1-3 Hr. PR: Consent.

498. *Honors*. 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.

Medicine (MED)

731. *Clinical Clerkship in Medicine*. 8 Hr. (Third year.) Cr. Required of third-year medical students. The individual student is assigned responsibility for specific patients from the inpatient and outpatient services at West Virginia University Health Sciences Center or Charleston Area Medical Center service. The student is an integral part of the team providing diagnostic and treatment services needed by the patient, under direct supervision of members of the faculty of the department. The student elicits the patient's history, performs physical examinations, and performs or secures indicated laboratory and clinical studies. The student records findings and presents case reports for discussion by members of the faculty during hospital rounds or outpatient clinics. The student attends such conferences as directed. Clerkship in medicine occupies eight weeks. (Grading will be S/U)

791. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

Microbiology and Immunology (MBIM)

200. *Medical Microbiology*. 3 Hr. PR: CHEM 111 and CHEM 112.

323. *Medical Parasitology*. 5 Hr. (For medical technology students; other students with consent.) Biochemistry. Basic microbiology. Emphasis on immunology, pathogenic microorganisms, and clinical laboratory techniques.

327. *Parasitology*. 4 Hr. (For medical technology students; other students with consent.) Study of animal parasites and disease vectors with emphasis on disease manifestations, parasite biology, and laboratory diagnosis.

Neurology (NEUR)

741. *Clinical Clerkship in Neurology*. (Third year.) 2 Hr. Required of third-year students. Basic fundamentals of the neurological evaluation and neurological diseases. Evaluation and treatment of hospitalized patients and patients seen at the physician office center. All evaluations are performed under supervision of attending and resident physicians. Conferences and correlative instruction in neuropathology and neuroradiology.

791. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

797. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

Obstetrics and Gynecology (OBST)

741. *Clinical Clerkship in Obstetrics and Gynecology*. 8 Hr. (Required of third-year medical students.) Presents core knowledge of obstetrics and gynecology with small group instructional seminars, ward rounds, didactic teaching sessions, and grand rounds conducted by faculty, house officers, visiting faculty, and students. Students participate in the care of all inpatients and attend all departmental clinics.

791. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

797. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

Occupational Therapy (OTHC)

300. *Essentials of Clinical Anatomy*. 4 Hr. PR: OTH student status. A study of human gross anatomy, micro anatomy, and embryology with major emphasis on the musculoskeletal system.

301. *Professional Foundations*. 3 Hr. PR: OTH student status. Introduction to fundamentals of professional behavior for the occupational therapist. Includes units on history, paradigms, communication, documentation, ethics, interdisciplinary teamwork, licensure requirements, and medical terminology.

302. *Survey of Clinical Problem-Solving and Scientific Inquiry*. 2 Hr. PR: OTH student status. An introduction to analysis of clinical and research problems, including strategies for problem analysis and outcome.

303. *Functional Movement Across the Lifespan*. 2 Hr. PR: OTH student status. Including acquisition of developmental patterns, motor control, motor skill acquisition. This course also provides an overview of the effects of normative processes of aging on neuromotor patterns in occupational performance.

304. *Occupational Science*. 4 Hr. PR: OTH student status. An introduction to signs and symptoms and medical management of orthopedic and physical dysfunction/disabilities encountered by the occupational therapist. Emphasis is upon the effects of physical dysfunction/disabilities on human occupation.

306. *Kinesiologic Foundations*. 4 Hr. PR: OTH student status. Functional anatomical correlations and human movement. Statics, biomechanics, dynamics, and functional movement analysis.

307. *Neurobiologic Foundations*. 4 Hr. PR: OTH student status. Basic and clinical applications of neuroanatomy and neurology. Includes lectures on neurophysiological basis of physical and occupational therapy practice.

308. *Evaluation Procedures*. 3 Hr. PR: OTH student status. Theory and practice in evaluation procedures used by therapists. Includes Manual Muscle Test, isokinetic muscle testing, and assessment of components of movement, posture, balance, and hand function.

321. *Development Life Tasks*. 3 Hr. PR: OTH student status. Life-span human development across cognitive, psychosocial, and neuromotor domains with particular emphasis on applications to physical or occupational therapy interventions. Includes focus on cultural influences in health and illness.

360. *Research Methods in Occupational Therapy*. 3 Hr. PR: OTH student status. An introduction to principles of research methodology and data analysis in the realm of occupational science/occupational therapy. Includes a focus on scientific methodology, research design, data collection, data analysis, and ethical considerations.

384. *Level I Fieldwork 1*. 2 Hr. CPR training and clinical instruction in the occupational therapy process, OT documentation, basic measurement skills, experiences with people with disabilities, and participation in professional activities. (Grading will be pass/fail.)

385. *Level I Fieldwork 2*. 2 Hr. PR: OTH student status. Students will be provided with fieldwork experience in the occupational therapy process, and ADL perceptual and mental health assessments. Students will be placed in a variety of settings where mental health issues may be observed. (Grading will be pass/fail.)

386. *Level I Fieldwork 3*. 2 Hr. PR: OTH student status. Students will be provided with fieldwork experiences in occupational therapy processes. (Grading will be pass/fail.)

401. *Occupational Science 2*. 4 Hr. PR: OTH student status. An introduction to signs and symptoms and management and effect of neurological dysfunction and disabilities on human occupation encountered by the occupational therapist. Includes theories of treatment and basic treatment technologies.

402. *Clinical Decision Making 1*. 2 Hr. PR: OTH student status. Continuation of preparation for critical thinking and decision making in the field using appropriate information and technology in a case study format. An emphasis on autonomous practice and referral decisions.

406. *Cardio-Pulmonary Rehabilitation*. 3 Hr. PR: OTH student status. Lectures on cardiovascular and pulmonary conditions including medical interventions. Discipline-specific laboratory sessions include stress testing, physical capacity assessment, ecological analysis, use of monitoring equipment, and evaluation and planning rehabilitation protocols.

408. *Tests and Measures in Occupational Therapy*. I. 3 Hr. PR: OTH student status. Presentation of tests and measures used by occupational therapists in the assessment of various conditions. Emphasis will be placed on the clinical and functional evaluation of clients within the domain of occupational therapy practice.

416. *Professional Decision-Making*. 2 Hr. PR: OTH student status. Students are provided with opportunities to develop critical thinking, clinical reasoning, and decision-making skills in occupational therapy. Emphasis is on autonomous practice and referral decisions.

417. *Occupational Therapy in Geriatrics*. 3 Hr. PR: OTH student status. Overview of normative aging using an occupational therapy frame of reference. Common problems of seniors are discussed.

419. *Professional Values*. 3 Hr. PR: OTH student status. An introduction to ethics and how it specifically applies to rural health and life in West Virginia. Students will be given an opportunity to explore their own conceptions of ethics in health care.

430. *Occupational Therapy in Mental Health*. 3 Hr. PR: OTH student status. Clinical and functional science lectures pertaining to OT practice in mental health environments. Course includes introduction to occupational therapy clinical and functional assessment, and management protocols.

432. *Occupational Therapy Interventions in Mental Health*. II. 4 Hr. PR: OTH student status. Interventions commonly used by occupational therapists in the field of mental health. Emphasis on group processes, life skills, reintegration strategies.

435. *Therapeutic Activity*. 3 Hr. PR: OTH student status. Students will develop skills in performance component analysis, performance context analysis, and occupational performance analysis.

480. *Current Topics in Occupational Therapy*. 1-3 Hr. PR: OTH student status. (Not to exceed 18 hr.) A seminar course designed to provide a forum for discussing the frontiers of the occupational therapy profession. Topics may include: research in progress, new developments, and salient professional issues.

Pathology (PATH)

301. *Basic Pathology*. I. 2 Hr. PR: Enrollment in dental hygiene or physical therapy, or consent. A study of the basic pathologic processes in man.

302. *Oral Pathology*. II. 3 Hr. PR: PATH 301, dental hygiene major, or consent. Application of fundamental knowledge of general pathology to pathological conditions that occur in the oral cavity.

601. *Special Studies in Oral Pathology*. (For dental and graduate students, residents, and interns.) I. 1-3 Hr. PR: PATH 738 and PATH 753. Advanced study of local or systemic disease processes affecting oral structures through seminars, assignment of specific topics, or research activities.

728. *General Pathology*. (For dental and graduate students). II. 5 Hr. PR: Consent. The broad spectrum of human diseases is studied at the clinical, physiological, and biochemical levels.

738. Oral Pathology 1. 3 Hr.

751. *Mechanisms of Human Disease*. 12 Hr. (For medical and selected graduate students in the medical sciences, with instructor consent.) Integrated study of disease using structure-function relationships. Includes participation in pathology departmental activities (postmortem exams and other diagnostic procedures), student presentations of clinical materials, case study discussions, and lectures.

753. *Oral Pathology 2*. (For dental students.) I. 2 Hr. PR: PATH 738 or consent. Continuation of PATH 738.

755. *Clinico-Pathologic Correlation Conference*. (For dental students.) II. 1 Hr. PR: PATH 738 and PATH 753 or consent. Histopathologic correlation with clinical case histories and presenting signs and symptoms presented in a case-based learning format.

782. *Advanced Oral Histopathology*. (For dental and graduate students, residents, and interns.) I, II. 1-2 Hr. PR: PATH 738 and PATH 753 or consent. An elective seminar stressing the significant microscopic features and diagnosis of various oral lesions.

790. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: (PATH 301 and PATH 302) or (PATH 728 and PATH 738 and PATH 753.) Supervised practice in college teaching of pathology. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be S/U.)

791. *Advanced Study*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and/or research.

793. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *Seminar*. I, II, S. 1-6 Hr. Seminars arranged for advanced graduate students.

795. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. I, II, S. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

798. *Thesis or Dissertation*. I, II, S. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. I, II, S. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through enrollment in his/her department's graduate colloquium to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. (Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.)

Pediatrics (PEDI)

731. *Clinical Clerkship in Pediatrics*. (Third year.) 8 Hr. Cr. Required of third-year medical students. See description of clinical clerkship under MED 731. Clerkship in pediatrics occupies six weeks.

791. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

Pharmacology and Toxicology (PCOL)

260. *Pharmacology*. (For undergraduate students in the paramedical sciences.) 3 Hr. Interactions of clinically useful therapeutic agents with the mammalian systems.

Physical Therapy (PT)

300. *Essentials of Clinical Anatomy*. 4 Hr. A study of human gross anatomy, micro anatomy, and embryology with major emphasis on the musculoskeletal system.

301. *Professional Foundations*. 4 Hr. Introduction to fundamentals of professional behavior for the physical and occupational therapist. Includes units on communication, documentation, ethics, interdisciplinary teamwork, licensure requirements, and medical terminology.

302. *Survey of Clinical Problem-Solving and Scientific Inquiry*. 2 Hr. An introduction to analysis of clinical and research problems, including strategies for problem analysis and outcome.

303. *Functional Movement Across the Lifespan*. 2 Hr. An overview of motor learning including acquisition of developmental patterns, motor control, motor skill acquisition. This course also provides an overview of the effects of normative processes of aging on neuromotor patterns in occupational performance. (Equiv. to OTH 303.)

304. *Clinical Sciences*. 4 Hr. An introduction to pathology, radiology, pharmacology, hematology and laboratory tests specific to the patient population encountered by the physical therapist.

306. *Kinesiological Foundations*. 4 Hr. PR: Admission to professional program in PT. Functional anatomical correlations and human movement. Statics, biomechanics, dynamics, and functional movement analysis. (2 hr. lec., 4 hr. lab.)

307. *Neurobiologic Foundations*. 4 Hr. PR: Enrolled in professional sequence. Basic and clinical applications of neuroanatomy and neurology. Includes lectures on neurophysiological basis of physical and occupational therapy practice. (3 hr. lec., 2 hr. lab.) (Equiv. to OTH 307.)

308. *Evaluation Procedures*. 3 Hr. Theory and practice in evaluation procedures used by therapist. Includes Manual Muscle Test, isokinetic muscle testing, and assessment of components of movement, posture, balance, and hand function. (1 hr. lec., 2 hr. lab.) (Equiv. to OTH 308.)

309. *Introduction to Clinical Decision Making*. 1 Hr. Introduction to the problem-based learning method utilizing guided case study presentations. Students learn to obtain appropriate patient history and background, identify learning issues and synthesize information from a variety of sources to present and appropriate plan of physical therapy management of various patient dysfunctions. (Will be graded pass/fail.)

321. *Developmental Life Tasks*. 3 Hr. Life-span human development across cognitive, psychosocial, and neuromotor domains with particular emphasis on applications to physical or occupational therapy interventions. Cultural influences in health and illness.

384. *Clinical Education 1*. 1 Hr. Students observe various members of the health care team in practice. Students practice verbal and written communication skills. Course open to PT majors. (Contact hours—3.)

400. *Advanced Clinical Anatomy*. 2 Hr. This course presents advanced problem-based study in select topics dealing with clinical application of gross anatomy to physical therapy practice. Laboratory work includes dissection and computer-based instructional sessions.

401. *Clinical Sciences 2*. 4 Hr. Introduction to selected topics in clinical medicine which are basic to physical therapy practice. Topics include metabolic and endocrine disorders, oncology, dermatology, wound care and burns. (Contact hours—4.)

402. *Clinical Decision Making 1*. 2 Hr. Continuation of preparation of critical thinking and decision making in the clinic. Emphasis is on autonomous practice and decisions regarding referral to other members of the health care team. Students work in small groups in a problem-based learning format. (Contact hours—2.) (Will be graded on a pass/fail basis.)

404. *Physical Therapy Procedures 1*. 3 Hr. Introduction, theoretical basis, and laboratory practice of procedures basic to physical therapy, such as gait training, wheelchair management, and massage. Format for the class is primarily laboratory/demonstration with time to practice the various techniques. (Lec. 1 hr. + lab. 4 hr. = contact 5 hr.)

406. *Cardiopulmonary Rehabilitation*. 3 Hr. Correlation of anatomy, physiology, and pathology for the treatment of cardiopulmonary conditions. Laboratory in cardiopulmonary evaluation, cardiac and pulmonary rehabilitation procedures, and respiratory treatment techniques. Lecture and case presentations in appropriate medical and surgical conditions (Contact hours—3.)

410. *Orthopedic Physical Therapy 1*. 4 Hr. Evaluation and rehabilitation of mechanical disorders of the spine and upper extremities. Course includes lecture, case study, and laboratory practice of evaluation and treatment skills common to physical therapy management of orthopedic problems. (Lec. 2 hr. + lab. 4 hr. = contact 6 hr.)

416. *Clinical Decision Making 2*. 3 Hr. Graded as pass/fail only. Continuation of preparation for critical thinking and decision making in the clinic. Emphasis is on interdisciplinary team format.

417. *Geriatric Physical Therapy*. 2 Hr. Students are provided information about medical and psychosocial factors associated with aging. Study of the role of physical therapy in geriatrics, including laboratory practice of common evaluation and treatment procedures. (2 hr. lec.)

419. *Professional Values*. 3 Hr. PR: Majors only. Students investigate various professional, ethical, and practice issues through written assignments and class presentations. Students study Appalachian culture and the effects of cultural mores on professional practice.

420. *Therapeutic Physical Agents*. 4 Hr. PR: Physical therapy majors only; must have successfully completed the required previous coursework in the professional sequence. Students learn theory and background of various physical therapeutic agents. Student practice application of agents in laboratories.

425. *Physical Therapy Procedures 2*. 3 Hr. Theory and clinical application of therapeutic exercise techniques. (2 hr. lec., 2 hr. lab.)

450. *Orthopedic Physical Therapy 2*. 4 Hr. Continuation of PT 410 format and is a continuation of that course. Evaluation and rehabilitation of mechanical disorders of the lumbar spine and lower extremity is emphasized. (2 hr. lec. and 4 hr. lab.)

485. *Clinical Education 2*. I. 2 Hr. PR: Successful completion of all preceding professional coursework. CPR certification. Practice of basic clinical and written and verbal skills. Includes one full-time, one-week supervised clinical rotation with a licensed physical therapist. Student will submit a case report based on a client seen during that rotation. (Lec. 1 hr., other 1 hr., contact 2 hr.)

498. *Honors. I, II, S.* 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.

500. *Health Care Issues in PT.* 2 Hr. PR: Majors only. The roles of physical therapists as advocates of people with disabilities are discussed. Investigation of community and home barriers is included. Students and clinicians discuss the roles of and demands on physical therapists in various practice settings.

501. *Management for PT Practice.* 3 Hr. PR: Majors only. Principles of business and management are covered as they apply to contemporary physical therapy practice. Fiscal management, risk management, marketing, and program improvement are addressed.

502. *PT Research 1.* 3 Hr. Introduces research theory and application with special emphasis on physical therapy. Includes elements of research design, hypothesis testing, methodology, literature review, analysis, and statistical methods. Students are required to complete a research proposal.

503. *Pediatric Physical Therapy.* 2 Hr. Survey of developmental conditions commonly seen in pediatric physical therapy. Includes laboratory practice of evaluation, treatment planning, and clinical problem solving.

505. *Prosthetics and Orthotics.* 3 Hr. Presents the principles of biomechanics as they apply to prosthetic and orthotic prescription and fabrication. Student learns how to plan and implement rehabilitation programs for patients that must use orthotic or prosthetic. (2 hr. lec., 2 hr. lab.)

506. *Neurologic Physical Therapy.* 4 Hr. Prepares physical therapy students to perform examinations and treatments of patients with a variety of neurologic diagnoses. Introduces the students to assistive technology and adaptive equipment as adjuncts to treatment.

550. *Education in PT Practice.* 3 Hr. Designed to allow students to practice the fundamental elements of developing instructional units for a variety of audiences. The students will produce educational materials for use in physical therapy practice.

551. *PT in the Community.* 3 Hr. PR: Majors only. Students investigate community services and the role of the physical therapist in promotion of community health.

580. *Case Reports Seminar.* 2 Hr. PR: Majors only. Students prepare oral and written case reports based on their patient care experiences.

584. *Clinical Education 2.* 3 Hr. PR: Physical therapy majors only; must have completed first two years of the professional sequence. Students practice full-time for 12 weeks under the direction of licensed physical therapists and participate in rural health projects.

585. *Clinical Education 4.* 6 Hr. (Majors only.) Students practice full-time for twelve weeks under the direction and supervision of licensed physical therapists.

591. *Advanced Topics. I, II, S.* 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

690. *Teaching Practicum. I, II, S.* 1-3 Hr. PR: Consent. Supervised practice in college teaching of physical therapy. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be S/U.)

691. *Advanced Topics. I, II, S.* 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

697. *Research. I, II, S.* 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

Physiology (PSIO)

241. *Elementary Physiology. II.* 4 Hr. PR: College biology and chemistry, or consent. (For undergraduate students in paramedical sciences.) Systematic presentation of basic concepts.

441. *Mechanisms of Body Function*. I. 4 Hr. PR: College chemistry, biology, physics, and algebra or graduate status and Consent. A systematic examination of the homeostatic functions of the human body with emphasis on the physicochemical mechanisms involved. Pathophysiology and clinical correlations are introduced in relation to normal physiology. (4 hr. lec.)

Surgery (SURG)

701. *Introduction Laboratory Animals Experiments*. 3 hr.

741. *Clinical Clerkship in Surgery*. (Third year.) CR. Required of third-year medical students. Clinical clerks are assigned responsibility for hospitalized surgical patients under supervision of house staff and attending surgeons. Students are an integral part of the team providing diagnostic and treatment services and are expected to take histories, perform physical examinations, and participate in ward and laboratory procedures. A course of surgical lectures, designed to outline surgical core curriculum, is given concurrently. The student is expected to attend the daily rounds and conferences arranged by the department.

791. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

797. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

799. *Graduate Colloquium*. I, II, S. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through enrollment in his/her department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. (Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.)

School of Nursing

Nursing (NSG)

110. *Health and the Caring Professions*. 3 Hr. Health promotion and risk reduction; data collection; cultural diversity; values that contribute to health; interpersonal communication in promoting professional relationships.

(For Nursing Majors Only)

221. *Human Responses 1*. 3 Hr. PR: NSG 110 and COREQ: NSG 225, sophomore standing or consent. Human responses that promote health throughout the life span; individual health assessment.

223. *Seminar 1: Professional Role Development*. 1 Hr. PR: NSG 110, sophomore standing or consent. Characteristics of self in role transition; values and beliefs; personal and professional behaviors in nursing care.

225. *Nursing Interventions 1*. 3 Hr. COREQ: NSG 221; PR: Sophomore standing or consent. Critical thinking in application of the nursing process in individuals with altered mobility, comfort, or potential infection; health protection, promotion, and maintenance interventions.

241. *Human Responses 2*. 2 Hr. PR: NSG 221 and 225. COREQ: 245. Enhances student understanding of human responses to minor deviations in health throughout the life span; professional role in health restoration; family health assessment.

243. *Seminar 2: Professional Role Development*. 2 Hr. PR: NSG 223. Emphasis on developing caring behaviors through examination of issues related to moral/ethical integrity; values, culture, and family.

245. *Nursing Interventions 2*. 4 Hr. PR: NSG 221 and NSG 225. COREQ: NSG 241. Critical thinking in the application of the nursing process to individuals with minor deviations in health protection, health restoration, and health promotion/maintenance.

332. *Human Response to Multiple Psysiological System Dysfunction*. 5 Hr. PR: NSG 361 or consent. COREQ: NSG 335. The focus is on the human response to physiological system dysfunction. The emphasis is on the professional nursing role in complex psychosocial health restoration.

333. *Seminar 3: Professional Role Development*. 2 Hr. PR: NSG 243 or consent. Managing individual/family/group systems. Focus on ethical decision making in health care situations.

335. *Nursing Interventions 3*. 5 Hr. PR: NSG 361 or consent. Advanced physiological assessment and independent nursing interventions that promote health restoration. Advanced collaborative nursing activities.

340. *Professional Role Transition*. 3 Hr. PR: RN Licensure. The course focuses on concepts and principles of professional nursing inherent in the curriculum of the School of Nursing. Emphasis is placed on how these concepts and principles affect nursing role.

343. *Seminar 7: Professional Role Development*. 2 Hr. PR: NSG 340. Seminar with emphasis on the role of the professional nurse within the multidisciplinary team. Focus is on decision making in life-span ethical dilemmas and on effective communication within the health care team.

351. *Psychosocial Dysfunction*. 2 Hr. PR: NSG 361 or or consent; COREQ: NSG 355. Human response to multiple system dysfunction; professional nursing role in complex psychosocial health restoration.

353. *Seminar 4: Professional Role Development*. 2 Hr. PR: NSG 333 or consent. Communication skills within the the multidisciplinary team; collaborative roles and team dynamics.

355. *Nursing Interventions 4*. 5 Hr. PR: NSG 361 or consent. COREQ: NSG 351. Advanced psychosocial assessment and independent nursing interventions to promote health restoration; advanced collaborative nursing activities.

356. *Alterations in Psychosocial Health*. 3 Hr. PR: PSYC 241. COREQ: NSG 351 and NSG 355. Normal psychosocial functions change as a result of altered health; integration of developmental changes and preventive aspects of health.

361. *Health Assessment*. 3 Hr. PR: NSG 225 or consent. Comprehensive, in-depth assessment of the client's health status, health patterns, physical examination, and health history. Interviewing techniques including taped interactions and accurate recording of data for clients across the life span.

369. *Writing in Nursing*. 1 Hr. PR or CONC: NSG 333, NSG 343 or NSG 353. Integration of the content learned in selected courses with writing about important topics; must be taken concurrently with an approved *Professional Nursing Role Seminar*.

421. *System Responses to Physiological Dysfunction*. 3 Hr. PR: Senior standing in nursing or consent. COREQ: NSG 425. Emphasis on professional nursing role in supporting individual/family/group responses to acute life threatening situations involving vulnerable populations; focus is on nursing role in providing care to unstable individuals/families/groups.

423. *Seminar 5: Professional Role Development*. 2 Hr. PR: NSG 353 or consent. The professional's role in creating and managing the health care milieu; focus is on the nurse manager role and interventions in support of the client/family experiencing acute or long term health problems.

425. *Nursing Interventions 5*. 6 Hr. PR: Senior standing in nursing or consent. COREQ: NSG 421. Professional nursing role in supporting human responses to acute, life-threatening situations involving identified vulnerable populations; focus is on therapeutic nursing interventions specific to aid human responses of individuals with physiologic instability and their families.

433. *Seminar 8: Professional Role Synthesis*. 3 Hr. PR: NSG 343. Emphasis is on implementation of the professional nursing role within a changing health care system. Focuses on analysis of societal, institutional, and economic factors that affect the delivery of health care.

441. *Community Response to Health Promotion*. 3 Hr. PR: Senior standing in nursing or consent. COREQ: NSG 445. Community health nursing processes with emphasis on the professional nursing role in the assessment of community health needs and identification of health action potential.

443. *Seminar 6: Professional Role Development*. 2 Hr. Emphasis on professional nursing role in health promotion/ risk reduction in groups/communities of vulnerable populations. Focuses on multidisciplinary team approaches to problem solving in community health.

445. *Nursing Interventions 6*. 6 Hr. PR: Senior standing in nursing or consent. COREQ: NSG 441. Emphasis on the collaborative role of the nurse in assisting communities to develop and implement plans for health promotion/risk reduction across the life span. Focus is on vulnerable populations.

476. *Introduction to Nursing Research*. 3 Hr. PR: STAT 211 or consent. Theory, concepts, and methods of the research process intended to provide a basic understanding that is necessary for intelligent consumership of research findings.

493 A-Z. *Special Topics*. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

495. *Independent Study*. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

496. *Senior Thesis*. 1-3 Hr. PR: Consent.

497. *Research*. 1-6 Hr. Independent research projects.

622. *Theory and Critical Analysis*. 3 Hr. Introduction to the theoretical foundations of the discipline of nursing as a basis for applying critical thinking skills to the development of a conceptual framework for nursing.

623. *Concepts of Advanced Nursing*. 2 Hr. PR or CONC: NSG 622. Exploration and evaluation of theories and research in leadership, education, organization, and management concepts applicable in the advanced practice of nursing.

624. *Advanced Pathophysiology*. 4 Hr. Theoretical basis of pathophysiological changes in acute and chronic illness across the lifespan. This course lays the foundation for subsequent courses in diagnosis management and therapeutic interventions.

625. *Primary Care: Rural Families 1*. 3 Hr. PR: NSG 622. Introduction to the knowledge and skills basic to the assessment of health status, diagnosis, treatment, and evaluation in the advanced practice of nursing.

626. *Health Promotion for All Ages*. 2 Hr. Exploration of the theoretical foundations of health promotion, prevention of illness, and maintenance of function across the life-span applicable to the advanced practice of nursing.

627. *Research, Evaluation, and Analysis*. 5 Hr. PR: NSG 622. An overview of research, measurement, and evaluation models useful to nursing practice.

630. *Family, Community, Rural Health Systems*. 2 Hr. PR: NSG 622. Exploration and analysis of theories and research on family, community, and rural health systems applicable in the advanced practice of nursing.

631. *Advanced Pharmacology*. 3 Hr. This course reviews and updates the nurse practitioner's knowledge of pharmacology and therapeutics. Overviews of underlying disease processes and reviews of pharmacological principles of available therapeutic agents are presented.

660. *Primary Care: Rural Families 2*. 4 Hr. PR: NSG 625. Application of the theoretical foundations of advanced practice nursing in rural family health care; management of care for prevention, intervention, and evaluation.

661. *Rural Family Health Practicum 1*. 5 Hr. PR or CONC: NSG 660. Implementation of theory-based advanced nursing practice with individuals, families, and groups in the rural community systems; student development of the advanced practice role in managing, consulting, and caring for families.

662. *Rural Family Health: Practicum 2*. 5 Hr. PR: NSG 661. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to individuals, families, and groups in rural areas.

672. *Education Practicum*. 6 Hr. PR: NSG 625, *Specialty pPracticum 1* in area of interest. Supervised practice in the application of theories and methods related to nursing education.

680. *Health Policy: Issues and Ethics*. 3 Hr. PR: NSG 622 or consent. A focus on the social, political, technological, ethical, and economical dynamics that shape health care delivery.

691 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses. .

697. *Research*. 1-3 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation guided by a student-graduate faculty contact based on the course objectives and culminating in a written product. (Grading may be S/U.)

726. *Research Methods 1*. 3 Hr. Advanced qualitative and quantitative research methods relevant to conducting research in nursing are studied, focusing on the study of phenomena that support clinical practice. Interrelationships among questions, theoretical framework, and design are emphasized.

728. *Theoretical Basis of Nursing*. 3 Hr. PR: NSG 722. This course builds on philosophical basis of nursing. Discovery and verification of scientific knowledge are addressed by focusing on theory development. Methodologies include concept analysis and evaluation of middle-range theories of nursing and related sciences.

729. *Research Methods 2*. 3 Hr. PR: NSG 726 and PR or CONC: STAT 512. This course continues the study of the quantitative and qualitative research process extending from methodology to analysis and interpretation. It includes sampling theory, power, measurement, data collection procedures, and advanced analysis procedures.

734. *Use of Data*. 3 Hr. PR: NSG 726 and NSG 729. This course focuses on use of the following data bases: clinical, financial, health services, nursing, local, state, and national. The uses of existing data in clinical and policy decisions and in research will be explored.

735. *Principles: Nursing Education*. 3 Hr. PR: EDP 700. This course examines the research base of educational strategies in nursing education in classroom and clinical settings. The course also examines external determinants on nursing curriculum, accreditation issues, and evaluation of nursing programs.

781. *Research Mentorship 1*. 1 Hr. PR: NSG 729. In this guided practicum, the student's research skills are developed and cultivated through participation in the mentorship process with an experienced researcher (the chairperson or his/her designee).

782. *Research Mentorship 2*. 1 Hr. PR: NSG 781. This is the second guided practicum in which the student participates in the mentorship process for the purpose of continued development of the student's research skills.

783. *Dissertation Seminar 1*. 2 Hr. PR: NSG 729. This seminar provides an opportunity for continued knowledge synthesis related to the selected topic of research. Students will participate in proposal presentation and critique. The expectation is a National Research Service Award Predoctoral Fellowship Application.

784. *Dissertation Seminar 2*. 2 Hr. PR: NSG 783. This seminar provides an opportunity for refinement of the proposal developed in NSG 783. Student critique of presented proposals, as well as feedback of faculty, is expected to result in the dissertation proposal.

791 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. 1-6 Hr. Directed study, reading, and/or research.

793. *Special Topics*. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *Seminar*. 1-6 Hr. Seminars arranged for advanced graduate students.

795. *Independent Study*. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

797. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

798. *Thesis or Dissertation*. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. (Grading may be S/U.)

799. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities and participate in its academic and cultural programs. Note: graduate students not actively involved in coursework or research are entitled, through enrollment in his/her department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.

School of Pharmacy

Professional and Graduate Courses

Pharmacy (PHAR)

449. *Drugs and Medicines. I*. 3 Hr. (Not intended for pharmacy students.) PR: General biology or consent. A course intended to introduce a variety of university students to information about drugs and pharmaceutical preparations to include their source, administration, action, use and abuse.

498. *Honors*. 1-3 Hr. PR: Students in Honors Program and consent by the Honors director. Independent reading, study, or research.

691. A-Z *Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

693. A-Z *Special Topics*. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

694. A-Z *Seminar*. 1-6 Hr. Seminars arranged for advanced graduate students. (Grading may be S/U.)

696. A-B *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program. Grading may be S/U.

697. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

700. *Pharmacy as a Profession*. 3 Hr. PR: First professional year standing or consent. Introduces students to the concept of professionalism, the scope of pharmacy practice opportunities, the health care system as it relates to pharmacy, and other contemporary issues in pharmacy practice.

701. *Pharmaceutical Care Lab 1*. 2 Hr. PR: First professional year standing or consent. Students will develop skills in medical terminology, communications, information retrieval, dispensing, compounding, calculations, pharmaceutical care, and problem-solving skills.

702. *Physical Pharmacy*. 3 Hr. PR: First professional year standing or consent. Designed to teach students the basic principles related to physical phenomena and stability as well as introduce them to a variety of factors that influence drug dosage form design and stability.

707. *Pharmacy Law and Ethics*. 3 Hr. PR: First professional year standing or consent. The legal and ethical basis of pharmacy practice. Students learn about federal and state statutes, rules, and regulations that affect pharmacy practice. Ethics related situations that can arise during pharmacy practice will also be discussed.

708. *Pharmaceutics*. 3 Hr. PR: PHAR 702. Pharmaceutics builds upon the concepts discussed in physical pharmacy and focuses on drug dosage forms and delivery systems, their design, drug delivery to the body through a variety of routes, and factors affecting drug delivery.

709. *Immunology, Biotechnology, and Anti-infectives*. 3 Hr. PR: First professional year standing or consent. Students will learn basic functions of the immune system, elements of the pharmaceutical applications of biotechnology, and be introduced to the chemotherapy of infections.

710. *Practicum*. 1 Hr. PR: First professional year standing or consent. The course exposes students to a variety of pharmacy practice settings and patient care experiences. Students also receive training in first aid and cardiopulmonary resuscitation.

711. *Chemical Properties of Drugs*. 1 Hr. PR: First professional year standing or consent. An introduction to principles of chemical stability and chemical properties as they relate to drug molecules. Topics to be covered include functional group analysis, solubility, oil/water partitioning, organic acids and bases, and drug decomposition.

712. *Pharmaceutical Care Lab 2*. 2 Hr. PR: First professional year standing or consent. Continuation of PHAR 701.

715. *Pathophysiology/Therapeutics 1*. 4 Hr. PR: Second professional year standing or consent. Principles and concepts of pathophysiology and pharmacotherapeutics. An organ system approach to disease states and their therapeutic management will be followed.

716. *Chemistry of Drug Action 1*. 3 Hr. PR: PHAR 711 or consent. Provides a basic understanding of relationships between the chemical structure of a drug and its biological effect. Physicochemical properties, enzymatic transformations and structure-activity relationships (SAR) of important pharmaceutical agents are discussed. pharmaceutical agents are discussed.

720. *Patient Health Education*. 2 Hr. PR: Second professional year standing or consent. Interpersonal communication skills will be enhanced in the areas of patient-centered and colleague-centered communications. Students will learn processes for providing pharmaceutical care (e.g., interviewing and counseling patients; formulating a plan; monitoring; and documenting information).

723. *Pharmaceutical Care Lab 3*. 2 Hr. PR: Second professional year standing or consent. Continuation of PHAR 712.

724. *Pharmaceutical Care Lab 4*. 1 Hr. PR: Second professional year standing or consent. Continuation of PHAR 723.

725. *Pathophysiology/Therapeutics 2*. 4 Hr. PR: PHAR 715 or consent. A continuation of PHAR 715.

726. *Chemistry of Drug Action 2*. 2 Hr. PR: PHAR 716 or consent. A continuation of PHAR 716.

727. *Medical Literature Evaluation*. 2 Hr. PR: Second professional year standing or consent. Will be built upon information describing drug literature resources presented previously with emphasis on the review and evaluation of the primary literature, secondary and computerized resources, drug policy management, and drug information controversies.

728. *Pharmacy Management*. 2 Hr. PR: Second professional year standing or consent. This course provides an introductory survey of the basic principles of personnel and fiscal management as they apply to organizational planning and decision-making, organizational design and structure, leadership and control in organizations, and the issues facing pharmacy managers.

730. *Pathophysiology/Therapeutics 3*. 5 Hr. PR: PHAR 725 or consent. Principles and concepts of pathophysiology and pharmacotherapeutics. An organ system approach to disease states and their therapeutic management will be followed.

731. *Biopharm and Pharmacokinetics*. 3 Hr. PR: Third year professional standing or consent. Fundamental principles of biopharmaceutics (physicochemical and biological processes affecting drug transit into the systemic circulation) and pharmacokinetics (kinetic and biological processes a drug undergoes upon entering the body).

732. *Non-Prescription Drugs*. 3 Hr. PR: Third year professional standing or consent. An advanced-level course on the appropriate selection and use of non-prescription drug products in the contemporary practice setting, the basis for self-medication, assessment of patient condition, and approach to patient counseling.

733. *Pharmacy Systems*. 2 Hr. PR: Third-year professional standing or consent. Basic principles of financial management as they apply to the day to day operations in pharmacy systems present in institutional, community, long-term care facilities, and other pharmacy venues.

735. *Pharmaceutical Care Lab 5*. 1 Hr. PR: PHAR 724. Continuation of PHAR 724.

736. *Pharmaceutical Care Lab 6*. 1-Hr. PR: Third professional year standing or consent. Experience in pharmaceutical compounding, patient assessment and monitoring, professional/ethical decision-making, pharmacokinetic dosing of medications, and prevention of adverse drug-related events and medication errors.

737. *Disease Prevention Health Promotion*. 2 Hr. PR: Third-year professional standing or consent. This course exposes pharmacy students to pharmacoepidemiology and public health. Instruction focuses on pharmacists as integral to preventing and detecting disease and promoting community health. Emphasis is given to rural health care and Appalachian culture.

738. *Outcomes Assessment and Quality Improvement*. 2 Hr. PR: Third professional year standing or consent. Outcomes assessment and quality improvement will expose students to the development and implementation of formularies, drug use evaluations, outcomes assessment and quality improvement. Emphasis will be placed on how these issues relate to pharmaceutical services.

739. *Therapeutic Patient Monitoring*. 3 Hr. PR: Third professional year standing or consent. Employs both didactic and experiential instruction to provide students with the knowledge and skills required to assess the health status of medicated patients with special emphasis on monitoring therapeutic endpoints.

740. *Pathophysiology/Therapeutics 4*. 3 Hr. PR: PHAR 730 or consent. Principles and concepts of pathophysiology and pharmacotherapeutics. An organ system approach to disease states and their therapeutic management will be followed.

741. *Clinical Pharmacokinetics*. 3 Hr. PR: PHAR 731 or consent. This course will review advanced concepts in pharmacokinetics and cover the basic pharmacokinetic properties of commonly used drugs and apply these principles to drug dosing, patient management, and rational therapeutic drug monitoring.

745. *Hospital Pharmacy and Administration*. 3 Hr. PR: Enrollment in the School of Pharmacy or consent. Basic concepts of the organization, management, and services of hospitals and pharmacist's role in the modern hospital. Emphasis on principles of hospital pharmacy administration and practice.

747. *History of Pharmacy*. 2 Hr. Gives the student a deeper appreciation of the background of pharmacy and its development from ancient times to present.

749. *A-Z Pharmaceutical Investigations*. 2-3 Hr. PR: Consent. Original investigation in pharmaceuticals, medical chemistry, pharmacology, pharmaceutical systems and policy, or clinical pharmacy. (Grading may be S/U.)

760. *Medicine Rotation 1*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in an acute care setting.

761. *Medicine Rotation 2*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in an acute care setting.

762. *Ambulatory Care Rotation 1*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in an ambulatory care setting.

763. *Ambulatory Care Rotation 2*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in an ambulatory care setting.

764. *Elective Rotation 1*. 4-Hr. PR: Fourth professional year standing or consent. Experience in an acute care or ambulatory care setting, research environment, or non-traditional pharmacy site.

765. *Elective Rotation 2*. 4-Hr. PR: Fourth professional year standing or consent. Experience in an acute care or ambulatory care setting, research environment, or nontraditional pharmacy site.

766. *Elective Rotation 3*. 4-Hr. PR: Fourth professional year standing or consent. Experience in an acute care or ambulatory care setting, research environment, or non-traditional pharmacy site.

767. *Elective Rotation 4*. 4-Hr. PR: Fourth professional year standing or consent. Experience in an acute care or ambulatory care setting, research environment, or nontraditional pharmacy site.

768. *Elective Rotation 5*. 4-Hr. PR: Fourth professional year standing or consent. Experience in an acute care or ambulatory care setting, research environment, or non-traditional pharmacy site.

770. *Community Rotation 1*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in a community pharmacy setting.

771. *Community Rotation 2*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in a community pharmacy setting.

772. *Institutional Rotation 1*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in a health system setting.

773. *Institutional Rotation 2*. 4-Hr. PR: Fourth professional year standing or consent. Experience in the delivery of pharmaceutical care in a health system setting.

775. *Advanced Biopharmaceutics*. 3 Hr. Concepts of biopharmaceutics and pharmacokinetics in relation to the design and evaluation of dosage forms and determination of rational dosage regimens in health and disease.

776. *Advanced Pharmaceutics*. 3 Hr. Physicochemical and biopharmaceutical principles involved in disperse systems (liquid, semi-solid, and solid) which function as dosage forms. Considerations of properties of solid dispersions, micromeritics, diffusion of liquid dispersions, interfacial phenomena, emulsification, suspensions, prolonged action medication, etc.

777. *Economics of the Pharmaceutical Industry*. 3 Hr. History, background, and formation of major drug industries. Oligopolistic practices, mergers, combines, costs of research, and production.

778. *Advanced Pharmaceutical Analysis 1*. 3 Hr. Spectroscopic and chromatographic methods of analysis with emphasis on their applications in pharmaceutical problems and in biological sciences.

790. *Teaching Practicum*. 1-3 Hr. PR: Consent. Supervised practice in college teaching of pharmacy. Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It will also present a mechanism for students not on assistantships to gain teaching experience. (Grading will be S/U.)

791. *A-Z Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

792. *Directed Study*. 1-6 Hr. Directed study, reading, and/or research.

793. *A-Z Special Topics*. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

794. *A-Z Seminar*. 1-6 Hr. Seminars arranged for advanced graduate students.

795. *Independent Study*. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

796. *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

797. *Research*. 1-15 Hr. PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

798. *Thesis or Dissertation*. 2-4 Hr. PR: Consent. Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of their student's reports, thesis, or dissertations. Grading may be S/U.

799. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking coursework credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs. Note: Graduate students not actively involved in coursework or research are entitled, through enrollment in their department's graduate colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by the program, and retain all of the rights and privileges of duly enrolled students. (Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.)

For a description of all graduate-level (Year III) courses, please refer to the on-line West Virginia University Graduate Catalog at www.ia.wvu.edu:8888/.

Health Sciences Faculty and Staff

Senior Staff

Timothy J. Palencik, Associate Vice President, UHA.
Ann Chester, Ph.D., Assistant Vice President.
John T. Coughlin, Director of Communications.
Daniel Durbin, Director, Budget and Financial Operations—HSC.
Harold H. Harper, M.S., Special Assistant to the Vice President.
Darold E. Blehschmidt, Assistant to the Vice President.
Gary B. Miller, Director, Maintenance Engineering.
Terry Burton, Interim Director, Health Sciences Library.
Laura Roth, Director, Information Systems Operations.
Amir Ramazen, Director, Academic Technologies.

School of Dentistry

Camillo A. Alberico, D.D.S. (Marquette U.). Professor Emeritus, Endodontics.
Timothy A. Atkinson, D.D.S. (U. Detroit). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
Michael D. Bagby, D.D.S. (Loyola U.). Director of Dental Materials. Associate Professor, Operative Dentistry.
Lester H. Bakos, D.D.S. (WVU). Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
Frank S. Balaban, D.D.S. (WVU). Clinical Professor, Endodontics.
Arthur J. Beaumont Jr., D.D.S. (WVU). Professor, Prosthodontics.
Henry J. Bianc, Jr., D.D.S. (U. Md.). Professor Emeritus, Prosthodontics.
W. Robert Biddington, D.D.S. (U. Md.). Professor Emeritus, Endodontics.
Byron H. Black, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
Joseph J. Bonello, D.D.S. (U. Pitt.). Clinical Associate Professor, Orthodontics.
Dale C. Bowers, D.D.S. (Ohio St. U.). Professor, Diagnostic Services.
Glenn A. Boyles, D.D.S. (WVU). Clinical Assistant Professor, Pediatric Dentistry.
Eric R. Brannon, D.D.S. (WVU). Clinical Associate Professor, Dental Practice and Rural Health.
Regina R. Brannon, D.D.S. (WVU). Clinical Associate Professor, Dental Practice and Rural Health
Emmett F. Brown, D.M.D. (U. Pitt.). Professor Emeritus, Dental Practice and Rural Health.
K. Birgitta Brown, D.M.D. (Wash. U.). Associate Professor, Operative Dentistry.
Leilani S. Brown, D.D.S. (WVU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
James G. Bryant, D.M.D. (U. Ky.). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
John W. Byers, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
Anthony L. Camele, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
John M. Carson, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
Damon E. Coffman, D.D.S. (WVU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
Kevin Conde, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
H. Lee Courtney, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
Richard J. Crout, D.M.D., Ph.D. (U. Pitt.). Associate Dean of Research. Professor, Periodontics.

Christina B. DeBiase, Ed.D. (WVU). Professor and Director. Dental Hygiene.

John H. Dempsey, D.D.S. (U of Md.). Clinical Associate Professor, Orthodontics.

Wayne E. Dolan, D.M.D. (S. Ill. U.). Clinical Associate Professor, Dental Practice and Rural Health.

Mark C. Durkee, D.D.S., Ph.D. (U. Md.). Assistant Professor, Orthodontics.

David E. Edwards, D.D.S. (WVU). Clinical Assistant Professor, Operative Dentistry.

Mohammad A. Farid, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.

David C. Fogarty, D.D.S., M.D. (WVU). Clinical Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

James R. Foor, D.D.S. (WVU). Professor, Operative Dentistry.

Cathryn Frere, M.S. (USC). Assistant Professor, Dental Hygiene.

Mohssen Ghalichebaf, D.D.S. (Ind. U.). Director of Maxillofacial Prosthodontics. Professor, Prosthodontics.

Joan C. Gibson-Howell, M.S. (U. Dayton). Associate Professor, Dental Hygiene.

Lewis Gilbert, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Jeffrey Gilmore, D.D.S. (Ohio St. U.). Clinical Assistant Professor, Orthodontics.

Marcia A. Gladwin, Ed.D. (WVU). Professor, Dental Hygiene.

Stephen C. Gladwin III, D.D.S. (Ohio St. U.). Professor Emeritus, Operative Dentistry.

Jacqueline J. Glover, Ph.D. (Georgetown U.). Adjunct Associate Professor, Dental Practice and Rural Health.

Susan A. Goodwin, D.D.S. (WVU). Adjunct Assistant Professor, Dental Practice and Rural Health.

William L. Graham, D.D.S. (U. Md.). Professor Emeritus, Diagnostic Services.

Catherine E. Graves, M.S. (WVU). Professor Emeritus, Dental Hygiene.

Robert W. Graves, D.D.S. (WVU). Professor and Chair, Oral and Maxillofacial Surgery, Hospital Dentistry.

James A. Griffin, D.D.S. (Baylor). Professor Emeritus, Endodontics.

John B. Haley Jr., D.D.S. (WVU). Clinical Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Joseph D. Hancock, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

George T. Harper, D.D.S. (WVU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

George W. Harper, D.D.S. (WVU). Professor, Prosthodontics.

Richard I. Hart, D.D.S. (U. Mich.). Professor Emeritus, Operative Dentistry.

David M. Hickman, D.D.S. (WVU). Professor, Dental Practice and Rural Health.

C. Keith Hieronimus, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.

Robert H. Hornbrook, D.D.S. (WVU). Professor and Chair, Periodontics.

Ronald C. House, D.D.S. (USC). Director. Assistant Professor, Operative Dentistry.

Robert M. Howell, D.D.S. (MCV). Professor and Chair, Oral Pathology.

Kent E. Jackfert, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

C. Russell Jackson, D.D.S. (WVU). Director. Associate Professor, Endodontics.

S. N. Jagannathan, Ph.D. (U. Bombay). Professor, Periodontics.

Stephen S. Johns, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.

Elizabeth C. Kao, D.M.D. (U. Penn.). Professor, Operative Dentistry.

Charles A. Kennedy, D.D.S. (WVU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Gordon G. Keyes, D.D.S., J.D. (U. Md., WVU). Professor, Oral Pathology.

Keith Kinderknecht, D.M.D. (U of Ky.). Associate Professor and Director, Prosthodontics.

Don W. Kines, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.

Darryl R. King, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Kerry Kirsch, D.D.S. (WVU). Clinical Assistant Professor, Orthodontics.
 William A. Klenk, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
 James Koelbl, D.D.S. (Loyola). Professor and Dean.
 Kavita Kohli, D.D.S. (U. Neb.). Associate Professor and Interim Director, Pediatric Dentistry.
 Barbara K. Komives-Norris, M.S. (Ohio St. U.). Professor Emeritus, Dental Hygiene.
 John K. Kuyk, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Stephen J. Kwiatkowski, D.D.S. (WVU). Professor, Prosthodontics.
 David A. Lattanzi, D.D.S. (Case West. Res. U.). Clinical Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Gary Lawson, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
 Michael E. Lessin, D.D.S. (U. Ill.). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Maurice W. Lewis, D.D.S. (WVU). Assistant Professor, Diagnostic Services.
 Chi Yi Lin, D.D.S. (NYU). Assistant Professor, Pediatric Dentistry.
 Scott Little, D.D.S. (Ohio St. U.). Clinical Assistant Professor, Orthodontics.
 Paul H. Loflin, D.D.S. (U. Md.). Clinical Professor, Dental Practice and Rural Health.
 Angela London, D.D.S. (WVU). Clinical Instructor, Pediatric Dentistry.
 J. Stephen Lovell, D.D.S. (WVU). Clinical Assistant Professor, Prosthodontics.
 William R. Marshall, D.D.S. (WVU). Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Chris Martin, D.D.S. (WVU). Assistant Professor, Orthodontics.
 William R. McCutcheon, D.D.S. (WVU). Professor, Dental Practice and Rural Health.
 Donald McLaurin, D.D.S., M.D. (Baylor, LSU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Daniel W. McNeil, Ph.D. (U. Ala.). Clinical Associate Professor, Dental Practice and Rural Health.
 Richard L. Meckstroth, D.D.S. (Loma Linda U., Calif.). Chair. Professor, Dental Practice and Rural Health.
 H. Darrell Milem, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
 David E. Miranda, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
 Susan K. Morgan, D.D.S. (WVU). Clinical Assistant Professor, Periodontics.
 Michael B. Moore, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.
 Donald J. Morrison, D.D.S. (U. Iowa). Professor Emeritus, Periodontics.
 Robert L. Murphy, M.S. (Cath. U. Am.). Adjunct Professor Emeritus, Periodontics.
 William A. Myers II, D.M.D. (U. Pitt.). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Donald E. Neil, D.D.S. (U. Detroit). Clinical Professor, Dental Practice and Rural Health.
 Peter W. Ngan, D.M.D. (Harvard). Chair. Professor, Orthodontics.
 Gerald Nieuwma, D.D.S. (U. Mich.). Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Joyce Okubo, B.S. (WVU). Clinical Instructor, Dental Hygiene.
 William M. Oscanyan, D.D.S. (WVU). Program Director. Professor, Oral and Maxillofacial Surgery, Hospital Dentistry. Charleston Division.
 James E. Overberger, D.M.D. (U. Pitt.). Director, Continuing Education. Professor, Dental Materials and Prosthodontics.
 John W. Perrine, D.D.S. (WVU). Clinical Associate Professor, Dental Practice and Rural Health.
 Robert G. Pifer, D.D.S. (WVU). Professor, Diagnostic Services.
 Jon Pike, D.D.S. (WVU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.
 Shelia S. Price, D.D.S. (WVU). Interim Associate Dean, Academic and Postdoctoral Affairs. Professor, Diagnostic Services.

David T. Puderbaugh, D.D.S. (WVU). Assistant Dean for Clinical Affairs. Professor, Dental Practice and Rural Health.

William F. Queen, D.D.S. (WVU). Clinical Associate Professor, Prosthodontics.

William A. Ray II, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.

Robert S. Raynes, D.D.S. (WVU). Associate Professor, Endodontics.

Thomas F. Razmus, D.D.S. (U. Mich.). Professor, Diagnostic Services.

Mark W. Richards, D.D.S. (U. Wash.). Associate Professor and Chair, Restorative Dentistry.

Vernon D. Rodeffer, D.D.S. (U. Md.). Associate Professor Emeritus, Operative Dentistry.

W. Dean Russell, D.D.S. (Emory U.). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Charles Sammons, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.

Robert E. Sausen, D.D.S. (U. Minn.). Professor Emeritus, Operative Dentistry.

Donald T. Sauter, D.D.S. (Ohio St. U.). Clinical Associate Professor.

Alex W. Skaff, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Donald E. Skaff, D.D.S. (WVU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

A. E. Skidmore, D.D.S. (WVU). Clinical Professor, Endodontics.

Norton P. Smith, D.D.S. (WVU). Professor, Prosthodontics.

Michael J. Sokolosky, D.D.S. (WVU). Clinical Assistant Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Carol A. Spear, M.S. (U. Mich.). Professor, Dental Hygiene.

Mark A. Spiker, D.D.S. (WVU). Clinical Assistant Professor, Dental Practice and Rural Health.

Robert J. Steelman, D.M.D., M.D. (Wash. U., WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Frank H. Stevens, D.D.S. (WVU). Assistant Dean for Alumni Affairs, Public Relations and Recruitment. Professor, Operative Dentistry.

John T. Stevens, D.D.S. (U. Penn.). Professor Emeritus, Operative Dentistry.

Charles J. Stewart, D.D.S. (WVU). Professor, Prosthodontics.

Robert N. Stuchell, D.M.D., (U. Pitt.). Director of AEGD Program. Professor, Periodontics.

Lawrence E. Syner, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

W. Christopher Taylor, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

James G. Thomas, D.D.S. (Temple U.). Professor Emeritus, Diagnostic Services.

John G. Thomas, Ph.D. (Syracuse U.). Clinical Professor, Periodontics.

Harold E. Tucker, D.D.S. (MCV). Professor Emeritus, Prosthodontics.

Louise Tupta-Veselicky, D.D.S. (WVU). Interim Associate Dean, Clinical Affairs. Associate Professor, Periodontics.

James E. Valentine, D.D.S. (WVU). Clinical Professor, Orthodontics.

David H. Walker, D.D.S. (WVU). Professor, Dental Practice and Rural Health, Charleston Division.

Robert L. Wanker, D.D.S. (WVU). Clinical Professor, Periodontics.

Bryan D. Weaver, D.D.S., M.D. (WVU). Assistant Professor and Director, Oral and Maxillofacial Surgery, Hospital Dentistry.

John T. Welch, D.D.S. (U. Md.). Professor Emeritus, Oral and Maxillofacial Surgery, Hospital Dentistry.

Stephen J. Wetmore, M.D. (U. Mich.). Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

John B. Wilfong, D.D.S. (WVU). Clinical Professor, Orthodontics.

William M. Wine, D.D.S. (WVU). Clinical Associate Professor, Oral and Maxillofacial Surgery, Hospital Dentistry.

Laura Withers-Boyles, D.D.S. (WVU). Clinical Assistant Professor, Pediatric Dentistry.
David Yates, D.M.D. (U. Louisville). Clinical Assistant Professor, Oral and Maxillo-
facial Surgery, Hospital Dentistry.
Jack S. Yorty, D.D.S. (WVU). Associate Professor, Operative Dentistry.

School of Medicine

Ahmed Aboraya, M.B.B.C. (U. Cairo–Egypt). Assistant Professor, Behavioral
Medicine and Psychiatry.
Muhammad Abou-Samra, M.D. (Syria). Instructor, Anesthesiology.
Ali Fawzi AbuRahma, MBCh. (Alexandria U.). Professor, Surgery–Charleston Division.
A. Adel-Sabzevari, M.D. (Med. Col. of Iran). Assistant Professor, Behavioral
Medicine and Psychiatry.
Ariel Agmon, Ph.D. (Stanford U.). Assistant Professor, Anatomy.
Abdulkader Al-Azzaz, M.B.B.S. (King Faisal U.–Saudi Arabia). Assistant Professor,
Radiology (Neuroradiology).
Stephen E. Alway, Ph.D. (McMaster U.–Canada). Director of Graduate Studies.
Associate Professor, Human Performance and Applied Exercise Science
(Exercise Physiology).
Robert Anderson, M.A. (NYU). Adjunct Assistant Professor, Community Medicine.
James G. Arbogast, M.D. (WVU). Professor, Family Medicine.
Mark A. Armeni, M.D. (Oh. St. U.). Assistant Professor, Otolaryngology.
Niti S. Armistead, M.D. (U. Md.). Assistant Professor, Medicine
(Comprehensive Medicine).
Charles Brian Arthurs, M.D. (WVU). Clinical Assistant Professor, Family Medicine.
Jeffrey V. Ashley, M.D. (WVU). Chief and Associate Professor, Family Medicine—
Charleston Division.
Miklos Auber, M.D. (Sемmelweis Med. U.). Associate Professor, Medicine
(Hematology/Oncology).
Julian E. Bailes, M.D. (La. St. U.). Chairperson and Professor, Neurosurgery.
Arpy A. Balian, M.D. (Aleppo U.). Associate Professor, Pediatrics.
Christine A. Banvard-Fox, M.D. (WVU). Adjunct Assistant Professor, Pediatrics
and Physician, University Health Service.
John J. Barbaccia, M.D. (SUNY–Buffalo). Associate Professor, Anesthesiology.
Elizabeth M. Barnett, Ph.D. (U.N.C.–Chapel Hill). Assistant Professor, Community
Medicine.
John B. Barnett, Ph.D. (U. Louisville). Chairperson and Professor, Microbiology
and Immunology.
Christine Baylis, Ph.D. (Leeds U.). Professor, Physiology.
Charles Lawrence Beall, M.D. (WVU). Clinical Assistant Professor, Medicine
(Hematology/Oncology).
Diana Scott Beattie, Ph.D. (U. Pitt.). Chairperson and Professor, Biochemistry.
Filitsa H. Bender, M.D. (Aristotelian U. of Thessaloniki, Greece). Associate
Professor, Medicine (Nephrology).
Andrew Joseph Berens, M.D. (WVU). Assistant Professor, Family Medicine.
William A. Beresford, Ph.D. (Oxford U.). Professor, Anatomy.
Jack M. Bergstein, M.D. (U. of Minn.). Professor, Surgery (Trauma).
Albert S. Berrebi, Ph.D. (U. Conn.). Associate Professor, Otolaryngology, Adjunct
Associate Professor, Anatomy.
Mary J. Berry, M.S.W. (WVU). Assistant Professor, Behavioral Medicine and
Psychiatry.
Anatole Besarab, M.D. (U. of Pa.). Section Chief and Professor, Medicine (Nephrology).
Christine A. Bezouska, M.D. (SUNY–Buffalo). Assistant Professor, Anesthesiology.
Veena K. Bhanot, M.B.B.S. (Gov. Med. Col., India). Associate Professor, Behavioral
Medicine and Psychiatry–Charleston Division.
Dale L. Birkle, Ph.D. (Med. Col. of Va.). Professor, Pharmacology and Toxicology and
Behavioral Medicine and Psychiatry.
Harry A. Bishop, M.D. (U. of Ca.). Adjunct Associate Professor, Radiology.
Russell Biundo, M.D. (Northeast U.–Mx.). Clinical Assistant Professor, Orthopedics.
J. David Blaha, M.D. (U. Mich.). Chairperson and Professor, Orthopedics.
C. David Blair, Ph.D. (Az. St. U.). Assistant Professor, Behavioral Medicine and
Psychiatry—Charleston Division.

Stephen M. Bloomfield, M.D. (R.W. Johnson Med. Sch.). Assistant Professor, Neurosurgery.

Frederick C. Blum, M.D. (WVU). Associate Professor, Emergency Medicine, Pediatrics, and Medicine (Comprehensive).

Matthew Boegehold, Ph.D. (U. of Az.). Professor, Physiology.

James P. Boland, M.D. (Jeff. Med. C.). Chief and Professor, Surgery—Charleston Division.

Dan Bonner, M.S. (WVU). Assistant Professor. Human Performance and Applied Exercise Science, (Exercise Physiology).

Kathleen P. Bors, M.D. (WVU). Adjunct Assistant Professor, Family Medicine—Charleston Division.

Edward M. Bottei, M.D. (U. of Chicago). Assistant Professor, Medicine—Charleston Division.

Brita K. Boyd, M.D. (Med. Col. of Pa.). Assistant Professor, Obstetrics/Gynecology.

Geoffrey E. Bradford, M.D. (Penn. St. U.). Assistant Professor, Ophthalmology and Pediatrics.

Andrew S. Bradlyn, Ph.D. (U. Miss.). Associate Professor, Behavioral Medicine and Psychiatry.

Leo R. Brancazio, M.D. (WVU). Associate Professor, Obstetrics/Gynecology.

James E. Brick, M.D. (WVU). Chairman and Professor, Medicine (Rheumatology).

John F. Brick, M.D. (WVU). Professor, and Chairperson Neurology and Associate Dean for Hospital Affairs.

Paula S. Briggs, M.S. (WVU). Clinical Assistant Professor, Human Performance and Applied Exercise Science (Exercise Physiology).

Rick Briggs, Ed.D. (WVU). Assistant Professor, Community Medicine.

Lynn M. Broadman, M.D. (Med. Col. Ohio). Professor, Anesthesiology and Pediatrics.

David K. Brown, Ph.D. (WVU). Associate Professor, Community Medicine, and Associate Director, Center on Aging.

Paul B. Brown, Ph.D. (U. Chicago). Professor, Physiology.

Timothy A. Brown, M.D. (WVU). Assistant Professor, Medicine (Dermatology).

James J. Burns, M.D. (Penn. St. U.). Associate Professor, Pediatrics.

William N. Burns, M.D. (Vanderbilt U.). Assistant Professor, Obstetrics/Gynecology—Charleston Division.

Matthew D. Brunner, M.D. (WVU). Assistant Professor, Pediatrics.

Nancy E. Brunner, M.D. (WVU). Assistant Professor, Pediatrics.

Randy W. Bryner, Ph.D. (WVU). Associate Professor, Human Performance and Applied Exercise Science, (Exercise Physiology).

Fred R. Butcher, Ph.D. (Oh. St. U.). Professor, Biochemistry, Associate VP for Health Sciences.

Walter R. Byrd, M.D. (U. of Texas). Associate Professor, Behavioral Medicine and Psychiatry.

Marilyn H. Byrne, M.S.W. (WVU). Associate Professor, Behavioral Medicine and Psychiatry.

James G. Cain, M.D. (U. of Pitt.). Assistant Professor, Anesthesiology.

Rosemarie Cannarella, M.D. (WVU). Associate Professor, Family Medicine.

Billy Ray Carlton, Ed.D. (U. Tenn.). Professor, Community Medicine.

Jeffery S. Carpenter, M.D. (WVU). Assistant Professor, Radiology.

Marshall J. Carper, M.D. (Med. Col. Va.). Professor Emeritus, Family Medicine—Charleston Division.

G. Anne Cather, M.D. (WVU). Associate Dean, Student Services. Associate Professor, Family Medicine.

Narayan D. Chandran, M.D. (WVU). Adjunct Instructor, Behavioral Medicine and Psychiatry.

William W. L. Chang, M.D. (Nat'l. Taiwan U.). Professor, Pathology.

Judie F. Charlton, M.D. (WVU). Professor, Ophthalmology.

Nyles Charon, Ph.D. (U. Minn.). Professor, Microbiology and Immunology.

Robert D. Chetlin, M.S. (WVU). Assistant Professor, Human Performance and Applied Exercise Science (Occupational Therapy).

Myra Lee Chiang, M.D. (U. East Philippines). Associate Professor and Acting Chairperson, Pediatrics—Charleston Division.

Elliott W. Chideckel, M.D. (U. Md.). Professor, Medicine (Metabolism-Endocrinology).

Ann S. Chinnis, M.D. (Eastern Va.). Associate Professor and Interim Chair, Emergency Medicine.

Lionel Chisholm, M.D. (U. of Toronto). Professor, Ophthalmology.

Gregory D. Clarke, M.D. (WVU). Assistant Professor, Medicine and Pediatrics—Charleston Division.

Paul L. Clausell, M.D. (WVU). Professor, Behavioral Medicine and Psychiatry.

Ronald L. Cleavenger, M.D. (WVU). Associate Professor, Family Medicine and Physician, University Health Service.

Holly A. Cloonan, Ph.D. (Purdue U.). Associate Professor, Pediatrics, Behavioral Medicine and Psychiatry—Charleston Division.

Robert C. Cochran, M.D. (Boston U.). Professor, Surgery—Charleston Division.

John G. Coletti, Ph.D. (U. of Wisc.). Assistant Professor, Radiology.

Melanie P. Collier, B.S. (U. of Penn.). Assistant Professor, Human Performance and Applied Exercise Science (Occupational Therapy).

John M. Connors, Ph.D. (U. Ill.). Associate Professor, Physiology.

Linda L. Cook, M.D. (Oh. St. U.). Assistant Professor, Pathology.

Michael Covelli, M.D. (WVU). Assistant Professor, Surgery—Charleston Division.

Thomas H. Covey, Jr., M.D. (Harvard U.). Professor, Surgery (Oncology).

Vernon R. Cox, M.S.W. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

Cathy A. Coyne, Ph.D. (John Hopkins U.). Assistant Professor, Community Medicine.

Charles Robert Craig, Ph.D. (U. Wisc.). Professor, Pharmacology and Toxicology.

Anne Frances Cronin, Ph.D. (U. of Fla.). Assistant Professor, Human Performance and Applied Exercise Science (Occupational Therapy).

Edward B. Crowell, Jr., M.D. (U. Chicago). Professor, Medicine (Hematology/Oncology).

Jose Luis Cruzzavala, M.D. (U. Autonoma de Tamaulipas Tampico, Tamaulipas). Associate Professor, Surgery (Thoracic).

Christopher F. Cuff, Ph.D. (Temple U.). Associate Professor and Vice Chairperson, Microbiology and Immunology.

James L. Culberson, Ph.D. (Tulane U.). Professor, Anatomy.

Michael E. Cunningham, M.D. (WVU). Associate Professor, Radiology (Diagnostic).

Kristina Curci-Ronayne, M.D. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

Sara L. Cuthill, M.D. (New York U.—SoM). Assistant Professor, Pediatrics (General).

William D. Cutlip, M.D. (WVU). Adjunct Associate Professor, Behavioral Medicine and Psychiatry.

Robert D'Alessandri, M.D. (N.Y. Med. Col.). Vice President for Health Sciences, Dean, School of Medicine, and Professor, Medicine (Comprehensive Medicine).

Rachel A. Dash, M.S.W. (U. Md.). Assistant Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Richard K. Dattola, M.D. (Temple U.). Associate Professor, Family Medicine.

Emilia L. Dauway, M.D. (U. of Ill.). Assistant Professor, Surgery (Oncology).

Duane Scott Davis, P.T., O.C.S. (WVU). Assistant Professor, Human Performance and Applied Exercise Science (Physical Therapy).

Mary Elizabeth Davis, Ph.D. (Mich. St. U.). Professor, Pharmacology and Toxicology.

David M. Deci, M.D. (U. of Fl.). Assistant Professor, Family Medicine.

Harakh V. Dedhia, M.D. (Bombay U., India). Professor, Anesthesiology and Medicine (Critical Care).

Vincent W. DeLaGarza, M.D. (U. of Md.). Associate Professor, Family Medicine.

John A. Deluca, M.D. (WVU). Assistant Professor of Surgery—Charleston Division.

Bharati S. Desai, M.B.S. (Baroda Med. C.). Associate Professor, Behavioral Medicine and Psychiatry.

Richard D. Dey, Ph.D. (Mich. St. U.). Professor and Interim Chair, Anatomy.

Anthony DiBartolomeo, M.D. (WVU). Section Chief and Professor of Medicine (Rheumatology) and Associate Dean for Clinical Affairs. Interim Chair of Pathology.

Thomas O. Dickey III, M.D. (WVU). Associate Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Daniel J. Dickman, M.D. (WVU). Program Director and Assistant Professor, Family Medicine—Charleston Division.

Charlotte L. Dillis, M.D. (Georgetown U.). Adjunct Assistant Professor, Radiology (Diagnostic).

Geri A. Dino, Ph.D. (Kans. St. U.). Research Assistant Professor, Community Medicine.

Yvonne G. Dowdy, M.D., (U. of Pa.). Assistant Professor, Pathology.

Edward J. Doyle, Jr., M.D. (George Wash. U.). Associate Professor, Occupational Medicine, Family Medicine, and Community Medicine.

Gregory A. Doyle, M.D. (Med. Col. Va.). Professor, Family Medicine.

Richard P. Driver, Jr., M.D. (U. of S.C.). Associate Professor, Anesthesiology.

Alan M. Ducatman, M.D. (Wayne St. U.). Professor, Occupational Medicine, Medicine (Comprehensive Medicine). Chairperson and Professor, Community Medicine.

Barbara S. Ducatman, M.D. (Albany Med. Col.). Professor, Pathology, and Director of Surgery/Cytopathology.

John P. Durham, Ph.D. (Oh. St. U.). Professor, Associate Chairperson, Biochemistry.

John M. Eckerd, M.D. (Bowman-Gray SOM). Associate Professor, Pediatrics—Charleston Division.

Peter R. Edelman, M.D. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Robert K. Edmundson, A.C.S.W. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

Peter F. Ehrlich, M.D. (U. of Toronto). Assistant Professor, Surgery (Pediatric).

Stanley Einzig, M.D. (U.C.L.A.). Professor and Section Chief, Pediatrics (Cardiology) and Professor Physiology.

Richard W. Eller, M.D. (Temple U.). Professor Emeritus, Anesthesiology.

Thomas A. Elliott, Ph.D. (U. of Ca. at San Diego). Professor, Microbiology.

Brian D. Ellis, M.D. (Temple U.). Associate Professor, Ophthalmology and Neurology.

Thomas E. Ellis, Ph.D. (Baylor U.). Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Solveig G. Ericson, M.D. (Boston U.). Assistant Professor, Medicine (Hematology/Oncology) and Microbiology and Immunology.

Conard F. Failing III, M.D. (Vanderbilt U.). Associate Professor, Medicine (Cardiology).

Elizabeth W. Farrell, MSW (Howard U.). Associate Professor, Behavioral Medicine and Psychiatry.

Norman D. Ferrari III, M.D. (WVU). Professor, Pediatrics (General), Associate Professor, Medicine (Comprehensive). Associate Dean and Interim Chair for Ambulatory Services.

Donald C. Fidler, M.D. (U.N.C.). Professor, Behavioral Medicine and Psychiatry.

Mitchell S. Finkel, M.D. (U. of Md.). Professor, Medicine (Cardiology) and Pathology.

Ryan D. Finkenbine, M.D. (Ind. U.). Assistant Professor, Behavioral Medicine and Psychiatry.

Melanie A. Fisher, M.D. (Penn. St. U.). Associate Professor, Medicine (Infectious Diseases).

Monica A. Fisher, Ph.D. (U. of Mich.). Assistant Professor, Community Medicine.

William W. Fleming, Ph.D. (Princeton U.). Professor Emeritus, Pharmacology and Toxicology.

Luis R. Flores, M.D., (Natl. Polytechnic Inst., Mx.). Assistant Professor, Pathology.

Daniel C. Flynn, Ph.D. (N.S. St. U.). Associate Professor, Microbiology and Immunology.

Steve Fogarty, M.D. (U. of Ia.). Instructor, Ophthalmology.

Cheryl A. France, M.D. (R. Woods Johnson). Associate Professor, Behavioral Medicine and Psychiatry.

John C. France, M.D. (U. of Pitt.). Assistant Professor, Orthopedics and Neurosurgery.

Gunter N. Franz, Ph.D. (U. Wash.). Associate Professor and Associate Chair Physiology.

Carol Diane Freas, M.D. (U. of Ky.). Assistant Professor, Behavioral Medicine and Psychiatry—Charleston Division.

John C. Frich, Jr., M.D. (George Wash. U.). Professor, Radiology (Radiation Therapy).

Mathis P. Frick, M.D. (U. Zurich). Chairperson and Professor, Radiology.

Joseph M. Fuscaldo, M.D. (WVU). Assistant Professor, Medicine—Charleston Division.

Michael E. Galloway, M.D. (Finch U.). Assistant Professor, Radiology.

Balram Gangaram, M.B.B.S. (Jamaica). Assistant Professor, Pediatrics.

Lisa Marie Gangarosa, M.D. (Duke U.). Assistant Professor, Medicine (Gastroenterology).

James David Garnett, M.D. (U. of Va.). Assistant Professor, Otolaryngology.

Scott Howell Garrett, Ph.D. (U. of S.D.). Research Assistant Professor, Pathology.

Ronald D. Gaskins, M.D. (U. of S.C.). Associate Professor, Medicine (Gastroenterology).

Karen Clark Gerbo, M.D. (Marshall U.). Associate Professor, Medicine (Comprehensive Medicine).

Robert Gerbo, M.D. (WVU). Assistant Professor of Community Medicine.

Laura F. Gibson, Ph.D. (WVU). Assistant Professor of Pediatrics and Microbiology and Immunology.

Mark Gibson, M.D. (Case Western Reserve). Chairperson and Professor, Obstetrics/Gynecology.

Kevin H. Gilson, Ed.D. (WVU). Associate Professor, Human Performance and Applied Exercise Science (Exercise Physiology).

Theodore A. Glance, M.A. (Marshall U.). Assistant Professor, Behavioral Medicine and Psychiatry.

Douglas D. Glover, M.D. (Emory U.). Professor, Obstetrics and Gynecology.

Elbert D. Glover, Ph.D. (Tex. Wom. U.). Professor, Behavioral Medicine and Psychiatry, Director, Tobacco Research Center, and Adjunct Professor, Family Medicine.

Jacqueline J. Glover, Ph.D. (Georgetown U.). Associate Professor, Medicine, Pediatrics, and Community Medicine.

Richard H. Goellner, O.D. (Oh. St. U.). Adjunct Instructor, Ophthalmology.

Ruth Turner Goins, Ph.D. (U. of Mass.). Assistant Professor, Community Medicine.

Raymond L. Goldstein, Ph.D. (Columbia U.). Professor, Community Medicine—Charleston Division.

Mark A. Goodman, M.D. (SUNY). Clinical Associate Professor, Orthopedics.

Robert L. Goodman, Ph.D. (U. Pitt.). Chairperson and Professor, Physiology.

Toni Goodykoontz, M.D. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

David M. Gordon, M.D. (Wayne St. U.). Assistant Professor, Surgery—Charleston Division.

Paul Gordon, Ph.D. (U. of Pitt.). Assistant Professor, Human Performance and Applied Exercise Science (Exercise Physiology), and Adjunct Assistant Professor, Community Medicine.

Yvette F. Gordon, M.D. (So. Ill. U.). Instructor, Obstetrics/Gynecology—Charleston Division.

Stephen G. Graber, Ph.D. (U. VT.). Associate Professor, Pharmacology and Toxicology.

Geoffrey M. Graeber, M.D. (SUNY). Professor, Surgery (Thoracic).

Janet E. Graeber, M.D. (SUNY). Associate Professor, Pediatrics (Neonatology).

David F. Graf, M.D. (Albany Med. C.). Associate Professor, Anesthesiology.

Christopher M. Grande, M.D. (SUNY Buffalo). Professor, Anesthesiology.

Holly R. Griffin, Pharm.D. (U. of N.C.—Chapel Hill). Assistant Professor, Behavioral Medicine and Psychiatry.

James P. Griffith, M.D. (WVU). Associate Professor, Medicine and Behavioral Medicine and Psychiatry, and Assistant Professor, Medicine—Charleston Division.

Karen M. Gross, M.D. (WVU). Associate Professor, Family Medicine.

Stephen R. Grubb, M.D. (Med. Col. Va.). Associate Professor, Medicine—Charleston Division.

Thomas A. Gruen, M.S. (Columbia U.). Adjunct Associate Professor, Orthopedics.

Michael R. Gunther, Ph.D., (Co. St. U.). Assistant Professor, Biochemistry.

Naresh C. Gupta, M.B.B.S. (All India Inst. of Med.). Professor, Radiology. Director of PET Center.

Robert A. Gustafson, M.D. (WVU). Professor, Surgery (Thoracic) and Pediatric.

Barbara J. Gutman, M.Ed. (U. Pitt.). Associate Professor, Medical Technology.

Laurie Gutmann, M.D. (WVU). Associate Professor, Director of EMG Lab Neurology.

Ludwig Gutmann, M.D. (Columbia U.). Professor, Neurology and Professor, Physiology.

Anne E. Elder Hackett, M.D. (Med. U. of S.C.). Associate Professor, Anesthesiology.

James K. Hackett, M.B.A. (Tulane U.). Associate V.P., Finance—HSC. Associate Dean, School of Medicine.

Kevin A. Halbritter, M.D. (WVU). Associate Professor, Medicine (Comprehensive). Vice President, Medical Affairs—WVUH.

William L. Hall II, M.D. (WVU). Clinical Associate Professor, Medicine (Dermatology).

Joel Halverson, M.A. (WVU). Research Instructor, Community Medicine.

Reyaz Ul Haque, M.B.B.S. (Aga Khan U.—Pakistan). Assistant Professor, Medicine (Cardiology).

Carole V. Harris, Ph.D. (U. Fla.). Professor, Behavioral Medicine and Psychiatry.

Charles L. Harris, Ph.D. (U. Ill.). Professor, Biochemistry.

Mahreen Hashmi, M.D. (Med. Col. of Oh.). Assistant Professor, Obstetrics/Gynecology.

Jennifer S. Haut, Ph.D. (U. N.D.). Associate Professor, Behavioral Medicine and Psychiatry.

Marc W. Haut, Ph.D. (U. N.D.). Associate Professor, Behavioral Medicine and Psychiatry and Neurology.

James Crum Helmkamp, Ph.D. (U. Pitt). Adjunct Associate Professor, Emergency Medicine.

James D. Helsley, M.D. (WVU). Associate Professor, Family Medicine and Physician, University Health Service.

Marta Henderson, M.S. (WVU). Associate Professor, Pathology (Medical Technology).

Hana M. Hermanova, M.D. (Charles U.–Prague). Director and Clinical Professor, Center of Aging. Clinical Professor, Community Medicine.

Elijah R. Heywood, M.D. (U. Ut.). Chief and Associate Professor, Obstetrics and Gynecology—Charleston Division.

Samuel G. Heywood, M.D. (Loma Linda U.). Instructor, Obstetrics/Gynecology—Charleston Division.

Stanley Hileman, Ph.D. (U. of Ky.). Assistant Professor, Physiology.

Ronald C. Hill, M.D. (WVU). Professor, Surgery (Thoracic).

Frank B. Hillgartner, Ph.D. (Mich. St. U.). Associate Professor, Biochemistry.

Rumy A. Hilloowala, Ph.D. (U. Ala.). Professor, Anatomy.

Robert D. Hoeldtke, M.D., Ph.D. (Cornell Med. Sch.). Section Chief and Professor, Medicine (Metabolism-Endocrinology).

William P. Hofmann, M.D. (Mexico). Instructor, Anesthesiology.

Mary Beth Hogan, M.D. (U. of Cinn.). Assistant Professor, Pediatrics (Allergy/Immunology).

Thoma Francis Hogan, M.D. (Med. Col. of Va.). Associate Professor, Medicine (Hematology/Oncology).

Jeffrey P. Hogg, M.D. (WVU). Associate Professor, Radiology, Neurology, and Neurosurgery.

James M. Holehouse, M.D. (Cetec U., Dom. Republic). Clinical Assistant Professor Obstetrics/Gynecology.

Jean Holter, Ed.D. (WVU). Professor and Program Director, Medical Technology.

Kimberly A. Horn, Ed.D. (WVU). Assistant Professor, Community Medicine.

Jo Ann Hornsby, M.D. (U. of S.C.). Assistant Professor, Medicine (Rheumatology).

William G. Hornsby, Ph.D. (La. St. U.). Associate Professor, Human Performance Applied Exercise Science (Exercise Physiology).

Vicki Williams Hott, M.D. (WVU). Assistant Professor, Radiology (Diagnostic).

Janie Linn Howsare, M.S.W. (WVU). Instructor, Behavioral Medicine and Psychiatry.

David F. Hubbard, M.D. (Marshall U.). Assistant Professor, Orthopedics.

Marybeth Hummel, M.D. (Ind. U.). Associate Professor, Pediatrics (Genetics).

Michael K. Hurst, M.D. (Marshall U.). Associate Professor, Otolaryngology.

Richard M. Iammarino, M.D. (Stitch Sch. Med.). Adjunct Professor, Pathology.

Syed Islam, Ph.D. (U. of Mich.). Research Director, Assistant Professor, Occupational Medicine. Assistant Professor, Community Medicine.

Jeffrey Burke Jackson, M.D. (WVU). Assistant Professor, Medicine (Dermatology).

Charles H.M. Jacques, M.D. (Mich. St. U.). Chairperson and Professor, Family Medicine.

Singanallur N. Jagannathan, Ph.D. (U. Bombay). Professor, Pathology.

Abnash C. Jain, M.B.B.S. (Govt. Med. C., Patiala). Section Chief and Professor, Medicine (Cardiology).

Maggie Jaynes, M.D. (WVU). Assistant Professor, Neurology and Pediatrics.

Binghua Jiang, Ph.D. (Miss. St. U.). Assistant Professor, Microbiology.

Molly John, M.D. (WVU). Assistant Professor, Medicine—Charleston Division.

Michael D. Johnson, Ph.D. (U. Mich.). Professor, Physiology.

William Michael Johnson, M.D. (WVU). Assistant Professor, Family Medicine—Charleston Division.

Robert E. Johnstone, M.D. (Oh. St. U.). Chairperson and Professor, Anesthesiology.

Eric T. Jones, M.D. (U. Mich.). Clinical Professor, Orthopedics.

Evan Alan Jones, M.D. (WVU). Section Chief and Associate Professor, Pediatrics.

James V. Jones, O.D. (Pa. Col. of Optometry). Instructor, Ophthalmology.

Gregory Juckett, M.D. (Penn. St. U.). Associate Professor, Family Medicine.

Abdullah M. Kalla, M.D. (Am. U. of Caribbean). Instructor, Anesthesiology.

Stanley J. Kandzari, M.D. (WVU). Professor, Urology.

Frank G. Keller, M.D. (U. of N.C.). Associate Professor and Section Chief, Pediatrics.

Ruth E. Kershner, Ed.D. (WVU). Visiting Assistant Professor, Community Medicine.

James W. Kessell, M.D. (Jefferson Med. Col.). Professor, Surgery—Charleston Division.

Amanda Kessler, B.S. (Col. of Mirericordia). Assistant Professor, Human Performance and Applied Exercise Science (Occupational Therapy).

Rashida A. Khakoo, M.B.B.S. (Makerere U.). Section Chief and Professor, Medicine (Infectious Diseases).

Asad Khan, M.D. (Allama-Iqbal—Pakistan). Assistant Professor, Behavioral Medicine and Psychiatry.

Atiya S. Khan, M.B.B.S. (Madras U.—India). Assistant Professor, Pediatrics and Neurology.

Raheel R. Khan, M.B.B.S. (Dow Medical College). Instructor, Pediatrics—Charleston Division.

Christine R. Kincaid, M.D. (WVU). Assistant Professor, Medicine (Comprehensive) and Pediatrics.

P. Klinkhachorn (WVU). Lecturer.

Patrick M. Knost, M.D. (Eastern Va.). Section Chief and Assistant Professor, Family Medicine—Charleston Division.

Timothy R. Koch, M.D. (U. of Chicago). Section Chief and Professor, Medicine (Gastroenterology).

Mary E. Koenn, MS (WVU). Assistant Professor, Medical Technology.

William Andrew Kofke, M.D. (U. Pitt.). Vice Chairman and Professor, Anesthesiology. Professor, Neurosurgery.

Kazunari J. M. Koike, Ph.D. (U. Tenn.). Professor and Director of Speech and Hearing, Otolaryngology.

Maria M. Kolar, M.D. (WVU). Associate Professor, Medicine (Comprehensive) and Community Medicine.

Martin J. Kommor, M.D. (U. of Louisville). Chief and Associate Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Gregory W. Konat, Ph.D. (Odense U.). Professor, Anatomy and Neurosurgery.

Jian-Qiang Kong, Ph.D. (Sum Yat Sen Med. U.). Research Assistant Professor, Pharmacology and Toxicology.

Rodney F. Kovach, M.D. (WVU). Associate Professor, Pathology and Medicine (Dermatology). Section Chief, Medicine (Dermatology).

Paul R. Kramer, Jr., M.D. (Med. Col. of Va.). Assistant Professor, Obstetrics/Gynecology.

Kenneth R. Kreisler, M.D. (U. of Nev.). Assistant Professor, Anesthesiology.

Debra Krummel, Ph.D. (Penn. St. U.). Assistant Professor, Community Medicine.

Elizabeth M. Kurczynski, M.D. (Case Western Reserve). Associate Professor, Pediatrics—Charleston Division.

Roberto Kusminsky, M.D. (U. of Buenos Aires—Argentina). Professor, Surgery—Charleston Division.

Thomas D. Lamkin, M.D. (Northwestern U.). Assistant Professor, Pediatrics (Hematology/Oncology).

Donald L. Lamm, M.D. (U. Ca.—Los Angeles). Chairperson and Professor, Urology.

Kenneth S. Landreth, Ph.D. (U. Wash.). Professor, Microbiology and Immunology, Pediatrics.

Kevin Larkin, Ph.D. (U. of Pitt.). Adjunct Associate Professor, Behavioral Medicine and Psychiatry.

David W. Lawrence, M.D. (WVU). Clinical Assistant Professor, Emergency Medicine.

Richard D. Layne, M.D. (WVU). Professor, Medicine (Comprehensive). Section Chief, Geriatric Program. Adjunct Professor, Behavioral Medicine and Psychiatry.

Ping Lee, Ph.D. (Duke U.). Professor, Physiology.

Susan K. Lemieux, Ph.D. (U.N.C.). Assistant Professor, Radiology.

James LePage, M.A. (U. of Houston). Assistant Professor, Behavioral Medicine and Psychiatry.

Nathan Lerfeld, M.D. (WVU). Instructor, Medicine (Internal Medicine).

David B. Leventer, M.D. (Columbia U.). Instructor, Ophthalmology.

Michael J. Lewis, M.D. (WVU). Associate V.P. for Health Sciences and Professor, Family Medicine—Charleston Division.

Monique J. Leys, M.D. (Katholieke U.—Belgium). Assistant Professor, Ophthalmology.

Xiaoming Li, Ph.D. (U. of Minn.). Professor, Pediatrics (Research).

David P. Libell, M.D. (Temple U.). Assistant Professor, Neurology.

John V. Linberg, M.D. (NYU). Chairperson and Professor, Ophthalmology.

John C. Linton, Ph.D. (Kent St. U.). Associate Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Mathew W. Lively, D.O. (WV Sch. of Osteo.). Assistant Professor, Medicine (Comprehensive) and Pediatrics.

Karen Sue Long, M.S. (WVU). Associate Professor, Medical Technology.

Gerardo Lopez, M.D. (WVU). Assistant Professor, Medicine (Cardiology).

Frank C. Lucente, M.D. (WVU). Associate Professor, Surgery—Charleston Division.

Jai Luo, M.D. (U. of Iowa). Assistant Professor, Anatomy.

Susan K. Lynch, M.D. (WVU). Adjunct Assistant Professor, Pediatrics (Neonatology).

Andrew H. Mace, Jr., M.D. (WVU). Associate Professor, Radiology (Diagnostic).

Gregory MacIsaac, M.D. (Dalhousie U.). Assistant Professor, Family Medicine.

Karen MacKay, M.D. (U. of Ut.). Associate Professor, Medicine (Nephrology).

Sandra M. Magnetti, Dr. PH. (U. of Tex.–SPH). Assistant Professor, Community Medicine, Behavioral Medicine and Psychiatry, and Medicine.

James E. Mahaney, Ph.D. (U. of Va.). Associate Professor, Biochemistry.

Vettivelu Maheswaran, M.D. (Kasturba Med. Col.–India). Adjunct Assistant Professor, Family Medicine.

Eugene Makela, Pharm.D. (Med. U. of S.C.). Adjunct Associate Professor, Behavioral Medicine and Psychiatry.

Amer Mukeideen Malas, M.D. (Lebanon). Assistant Professor, Medicine—Charleston Division.

Corrie A. Mancinelli, Ph.D. (WVU). Associate Professor, Human Performance and Applied Exercise Science (Physical Therapy).

Marybeth Mandich, Ph.D. (WVU). Chairperson and Professor, Human Performance and Applied Exercise Science (Physical Therapy). Associate Dean for Allied Health.

Shanthi Manivannan, Ph.D. (Grad. U. for Advanced Studies–Japan). Assistant Professor, Medicine (Comprehensive).

Anthony D. Marcucci, M.D. (WVU). Assistant Professor, Family Medicine.

Diana Market-Knight, M.S.W. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

Michael C. Maroon, D.O. (WV Sch. of Osteo. Med.). Assistant Professor, Family Medicine.

Christopher J. Martin, M.D. (Memorial U.–Newfoundland). Associate Residency Director and Assistant Professor of Community Medicine.

Diego R. Martin, M.D. (U. of Toronto). Section Chief and Associate Professor, Radiology (Abdominal Imaging).

James D. Martin, M.D. (Vanderbilt U.). Adjunct Professor, Neurology.

Shelda Anne Martin, M.D. (WVU). Assistant Professor, Medicine—Charleston Division.

Catherine Massey, Ph.D. (WVU). Research Instructor, Community Medicine

Peter Mathers, Ph.D. (Ca. Inst. of Tech.). Assistant Professor, Otolaryngology and Ophthalmology. Adjunct Assistant Professor, Biochemistry.

Michael G. Mawhinney, Ph.D. (WVU). Professor, Urology and Pharmacology and Toxicology.

Samuel M. Mazza, Ph.D. (U. of Pitt.). Associate Professor, Radiology.

Tandy J. McClung, Ed.D. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

Randy P. McCombie, Ph.D. (Loyola U. of Chicago). Chairman and Assistant Professor, Human Performance and Applied Exercise Science (Occupational Therapy).

Donald E. McDowell, M.D. (Temple U.). Professor, Surgery (Vascular).

David W. McFadden, M.D. (U. of Va.). Chairperson and Professor of Surgery.

Barbara L. McFarlin, M.S. (U. of Ill.). Associate Professor, Obstetrics/Gynecology.

James E. McJunkin, M.D. (WVU). Adjunct Professor, Pediatrics.

James M. Mears, M.D. (Marshall U.). Adjunct Assistant Professor, Family Medicine—Charleston Division.

Anurag Mehta, M.D. (WVU). Assistant Professor, Medicine (Cardiology).

Scott S. Meit, Psy.D. (Fla. Inst. of Tech.). Associate Professor, Family Medicine. Adjunct Assistant Professor, Behavioral Medicine and Psychiatry and Community Medicine.

Rhonda Mejeur, M.D. (Mich. St. U.). Assistant Professor, Family Medicine.

Janine D. Mendola, Ph.D. (Mass. Inst. of Tech.). Assistant Professor, Radiology (Neuroradiology).

Andrew Messaro, P.T., Ph.D. (U. of Ia). Assistant Professor, Human Performance and Applied Exercise Science (Physical Therapy).

Lanita Messenger, M.S.W. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

John D. Meyer, M.D. (Cornell U.). Assistant Professor, Occupational Medicine and Family Medicine, and Community Medicine.

Diana Middleton, B.S. (Western Mich. U.). Assistant Professor, Human Performance and Applied Exercise Science (Occupational Therapy).

Ronald J. Millecchia, Ph.D. (Rockefeller U.). Associate Professor, Physiology.

Betsy Anne Miller, M.S.N. (U. of Pa.). Instructor, Obstetrics/Gynecology.

Michael R. Miller, Ph.D. (Penn. St. U.). Professor, Biochemistry.

Kathleen M. Mimnagh, M.D. (SUNY). Assistant Professor, Medicine—Charleston Division.

James Mizes, Ph.D. (U. of Ak.). Associate Professor, Behavioral Medicine and Psychiatry.

Kathryn S. Moffett, M.D. (Penn. St.–Hershey). Adjunct Assistant Professor, Pediatrics (General).

Neil Mogge, Ph.D. (Geo. Peabody Col.). Associate Professor, Behavioral Medicine and Psychiatry.

Norman J. Montalto, D.O. (UOMHS). Associate Professor, Family Medicine—Charleston Division.

Emily Montgomery, M.D. (WVU). Assistant Professor, Family Medicine—Charleston Division.

Charles A. Moore, M.D. (WVU). Adjunct Assistant Professor, Ophthalmology.

Renee S. Moore, M.D. (WVU). Adjunct Associate Professor, Pediatrics (General).

David M. Morgan, M.D. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry. Physician, University Health Service.

Edwin J. Morgan, M.D. (U. Pitt.). Professor, Behavioral Medicine and Psychiatry, Medicine (Behavioral and Ambulatory Medicine). Medical Director, University Health Service.

Anthony P. Morise Jr., M.D. (U. Vt.). Professor, Medicine (Cardiology).

Alvin H. Moss, M.D. (U. Pa.). Professor, Medicine (Nephrology) and Community Medicine.

Peter Mucha, Jr., M.D. (Hahaemann). Professor, Surgery (Trauma). Director of Trauma Center.

Dianne Gail Muchant, M.D. (WVU). Associate Professor, Pediatrics.

Priscah Mujuru-Simoyi, M.S.N. (Boston U.). Research Assistant Professor, Community Medicine.

Charles J. Mullett, M.D. (WVU). Assistant Professor, Pediatrics (Critical Care).

Martha K. Mullett, M.D. (WVU). Professor, Pediatrics (Neonatology).

Viktorina Muratova, M.D. (Novosibirskiy St. Institute of Medicine—Russia). Research Instructor, Pediatrics.

James Murphy, M.S.W. (WVU). Associate Professor, Behavioral Medicine and Psychiatry. Director of Clinical Social Work.

Gordon F. Murray, M.D. (U. Mich.). Professor, Surgery. Section Chief of Thoracic Surgery.

Charlotte Nath, Ed.D. (WVU). Professor, Family Medicine.

Konrad C. Nau, M.D. (WVU). Associate Professor, Family Medicine.

William A. Neal, M.D. (WVU). Professor, Pediatrics.

Jeffrey L. Neely, M.D. (WVU). Professor, Medicine (Comprehensive).

Mark A. Newbrough, M.D. (WVU). Assistant Professor, Medicine—Charleston Division.

Thuan-Phuong Nguyen, M.D. (Georgetown U.). Assistant Professor, Radiology (Diagnostic).

Linda Nield, M.D. (Dartmouth). Adjunct Assistant Professor, Pediatrics.

Timothy L. Norman, Ph.D. (Purdue). Associate Professor, Orthopedics.

G. Robert Nugent, M.D. (U. Cinn.). Adjunct Professor, Neurosurgery.

Michelle Nuss, M.D. (WVU). Assistant Professor, Medicine (Comprehensive). Adjunct Instructor, Behavioral Medicine and Psychiatry.

James V. Odum, Ph.D. (U. of N.C.—Greensboro). Professor, Ophthalmology and Physiology.

Jann E. O'Rear, MSN (Case Western). Assistant Professor, Obstetrics/Gynecology.

Paul Richard Ogershok, M.D. (WVU). Assistant Professor, Medicine (Comprehensive).

Robert P. Pack, Ph.D. (U. of Ala.). Assistant Professor, Community Medicine.

Hugh C. Palmer, Jr., M.D. (U. of Va.). Assistant Professor, Medicine (Comprehensive Medicine).

Jan E. Palmer, M.D. (SUNY). Associate Professor, Family Medicine. Physician and Assistant Director for University Health Service.

John E. Parker, M.D. (Wayne St. U.). Professor, Medicine (Pulmonary and Critical Care).

Michael W. Parson, Ph.D. (U. of Tex.). Assistant Professor, Behavioral Medicine and Psychiatry.

James F. Pasinski, O.D. (Pa. Col. of Optometry). Adjunct Instructor, Ophthalmology.

Jyoti Patel, M.D. (MS U.–ndia). Clinical Assistant Professor, Family Medicine.

Debra J. Paulson, M.D. (U. Mn.). Associate Professor, Emergency Medicine.

Gauri Pawar, M.D. (U. Md.–New Jersey). Assistant Professor, Neurology (Rehabilitation/Stroke).

Kathaleen C. Perkins, M.D. (Albany Med. Col.). Professor, Pediatrics.

Jane Ann Pertko, P.T., G.C.S. (WVU). Assistant Professor, Human Performance and Applied Exercise Science (Physical Therapy).

Judy Jones Petersen, D. O. (WV Sch. of Osteopathic Med.). Assistant Professor, Family Medicine—Charleston Division.

John J. Petronis, M.S. (WVU). Professor and Assistant Chairperson, Human Performance and Applied Exercise Science (Physical Therapy).

Lakshmikumar Pillai, M.D. (WVU). Associate Professor, Surgery (Vascular).

Jeffrey J. Pilney, M.D. (Wright St. U.). Assistant Professor, Surgery (Trauma).

Carlin A. Pinkstaff, Ph.D. (Emory U.). Professor, Anatomy.

Mark J. Polak, M.D. (WVU). Associate Professor and Section Chief, Pediatrics (Neonatology).

Cecil R. Pollard, M.A. (WVU). Research Assistant Professor, Community Medicine.

Charles D. Ponte, Pharm.D. (U. Ut.). Professor, Family Medicine.

Robert S. Pope, Ph.D. (U. N. D.). Associate Professor, Anatomy.

Robert S. Pore, Ph.D. (UCLA). Professor, Microbiology and Immunology.

William R. Post, M.D. (Med. Col. Pa.). Associate Professor, Orthopedics.

Stephen P. Povoski, M.D. (SUNY–Syracuse). Assistant Professor, Surgery (Oncology).

Roxann L. Powers, M.D. (WVU). Professor, Medicine (Comprehensive Medicine).

Ganga Prabhakar, M.B.B.S. (India). Assistant Professor, Surgery.

John E. Prescott, M.D. (Georgetown U.). Professor, Emergency Medicine.

Myra Denise Priddy, M.D. (Marshall U.). Assistant Professor, Family Medicine—Charleston Division.

Muzaffar H. Qazilbash, M.B.B.S. (Pakistan). Assistant Professor, Medicine (Hematology/Oncology).

Sarah Rack, M.D. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry.

Kumaravel Rajakumar, M.B.B.S. (Madras Med. Col.). Assistant Professor, Pediatrics (General).

Hassan H. Ramadan, M.D. (Am. U., Beirut). Associate Professor, Otolaryngology and Pediatrics.

William D. Ramsey, M.D. (WVU). Associate Professor, Emergency Medicine.

Eric D. Rankin, Ph.D. (U. Chicago). Associate Professor, Behavioral Medicine and Psychiatry. Associate Director of Geriatrics.

Christopher H. Rassekh, M.D. (U. of Ia.). Associate Professor, Otolaryngology.

Raymond R. Raylman, Ph.D. (U. of Mich.). Assistant Professor, Director of Research, Radiology (PET).

Mark J. Reazor, Ph.D. (Johns Hopkins U.). Professor, Pharmacology and Toxicology.

William E. Reger, Ed.D. (WVU). Associate Professor, Community Medicine. Adjunct Associate Professor of Family Medicine.

Frank D. Reilly, Ph.D. (U. Cinn.). Professor, Anatomy.

Holly G. Resselar, Ph.D. (WVU). Adjunct Assistant Professor, Anatomy.

Jack E. Riggs, M.D. (U. Rochester). Professor, Neurology, Community Medicine, and Medicine (Comprehensive).

Cheryl M. Riley, M.A. (U. of Ark.). Assistant Professor, Behavioral Medicine and Psychiatry.

Susan K. Ritchie, M.P.H. (U. N.C.). Associate Professor, Pediatrics (Neonatology).

Joan T. Robison, Ph.D. (U. Ga.). Associate Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Robert W. Rogan, D.O. (WV Sch. of Osteopathic Med.). Assistant Professor, Behavioral Medicine and Psychiatry.

John S. Rogers II, M.D. (Geo. Wash. U.). Professor, Medicine (Hematology/Oncology).

William D. Rose, M.D. (WVU). Professor, Emergency Medicine.

David A. Rosen, M.D. (E. Va. Med. Sch.). Professor, Anesthesiology, and Pediatrics.

Kathleen Routier Rosen, M.D. (E. Va. Med. Sch.). Associate Professor, Anesthesiology.

James G. Rosencrance, M.D. (Marshall U.). Associate Professor and Chairperson, Medicine—Charleston Division.

Floyd K. Russell, Jr., Ed.D. (WVU). Assistant Professor, Community Medicine.

Jaiyoung Ryu, M.D. (Cath. Med. Col., Seoul). Associate Professor, Orthopedics.

Lisa M. Salati, Ph.D. (U. Minn.). Associate Professor, Biochemistry.

Adrienne K. Salm, Ph.D. (Mich. St. U.). Associate Professor, Anatomy.

Rosana Schafer, Ph.D. (Temple U.). Assistant Professor, Microbiology and Immunology.

Franklin G. Schiebel, M.D. (U. Mx.). Associate Professor, Surgery and Anesthesiology.

Rebecca Schmidt, D.O. (U. of Osteo Med.). Associate Professor of Medicine (Nephrology).

Stanley B. Schmidt, M.D. (U. Va.). Professor, Medicine (Cardiology).

Sydney S. Schochet, M.D. (Tulane U.). Professor, Pathology, Neurology, and Neurosurgery.

Judith S. Schreiman, M.D. (Mich. St. U.). Professor, Radiology.

Bernard G. Schreurs, Ph.D. (U. of Ia.). Associate Professor, Physiology.

Christian Schunn, M.D. (U. of Munich). Assistant Professor, Surgery (Vascular).

Terry L. Schwartz, M.D. (WVU). Professor, Ophthalmology, and Pediatrics.

Judith Arpaia Sedgeman, M.A. (Trinity Col.). Adjunct Assistant Professor, Community Medicine.

Donald G. Seibert, M.D. (George Wash. U.). Associate Professor, Medicine (Gastroenterology).

Peggy A. Seidman, M.D. (Med. Col. of Oh.). Associate Professor, Anesthesiology.

Joseph B. Selby, M.D. (WVU). Assistant Professor, Family Medicine and Adjunct Assistant Professor, Behavioral Medicine and Psychiatry.

Donald A. Sens, Ph.D. (U. of S. C.). Professor, Pathology.

Mary Ann Sens, M.D. (U. of S.C.). Professor, Pathology.

Pete Shaffron, Jr., Ed.D. (WVU). Professor, Community Medicine.

John M. Shammaa, M.D. (Emory U.). Associate Professor, Medicine (Gastroenterology).

Claude K. Shannon, M.D. (WVU). Adjunct Assistant Professor, Family Medicine.

Ajaz Ahmad Sheikh, M.D. (W. Indies). Assistant Professor, Pediatrics (Gastroenterology).

James M. Sheil, Ph.D. (U. Ky.). Associate Professor, Microbiology and Immunology.

Lauralee Sherwood, D.V.M. (Mich. St. U.). Professor, Physiology.

Linda P. Shields, M.D. (WVU). Assistant Professor, Family Medicine.

Andrew K. Shiemke, Ph.D. (Or. Grad. Ctr.). Associate Professor, Biochemistry.

William T. Shockcor, M.D. (U. Vt.). Associate Professor, Medicine (Comprehensive), Neurology, and Community Medicine.

Jeffrey S. Shultz, M.D. (WVU). Professor, Medicine.

James M. Shumway, Jr., Ph.D. (U. N.C.). Associate Dean for Education Programs. Professor, Medicine (Comprehensive) and Pediatrics.

Olivia Shuttleworth, M.S.W. (WVU). Instructor, Behavioral Medicine and Psychiatry.

Doyle R. Sickles, M.D. (WVU). Clinical Associate Professor, Orthopedics.

Rosanna D. Sikora, M.D. (WVU). Associate Professor, Emergency Medicine, Pediatrics, and Assistant Professor Medicine (Comprehensive).

Scott Silverstein, M.D. (U. of Pitt.). Clinical Instructor, Orthopedics.

George Millard Simmons, Jr., M.D. (U. Vt.). Professor, Obstetrics/Gynecology.

Kenneth J. Simon, Ed.D. (Columbia U.). Associate Professor, Community Medicine.

William Simons, Ph.D. (Carnegie-Mellon U.). Professor, Orthopedics.

Elizabeth H. Sinz, M.D. (Med. Col. of Va.). Assistant Professor, Anesthesiology and Neurosurgery.

Tina M. Slusher, M.D. (U. of Ky.). Assistant Professor, Pediatrics.

David J. Smith, Ph.D. (WVU). Professor, Pharmacology and Toxicology

Lee B. Smith, M.D. (Marshall U.). Associate Professor, Emergency Medicine.

Andrew S. Soisson, M.D. (Georgetown U.). Associate Professor, Obstetrics/
Gynecology.

George A. Spirou, Ph.D. (U. Fl.). Associate Professor, Otolaryngology and Physiology.

Clark L. Springs, M.D. (U. of S.C.). Assistant Professor, Ophthalmology.

John D. Stageberg, M.D. (U. of N.D.). Assistant Professor, Radiology
(Radiological Oncology).

Bonita F. Stanton, M.D. (Yale U.). Chairperson and Professor, Pediatrics.

Linda Stark, M.D. (WVU). Assistant Professor, Medicine (Comprehensive).

William T. Stauber, Ph.D. (Rutgers U.). Professor, Physiology, Neurology, Behavioral
Medicine and Psychiatry and Human Performance and Applied Exercise Science
(Physical Therapy).

Jeffrey Allan Stead, M.D. (Hahnemann Med. Col.). Associate Professor, Pathology.

James M. Stevenson, M.D. (WVU). Associate Dean, Continuing Medical Education
and Development. Chairperson and Professor, Behavioral Medicine and
Psychiatry.

Robert E. Stitzel, Ph.D. (U. Minn.). Professor and Interim Chair, Pharmacology and
Toxicology.

David A. Stoll, M.D. (U. Ia.). Adjunct Associate Professor, Orthopedics.

Patricia B. Stoltzfus, M.D. (Med. Col. of Va.). Assistant Professor, Radiology.

Jeannine S. Strobl, Ph.D. (George Wash. U.). Professor, Pharmacology and Toxicology.

Pamela M. Sullivan, M.D. (WVU). Associate Professor, Behavioral Medicine
and Psychiatry.

C. Rollyn Sullivan III, M.D. (WVU). Professor, Behavioral Medicine and Psychiatry and
Medicine (Comprehensive).

Calvin R. Sumner, M.D. (George Wash. U.). Associate Professor, Behavioral Medicine
and Psychiatry.

Anne Katrina Swisher, P.T.M.S. (U.N.C.–Greensboro). Assistant Professor, Human
Performance and Applied Exercise Science (Physical Therapy), and Medicine.

Michael Swerc, M.D. (Wash. U.–St. Louis). Assistant Professor, Surgery
(Cardiothoracic).

William F. Tarry, M.D. (Penn. St. U.). Associate Professor, Urology and Pediatrics.

Harry L. Taylor, M.D. (Med. Col. of Ga.). Section Chief and Associate Professor,
Pathology (Clinical).

Luis Teba, M.D. (U. Granada Med. Sch.). Professor, Medicine (Pulmonary)
and Anesthesiology.

Peter G. Teichman, M.D. (Mich. St. U.). Adjunct Assistant Professor, Family
Medicine.

Irene Tessaro, Dr. P.H. (U.N.C.–Chapel Hill). Assistant Professor,
Community Medicine.

John G. Thomas, Ph.D. (Syracuse U.). Professor, Pathology (Clinical; Director
of Clinical Micro Lab).

Krystal Thomas, P.T., M.S. (WVU). Adjunct Assistant Professor, Human Performance
and Applied Exercise Science (Physical Therapy).

Pamela Joan Todd, M.D. (Wright St. U.). Assistant Professor, Anesthesiology.

Roger C. Toffle, M.D. (U. Minn.). Professor, Obstetrics and Gynecology.

Naser Tolaymat, M.D. (Damascus U.). Associate Professor, Pediatrics—Charleston
Division.

Ascension M. Torres, M.D. (U. Cinn.). Associate Professor, Pediatrics—Charleston
Division.

Kimberly N. Treat, M.D. (Brown Gray Sch. of Med.). Clinical Assistant Professor,
Emergency Medicine.

Dianne W. Trumbull, M.D. (U. N.C.). Adjunct Associate Professor, Behavioral Medicine
and Psychiatry.

John Austin Turley, M.D. (Marshall U.). Assistant Professor, Family Medicine—
Charleston Division.

Loraine Tyre, M.D. (WVU). Adjunct Assistant Professor, Obstetrics and Gynecology
and Physician for University Health Services.

Irma H. Ullrich, M.D. (U. Minn.). Professor, Medicine (Metabolism-Endocrinology).

Ralph R. Utzman, B.S., M.P.H. (WVU). Assistant Professor, Human Performance and
Applied Exercise Science (Physical Therapy).

Harriet H. Valentin, M.D. (WVU). Assistant Professor, Pediatrics (General).

Robert A. Vance, M.D. (WVU). Associate Professor, Anesthesiology.

Knox Van Dyke, Ph.D. (St. Louis U.). Professor, Pharmacology and Toxicology.

John R. Vanin, M.D. (WVU). Professor, Behavioral Medicine and Psychiatry, Family Medicine; Adjunct Professor, Community Medicine; Physician for University Health Service.

Richard A. Vaughan, M.D. (WVU). Associate Professor, Surgery (Oncology) and Pediatrics.

Joseph L. Voelker, M.D. (Ind. U.). Associate Professor, Neurosurgery.

Carol Waggy, Ph.D. (WVU). Adjunct Assistant Professor, Human Performance and Applied Exercise Science (Physical Therapy).

Elizabeth R. Walker, Ph.D. (WVU). Associate Professor, Anatomy.

Yudong Wang, Ph.D. (Beijing Agr. U.). Research Assistant Professor, Biochemistry.

Matthew J. Watkins, DO (WV SoM). Adjunct Assistant Professor, Anesthesiology.

David L. Waxman, M.D. (U. Md.). Clinical Associate Professor, Orthopedics.

Martin Weisse, M.D. (U. of Tex.–Houston). Associate Professor, Pediatrics.

Sharon Louise Wenger, Ph.D. (U. of Pitt.). Professor, Pathology.

Stephen J. Wetmore, M.D. (U. Mich.). Chairperson and Professor, Otolaryngology, and Professor, Neurosurgery.

Steven D. Wheeler, M.Ed. (U. of Toronto). Assistant Professor, Human Performance and Applied Exercise Science (Occupational Therapy).

Charles R. Whiteman, M.D. (WVU). Associate Professor, Emergency Medicine.

Richard C. Wiggins, Ph.D. (Duke U.). Professor, Anatomy.

Lee A. Wiley, M.D. (U. of Pitt.). Assistant Professor, Ophthalmology.

Laura R. Wilhelm, Ph.D. (Oh. U.). Assistant Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Dorian J. Williams, M.D. (WVU). Associate Professor, Family Medicine and Director of Student Progress.

Janet M. Williams, M.D. (SUNY). Associate Professor, Emergency Medicine.

Christina Wilson, Ph.D. (Wayne St. U.). Assistant Professor, Behavioral Medicine and Psychiatry.

Nevin W. Wilson, M.D. (U. Nev.). Associate Professor, Pediatrics (Allergy).

Mary J. Wimmer, Ph.D. (U.N.C.). Professor, Biochemistry.

David J. Withersty, M.D. (WVU). Associate Medical Director and Professor, Behavioral Medicine and Psychiatry—Weston.

William F. Wonderlin, Ph.D. (Johns Hopkins U.). Associate Professor, Pharmacology and Toxicology.

Glen A. Wright, M.D. (WVU). Assistant Professor, Behavioral Medicine and Psychiatry—Charleston Division.

Tamer M. Yalcinkaya, M.D. (Istanbul U.). Associate Professor, Obstetrics and Gynecology—Charleston Division.

Ming Yang, M.D. (Shandong Med. U.). Research Instructor, Radiology.

Van Yasek, Ph.D. (U. of Pitt.). Research Instructor, Family Medicine.

Adolph J. Yates Jr., M.D. (Johns Hopkins U.). Associate Professor, Orthopedics.

Rachel A. Yeater, Ph.D. (WVU). Professor, Human Performance and Applied Exercise Science (Exercise Physiology).

David B. Yelton, Ph.D. (U. Mass.). Professor of Microbiology and Immunology.

Stanley D. Yokota, Ph.D. (U. Ca.—Riverside). Associate Professor, Physiology.

Don C. Yost, M.S.W. (U. of Neb.). Assistant Professor, Behavioral Medicine and Psychiatry.
John A. Young, M.D. (WVU). Associate Professor, Behavioral Medicine and Psychiatry, Neurology.
Fereydoun Zangeneh, M.D. (U. of Tehran). Professor, Pediatrics—Charleston Division.
Nick L. Zervos, M.D. (WVU). Clinical Assistant Professor, Orthopedics.

School of Nursing

* Regular graduate faculty

Associate graduate faculty

+ Clinical track appointment

Alan P. Agins, Ph.D. (U. of RI), Adjunct Associate Professor.
Nancy Alfred, D.S.N., R.N. (U. of AL). Associate Professor and Associate Dean for Undergraduate Academic Affairs.
Tasha Casto Anderson, M.S.N., R.N., F.N.P.-C. (WVU). Adjunct Instructor.
Julie A. Armistead, R.N.C.-W.H.N.P. (U. of Pa.). Adjunct Clinical Instructor.
*Laurie Badzek, J.D., M.S.N., R.N. (WVU). Associate Professor.
Barbara Banonis, M.S.N., R.N. (WVU). Adjunct Instructor.
Jacquelyn P. Bauer, M.S.N., N.N.P. (WVU). Adjunct Instructor.
Maribeth Beckner, M.S.N., R.N., C.N.O.R. (WVU). Adjunct Instructor.
Eleanor Berg, M.S.N., F.N.P., P.N.P. (WVU). Adjunct Instructor.
M. Sharon Boni, D.N.S., R.N. (The Catholic U. of America). Adjunct Associate Professor.
Marjorie Bower, Ed.D., R.N. (WVU). Visiting Assistant Professor.
Angel Brown, C.N.M., F.N.P. (Marshall U.). Adjunct Instructor.
Margaret C. Bruns, R.N.C.-F.N.P. (U. of Va.). Adjunct Instructor.
Karen Campbell, M.S.N., R.N. (Vanderbilt U.). Adjunct Instructor.
Kathy Carroll, M.S.N., R.N.C., F.N.P. (WVU). Adjunct Instructor.
Ann Cleveland, Ed.D., R.N. (WVU). Assistant Professor.
Heather S. Cline, M.S.N., R.N., P.N.P. (WVU). Adjunct Instructor-Research.
Susan Collins, M.S.N., R.N. (Duke U.). Adjunct Instructor.
Sandra Cotton, M.S., C.R.N.P. (U. of Md.). *Assistant Professor and Director of Faculty Practice Plan.
Theresa Cowan, M.N., R.N.C.S. (WVU). Coordinator, GSC/WVU Joint Program. Assistant Professor.
Joan Danner, M.S., R.N., C.S. (U. of Md.). Adjunct Instructor.
Brenda Daugherty, M.S.N., R.N., N.N.P. (WVU). Adjunct Instructor.
Daniel J. DeFeo, M.S.N., R.N., C.C.R.N., C.F.N.P. (WVU). *Assistant Professor.
*Pamela Deiriggi, Ph.D., R.N., C.P.N.P. (U. Tex.). Associate Professor.
Patricia A. Diehl, M.S.N., R.N. (WVU). Associate Professor Emerita.
*Rose Ann DiMaria, Ph.D., R.N., C.N.S.N. (NYU). Assistant Professor—Charleston Division.
Cindy J. Drenning, M.S.N., R.N., C.F.N.P. (WVU). *Instructor.
Lynne Durback Morris, B.S.N., R.N., C.N.P.I., M.B.A. (WV Grad. Col.), Adjunct Instructor.
Karen Lee Fahey, M.S.N., C.N.M., C.F.N.P. (WVU). Adjunct Instructor.
Kay E. Finkel, M.S.N., R.N. (U. of Pitt.). Adjunct Instructor.
Imogene P. Foster, Ed.D., R.N. (WVU). Associate Professor, Coordinator of Rural Health Nursing Education.
Cyndy Gibbons, M.S.N., R.N., C.C.R.N. (WVU). *Instructor.
Nancy I. Greenstreet, M.S.N., R.N. (WVU). Adjunct Instructor.
Suzanne Gross, Ph.D., R.N. (U. of Tex.) Assistant Professor, Assistant Dean for Student Services.
Denice Hamula, M.S.N., R.N. (WVU). Adjunct Instructor.
Patricia Harman, M.S.N., R.N., C.N.M. (U. of Minn.). Adjunct Instructor.
Debra Harr, Ed.D., R.N. (WVU). Associate Professor.
Patty Hermosilla, M.S.N., R.N., R.N.P.-C. (WVU). Visiting Instructor.
Diana Higginbotham, M.S., R.N. (WVU). Adjunct Instructor.
Stephen Hines, Ph.D. (Purdue U.). Adjunct Assistant Professor.
Jean Hoff, M.P.H., R.N. (U.Pitt.). Associate Professor Emerita.
Patricia Horstman, M.S.N., R.N. (WVU). Adjunct Instructor.

Michele M. Hubbard, M.S.N., R.N. (WVU) Adjunct Instructor.
 Laure Hughes, M.S.N., R.N. (WVU). Lecturer—Charleston Division.
 Elizabeth Hupp, M.S.N., R.N. (WVU). Adjunct Instructor.
 Jodie Jackson, M.P.H., R.N. (Johns Hopkins U.). Adjunct Instructor.
 *Michelle Janney, Ph.D., R.N. (U. of Toledo). Associate Dean for HSC
 Clinical Services.
 Lorita Jenab, Ed.D., R.N. (Columbia U.). Dean Emerita.
 Dorothy M. Johnson, Ed.D., R.N. (WVU). Assistant Professor.
 Patricia Johnston, Ed.D., R.N. (WVU). Adjunct Assistant Professor.
 Linda Joyce Justice, M.S.N., R.N. (WVU). Adjunct Instructor.
 Judith D. Klingensmith, M.S.N., RN (U. of Pitt.). Adjunct Assistant Professor.
 Nancy A. Koontz, M.S.N., R.N. (U. of Md.). Associate Professor Emerita.
 Michelle L. Kopf, M.S., R.N. (Georgetown U.). Adjunct Instructor.
 Barbara J. Koster, M.S.N., R.N. (WVU). Adjunct Instructor.
 Barbara Kupchak, Ph.D., R.N. (U. Tex.). Associate Professor.
 Debra Lanham, M.S.N., R.N.C., F.N.P. (WVU). Lecturer.
 *June Larrabee, Ph.D., R.N. (U. of Tenn.). Associate Professor.
 *Nan Leslie, Ph.D., R.N. (U. Pitt.), Associate Professor.
 Patricia Joyce Maramba, M.S.N., R.N. (WVU). Visiting Instructor.
 Kathleen Marsland, M.S., R.N. (U. Colo.). Assistant Professor.
 *E. Jane Martin, Ph.D., R.N., F.A.A.N., C.S. (U. Pitt.). Professor and Dean.
 Diana McCarty, M.S.N., R.N. (WVU). Visiting Assistant Professor.
 Susan H. McCrone, Ph.D. R.N. (U. of Ut.). Associate Professor and Chair,
 Department of Health Promotion/Risk Reduction.
 Barbara L. McFarlin, M.S., B.S.N., R.N. (U. of Ill.). Adjunct Associate Professor.
 M. Anna McGilliard, M.S.N., R.N. (U. of Tenn.). Adjunct Instructor.
 Gaynelle McKinney, M.S.N.Ed., R.N., F.A.A.N. (Ind. U.). Professor Emerita.
 Anne Slaughter Miller, R.N. (National U.). Adjunct Instructor.
 Carol Parsons Miller, M.S.N., R.N. (WVU). Adjunct Instructor.
 Julia Z. Miller, M.S.N., R.N. (WVU). Adjunct Instructor.
 Valerie Ann Evans Minor, M.S.N., R.N. (WVU). Adjunct Assistant Professor.
 *Marsha Mitchell, Ed.D., R.N. (WVU). Assistant Professor—Charleston Division.
 Lois Morgan, B.S.N., R.N. (U of Wash.). Adjunct Instructor.
 Diane Morris, M.S.N., R.N., C.-F.N.P. (WVU). Adjunct Instructor.
 Charlotte Nath, Ed.D., R.N., C.D.E. (WVU). Adjunct Associate Professor.
 Alvita Nathaniel, M.S.N., R.N.C., F.N.P. (WVU). Lecturer—Charleston Division.
 Cynthia A. Neely, M.S., R.N.. (WVU). Adjunct Instructor.
 Mary Nemeth-Pyles, M.S.N., R.N.C., F.N.P. (WVU). Lecturer—Charleston Division.
 Susan Newfield, Ph.D., R.N., C.S. (U. Tex.), Visiting Assistant Professor.
 Barbara Jean Nightengale, M.S.N., R.N. (WVU). Adjunct Instructor.
 Catherine V. Nolan, Ed.D. (WVU). Lecturer and RWJ Project Coordinator.
 Barbara Nunley, M.S.N., R.N., C.S. (Ohio St. U.). Lecturer, Charleston Division.
 Lois O'Kelley, M.S.N., R.N. (Wayne St. U.). Associate Professor Emerita.
 Terina Oman, M.S.N., R.N. (SUNY, Binghamton, NY). +Instructor.
 *C.Lynne Ostrow, Ed.D., R.N. (WVU). Associate Professor, Chair of Department of
 Health Restoration.
 Maria F. Patrick, M.S.N., R.N. (WVU). Visiting Instructor.
 Mary Ellen Pauley, M.S.N., R.N.C., F.N.P. (WVU). Lecturer, Charleston Division.
 *Cynthia Persily, Ph.D., R.N. (U. of Penn.) Associate Professor, Associate Dean
 for Academic Affairs, WVUSON—Southern Region. Chair—Charleston Division.
 Drema Pierson, M.S.N., R.N., C.N.A. (Bellarmine Coll.). Adjunct Instructor.
 Judith Polak, M.S.N., R.N., N.N.P. (U. of Fla.). Adjunct Instructor.
 Radine A. Powley, M.S.N., R.N., C.P.N.P. (WVU). Adjunct Instructor.
 Jennifer Presley, M.S.N., R.N. (WVU). Visiting Instructor.
 Joan Propst, Ed.D., R.N.-C.S. (WVU). Adjunct Assistant Professor.
 Jacqueline Riley, M.N., R.N. (U. of Fla.). Associate Professor.
 Susan Ritchie, M.P.H., R.N. (U.N.C.). Adjunct Instructor.
 Bonita Roche, M.S.N., R.N.-C., C.R.N.P. (WVU). Adjunct Instructor.
 Sherry L. Rockwell, M.S.N., R.N., C.C.R.N., E.M.T.-P. (U. of Pitt.). Adjunct Instructor.
 Kari Sand-Jecklin, Ed.D., R.N. (WVU). Assistant Professor.
 Joanne Seasholtz, Ph.D., R.N. (U. of Pitt.). Adjunct Assistant Professor.
 Elisabeth N. Shelton, D.N.S., R.N., (Widener U.). Assistant Professor.

Jane A. Shrewsbury, M.N.Ed., R.N. (U. of Pitt.). Associate Professor Emerita.
 Debra J. Shupienis, M.S.N., R.N., C.S. (WVU). Lecturer, Charleston Division.
 *Patricia Simoni, Ed.D., R.N. (WVU). Associate Professor, Chair of Department of Health Systems.
 Jackie Sions, M.S.N., R.N., C.N.O.R. (WVU). Adjunct Instructor.
 *Mary Jane Smith, Ph.D., R.N. (NYU). Professor and Associate Dean for Graduate Academic Affairs.
 MaryKaye Staggers, M.S.N., R.N. (Wayne St.). Visiting Instructor and Nursing Coordinator, Potomac State College.
 Jacqueline Stemple, Ed.D., R.N. (WVU). Associate Professor.
 Fredona Stenger, M.S.N., R.N. (Boston U.). Associate Professor.
 Martha Summers, M.S.N., R.N., C.F.N..P (WVU), SN Assistant Professor.
 Delia Tachado, M.S.N. (Boston U.), Adjunct Instructor.
 Sally M. Taylor, Ed.D., R.N. (WVU), Adjunct Assistant Professor.
 Blitz E. Turner, M.S.N., R.N., C.-F.N..P (WVU), Adjunct Instructor.
 Gail O'Malley Van Voorhes, M.S.N., R.N., C.-N.N.P. (WVU). Visiting Instructor.
 William Wadsworth, Ph.D. (Catholic U.). Adjunct Assistant Professor.
 Brenda E. Walker, M.S.N., R.N., F.N.P. (WVU). Adjunct Instructor.
 *Janet Wang, Ph.D., R.N., F.A.A.N. (U. Pitt.). Professor.
 Susan J. Watkins, M.S.N., RN (WVU), Adjunct Instructor.
 Joanne E. Watson, M.S.N., (U.of Va.). Lecturer.
 Mary Ellen Williams, M.N., R.N., C.A.N..P (U. of Wash.). Adjunct Instructor.
 Alison Witte, M.S., R.N.C.S. (U. Md.). Visiting Instructor/Glenville.
 D. Alex Yohn, M.A. (WVU). Adjunct Instructor.
 Jerry H. Yoho, M.S.N., R.N., C.N.A.A. (WVU). Adjunct Instructor.
 Alice A. Ziomek, M.S.N., R.N., N.N.P. (WVU). Adjunct Instructor.

School of Pharmacy

Marie A. Abate, Pharm.D. (U. Mich.). Professor, Clinical Pharmacy. Director, Drug Information Center. Associate Chair for Research and Curriculum, Clinical Pharmacy.
 William J. Addicks, Ph.D. (U. Mich.). Adjunct Assistant Professor.
 Bernard F. Albertini, B.S. (ONU). Adjunct Instructor.
 C. Bruce Alderman, B.S. (WVU). Adjunct Instructor.
 Joseph Alderson III, B.S. (WVU). Adjunct Instructor.
 Ambarish Ambegaonkar, Ph.D. (WVU). Adjunct Assistant Professor, Pharmaceutical Systems and Policy.
 Mayur Amonkar, Ph.D. (WVU). Assistant Professor, Pharmaceutical Systems and Policy.
 Deborah Anderson, B.S. (WVU). Adjunct Instructor.
 Joe Anderson, B.S. (WVU). Adjunct Instructor.
 Scot A. Anderson, B.S. (WVU). Adjunct Instructor.
 James M. Antonini, Ph.D. (WVU). Adjunct Assistant Professor.
 David Athey, B.S. (WVU). Adjunct Instructor.
 Wayne Atkinson, B.S. (WVU). Adjunct Assistant Professor.
 Debora J. Bail, B.S. (WVU). Adjunct Instructor.
 Susan Bailey, B.S. (WVU). Adjunct Instructor.
 J. R. Baker, Pharm.D. (WVU). Adjunct Instructor.
 Kim Baller, B.S. (WVU). Adjunct Instructor.
 Michael A. Barnes, B.S. (U.N.C.–Chapel Hill). Adjunct Instructor.
 Joseph E. Bartolo, B.S. (WVU). Adjunct Instructor.
 Harvey P. Barton, B.S. (WVU). Adjunct Instructor.
 James D. Bartsch, B.S. (U. Wisc.). Adjunct Assistant Professor.
 Dawn Bell, Pharm.D. (U. Fla.). Assistant Professor, Clinical Pharmacy.
 Gary Belue, B.S. (WVU). Adjunct Instructor.
 J. J. Bernabei, B.S. (WVU). Adjunct Instructor.
 Pavan Bhat, Ph.D. (U. Iowa). Adjunct Assistant Professor.
 Herbert Blankenship, B.S. (WVU). Adjunct Instructor.
 Virginia R. Blosser, B.S. (WVU). Adjunct Instructor.
 Brian Bond, Pharm.D. (WVU). Adjunct Instructor.
 Robert E. Borders, Pharm.D. (U. Neb.). Adjunct Instructor.
 Bruce Bottini, Pharm.D. (U. Missouri–KC). Adjunct Professor.
 Jerry A. Bovenizer, B.S. (WVU). Adjunct Instructor.
 David. G. Bowyer, B.S. (WVU). Adjunct Instructor.

J. Scott Boyd, B.S. (WVU). Adjunct Instructor.
 Amy Brabbin, B.S. (WVU). Adjunct Instructor.
 Robert Bradbury, B.S. (Ohio St. U.). Adjunct Instructor.
 Calvin C. Brister, Ph.D. (U. Miss.). Professor, Biopharmacy.
 David W. Brosh, B.S. (WVU). Adjunct Instructor.
 Matthew Brown, B.S. (WVU). Adjunct Instructor.
 Scott Brown, B.S. (WVU). Adjunct Instructor.
 Kay M. Brummond, Ph.D. (Penn. St.). Adjunct Associate Professor.
 Marcia L. Buck, Pharm.D. (Purdue). Adjunct Assistant Professor.
 Marvin L. Buckley, B.S. (WVU). Adjunct Instructor.
 Larry Calemine, B.S. (WVU). Adjunct Instructor.
 Patrick S. Callery, Ph.D. (U. Ca.). Professor and Chair, Department of Basic
 Pharmaceutical Sciences. Assistant Dean for Research and Graduate Programs.
 Sherri Camp, B.S. (WVU). Adjunct Instructor.
 Jeff Carter, B.S. (WVU). Adjunct Instructor.
 Diane S. Casdorff, B.S. (WVU). Assistant Professor, Department of Clinical
 Pharmacy. Assistant Director, Drug Information Center.
 Terri Casdorff, B.S. (WVU). Adjunct Instructor.
 Sharon S. Castle, Pharm.D. (U. Ky.). Adjunct Assistant Professor.
 Vincent Castranova, Ph.D. (WVU). Adjunct Professor.
 Anne C. Chambers, Pharm.D. (U. Ky.). Adjunct Instructor.
 Judie F. Charlton, M.D. (WVU). Adjunct Associate Professor.
 Fei Chen, Ph.D. (Beijing Medical U. P.R. China). Adjunct Assistant Professor.
 Lisa Chesebro, Pharm.D. (WVU). Adjunct Instructor.
 Thomas S. Clark, M.D. (WVU). Adjunct Professor.
 Roger S. Cole, B.S. (WVU). Adjunct Instructor.
 James K. Coleman, B.S. (WVU). Adjunct Instructor.
 Matthew Comer, B.S. (WVU). Adjunct Instructor.
 Monica Compton, B.S. (WVU). Adjunct Instructor.
 Jane Condee, B.S. (WVU). Adjunct Instructor.
 Robert Coram, B.S. (WVU). Adjunct Instructor.
 John E. Corkrean, B.S. (WVU). Adjunct Instructor.
 Susan Cosner, B.S. (WVU). Adjunct Instructor.
 James Crable, B.S. (U. Md.). Adjunct Instructor.
 Kathryn P. Craddock, B.S. (Ohio St. U.). Adjunct Instructor.
 D. Stephen Crawford, B.S. (WVU). Adjunct Instructor.
 Melanie Cupp, Pharm.D. (WVU). Adjunct Clinical and Research Assistant Professor,
 Clinical Pharmacy. Drug Information Specialist.
 Shelly Curtis, Pharm.D. (MCV/VCU). Adjunct Instructor.
 Kelly Davis, M.S. (Ohio St. U.). Adjunct Instructor.
 Mary E. Davis, Ph.D. (Mich. St. U.). Professor, Pharmacology.
 Mary O. Davis, B.S. (WVU). Adjunct Instructor.
 Teresa Knight Davis, B.S. (WVU). Adjunct Instructor.
 David Day, M.S. (WVU). Adjunct Assistant Professor, Pharmaceutical Systems and
 Policy.
 Eugene Demchuk, Ph.D. (Moscow St. Instit.). Adjunct Associate Professor.
 Jacalyn H. Denemark, B.S. (WVU). Adjunct Instructor.
 C. Michael Dickey, B.S. (WVU). Adjunct Instructor.
 Charles R. Downs, Pharm.D. (U. Md.). Adjunct Assistant Professor.
 David Drennen, B.S. (WVU). Adjunct Instructor.
 Frank Dundee, B.S. (ONU). Adjunct Instructor.
 David Dunson, B.S. (U. Miss.). Adjunct Instructor.
 Teresa Dunsworth, Pharm.D. (U. Tex.). Clinical Associate Professor, Clinical
 Pharmacy.
 John W. Early III, Pharm.D. (Georgia). Adjunct Assistant Professor.
 M. Todd Echard, B.S. (WVU). Adjunct Instructor.
 David P. Elliott, Pharm.D. (U. Tex.). Associate Professor, Clinical Pharmacy/Director
 of Clinical Programs—Charleston Division.
 Samia Farah, B.S. (Alexandria U. Egypt). Adjunct Instructor.
 Kenneth Ferretti, Pharm.D. (Duquesne). Adjunct Assistant Professor.
 Cassandra Ford, B.S. (WVU). Adjunct Instructor.
 Keith Foster, B.S. (WVU). Adjunct Instructor.
 Robert L. Foster Jr., B.S. (Auburn). Adjunct Instructor.

Linda Frederick, B.S. (WVU). Adjunct Instructor.
 Jack E. Fruth, B.S. (Ohio St. U.). Adjunct Instructor.
 A. Randon Fusco, B.S. (WVU). Adjunct Instructor.
 Carl Gainor, J.D. (U. Pitt). Adjunct Professor.
 Nicole Galenas, Pharm.D. (WVU). Adjunct Instructor.
 Brian Gallagher, B.S., J.D. (WVU). Adjunct Assistant Professor, Pharmaceutical Systems and Policy.
 Peter Gannett, Ph.D. (U. Wisc.). Professor, Medicinal Chemistry. Associate Chair, Department of Basic Pharmaceutical Sciences.
 Kevin Garlow, B.S. (WVU). Adjunct Instructor.
 Ken Gianettino, B.S. (WVU). Adjunct Instructor.
 Gwendolyn S. Gill, B.S. (WVU). Adjunct Instructor.
 Douglas D. Glover, M.D. (Emory). Adjunct Professor, Clinical Pharmacy, Pharmaceutical Systems and Policy.
 Jackie Glover, Ph.D. (Georgetown). Adjunct Associate Professor.
 C. Rodney Godwin, B.S. (WVU). Adjunct Instructor.
 Vicki Green, B.S. (WVU). Adjunct Instructor.
 Holly R. Griffin, Pharm.D. (U.N.C.–Chapel Hill). Adjunct Assistant Professor.
 Joseph F. Griffith, B.S. (WVU). Adjunct Instructor.
 Ric Griffith, B.S. (U. Cinn.). Adjunct Instructor.
 Robert K. Griffith, Ph.D. (Ohio St. U.). Associate Professor, Medicinal Chemistry.
 Elizabeth Grove, B.S. (WVU). Adjunct Instructor.
 Patricia Grunwald, Pharm.D. (U. Cinn.). Adjunct Instructor.
 Roy Gryskevich, B.S. (WVU). Adjunct Instructor.
 Danny J. Hackett, B.S. (WVU). Adjunct Instructor.
 Teresa Haines, B.S. (WVU). Adjunct Instructor.
 Robert Haining, Ph.D. (Wash. St.). Assistant Professor.
 Keith Hall, B.S. (WVU). Adjunct Instructor.
 Spencer Hamilton, B.S. (WVU). Adjunct Instructor.
 Brenton R. Harman, B.S. (WVU). Adjunct Instructor.
 Harold D. Harrison, B.S. (U. Md.). Adjunct Instructor.
 Jeffrey Hartley, B.S. (WVU). Adjunct Instructor.
 Robert Haynes, B.S. (WVU). Adjunct Instructor.
 Charles Heal, B.S. (PCPS). Adjunct Instructor.
 Robin L. Henderson, Pharm.D. (WVU). Adjunct Assistant Professor.
 Jeffrey A. Hess, B.S. (WVU). Adjunct Assistant Professor.
 Robert D. Hickman, B.S. (WVU). Adjunct Instructor.
 Gerald M. Higa, Pharm.D. (U. Pacific). Associate Professor, Clinical Pharmacy and Oncology.
 Carla Hively, B.S. (WVU). Adjunct Instructor.
 Robert Hockenberry, B.S. (WVU). Adjunct Instructor.
 Brian M. Hodges, Pharm.D. (WVU). Assistant Professor, Clinical Pharmacy.
 Carol A. Hoffman, B.S. (WVU). Adjunct Instructor.
 Martin Hoffman, B.S. (WVU). Adjunct Instructor.
 Carlton Hoskinson, B.S. (WVU). Adjunct Instructor.
 Stephen A. Howard, Ph.D. (U. Mich.). Adjunct Professor, Pharmaceutics.
 Kevin Hryanski, B.S. (U. Pitt.). Adjunct Instructor.
 Stanford Huber, M.D. (U. Md.). Adjunct Instructor.
 Robert Hultman, B.S. (N.D. St.). Adjunct Instructor.
 Kent C. Hunter, B.S. (WVU). Adjunct Instructor.
 Arthur I. Jackowitz, Pharm.D. (PCPS). Professor, Department of Clinical Pharmacy. Chairperson, Department of Clinical Pharmacy.
 Barbara Jackson, B.S. (WVU). Research Instructor.
 Janice Jackson, B.S. (WVU). Adjunct Instructor.
 Kathryn Jacobs, B.S. (Northeastern). Adjunct Instructor.
 Richard L. Jarvis, B.S. (WVU). Adjunct Instructor.
 A. Martin Johnston, B.S. (S.O.S.U.). Adjunct Instructor.
 Mitchell Johnston, B.S. (WVU). Adjunct Instructor.
 Patricia Johnston, B.S. (WVU). Adjunct Instructor.
 Ron Jones, B.S. (WVU). Adjunct Instructor.
 Sara D. Jones, B.S. (Ohio St. U.). Adjunct Instructor.
 Kenneth G. Jozefczyk, M.S. (Ohio St. U.). Adjunct and Clinical Associate Professor. Clinical Pharmacy and Pharmaceutical Systems and Policy. Director,

Department of Pharmaceutical Services, WVU Hospitals Inc.
 Steven C. Judy, B.S. (WVU). Adjunct Instructor, Adjunct Assistant Professor.
 Pharmaceutical Systems and Policy.
 Jennifer Justice, Pharm.D. (U. Ky.). Clinical Assistant Professor, Clinical
 Pharmacy—Charleston Division.
 Sandra Justice, B.S. (WVU). Adjunct Instructor.
 Timothy Kefauver, B.S. (U. Md.). Adjunct Instructor.
 David M. Kelly, Pharm.D. (Mercer). Adjunct Assistant Professor.
 Scott Kendrick, B.S. (WVU). Adjunct Instructor.
 Charles Kibler, B.S. (WVU). Adjunct Instructor, Pharmacy Administration.
 Hannah J. Kim, Pharm.D. (Drake). Adjunct Instructor.
 Ray Kinder, B.S. (WVU). Adjunct Instructor.
 Fred L. King, Ph.D. (U. Va.). Adjunct Associate Professor.
 Beth Faris Koenig, Pharm.D. (Ohio St. U.). Adjunct Instructor.
 Timothy Koenig, Pharm.D. (U. Neb.). Adjunct Instructor.
 Choudari V. Kommineni, Ph.D. (U. Neb.). Adjunct Assistant Professor.
 Michael Kovack Jr., B.S. (WVU). Adjunct Instructor.
 Steve Krinke, B.S. (Ohio St. U.). Adjunct Instructor.
 David Lalka, Ph.D. (SUNY). Professor, Pharmacokinetics.
 John Lamantia, B.S. (WVU). Adjunct Instructor.
 Christopher Lamer, Pharm.D. (U. Pitt). Adjunct Instructor.
 Kevin Landers, Pharm.D. (WVU). Adjunct Instructor.
 Denise Landreth, B.S. (WVU). Adjunct Instructor.
 Mary Kay Lane, B.S. (WVU). Adjunct Instructor.
 Dustin R. Leach, Pharm.D. (U. Missouri—KC). Adjunct Instructor.
 Ric Leatherman, B.S. (WVU). Adjunct Instructor.
 Dennis R. Lewis, B.S. (WVU). Adjunct Instructor.
 James J.K. Lim, Ph.D. (U.N.C.—Chapel Hill). Professor Emeritus.
 Charles Lindstrom, B.S. (Butler). Adjunct Instructor.
 Chris Lockard, B.S. (WVU). Adjunct Instructor.
 Richard Losh, B.S. (WVU). Adjunct Instructor.
 B. Daniel Lucas Jr., Pharm.D. (Campbell). Adjunct Assistant Professor, Clinical
 Pharmacy—Charleston Division.
 Kristy Lucas, Pharm.D. (Campbell). Clinical Assistant Professor, Clinical Pharmacy—
 Charleston Division.
 Joseph K.H. Ma, Ph.D. (Duquesne). Professor, Pharmaceutical Chemistry.
 S. Suresh Madhavan, M.B.A., Ph.D. (Purdue). Chairperson, Associate Professor,
 Pharmaceutical Systems and Policy.
 Eugene H. Makela, Pharm.D. (M.U.S.C.). Associate Professor, Department of Clinical
 Pharmacy. Associate Professor, Behavioral Medicine and Psychiatry.
 Carl J. Malanga, Ph.D. (Fordham). Professor, Biopharmacy. Associate Dean,
 Academic Affairs.
 Paul R. Manzuk, B.S. (WVU). Adjunct Instructor.
 Benny May, B.S. (WVU). Adjunct Instructor.
 Carol Ann May, Pharm.D. (MCV/VCU). Adjunct Instructor.
 Eladio Mazon, B.S. (WVU). Adjunct Instructor.
 Samuel Mazza, Ph.D. (U. Pitt). Adjunct Associate Professor.
 Craig McCammon, Pharm.D. (U. Missouri). Adjunct Instructor.
 Gary McCoy, B.S. (WVU). Adjunct Instructor.
 Pamela W. McDevitt, Pharm.D. (U. Ky.). Adjunct Assistant Professor.
 Andrew McDonald, B.S. (WVU). Adjunct Instructor.
 William McFarland, B.S. (U. Tex.). Adjunct Instructor.
 Joseph C. McGlothlin, B.S. (WVU). Adjunct Instructor.
 Robert W. McGory, Pharm.D. (Minn.). Adjunct Assistant Professor.
 Kathy R. McIntire, B.S. (WVU). Adjunct Instructor.
 Daniel J. McKeever, B.S. (WVU). Adjunct Instructor.
 Nicole McNamee, Pharm.D. (U. Ky.). Adjunct Instructor.
 Thomas E. Menighan, B.S. (WVU). Adjunct Assistant Professor.
 Ronald W. Meredith, B.S. (WVU). Adjunct Instructor.
 John L. Metheny, B.S. (WVU). Adjunct Instructor.
 David W. Miller, B.S. (WVU). Adjunct Instructor.
 John E. Miller, B.S. (WVU). Adjunct Instructor.
 Kathy Miller, B.S. (WVU). Adjunct Instructor.

Kimberly A. Miller, B.S. (WVU). Adjunct Instructor.
 Maria Minor, B.S. (WVU). Adjunct Instructor.
 Jan Mitchell, B.S. (WVU). Adjunct Instructor.
 Lisa J. Moherman, Pharm.D. (MCV/VCU). Adjunct Assistant Professor.
 Terri L. Moore, B.S. (WVU). Adjunct Instructor.
 Angela Morgan, Pharm.D. (WVU). Adjunct Instructor.
 Sherry Morgan, B.S. (WVU). Adjunct Instructor.
 John I. Mourat, B.S. (WVU). Adjunct Instructor.
 Kenneth Muha, B.S. (U. Ga.). Adjunct Instructor.
 Loretta Mullens, B.S. (WVU). Adjunct Instructor.
 John Nally, B.S. (WVU). Adjunct Instructor.
 David Nau, Ph.D. (U. Fla.). Assistant Professor, Pharmaceutical Systems and Policy.
 Steve Neal, M.B.A. (Wheeling). Adjunct Assistant Professor.
 Matthew Nelson, Pharm.D. (M.U.S.C.). Adjunct Instructor.
 Carlton Norris, B.S. (WVU). Adjunct Instructor.
 Frank D. O'Connell, Ph.D. (Purdue). Professor Emeritus, Pharmacognosy.
 Michael G. O'Neil, Pharm.D. (U.N.C.—Chapel Hill). Adjunct Assistant Professor.
 Chuck Okel, B.S. (WVU). Adjunct Instructor.
 Thomas J. Olness, B.S. (N.D. St.). Adjunct Instructor.
 Lora R. Ometz, B.S. (WVU). Adjunct Instructor.
 Janna G. Ott, B.S. (Purdue). Adjunct Assistant Professor.
 Richard Ottmar, B.S. (Idaho St. U.). Adjunct Instructor.
 Michael J. Painter, M.S. (U. Charleston). Adjunct Instructor.
 Catherine Patriarca, B.S. (WVU). Adjunct Instructor.
 Mary Frances Patton, B.S. (WVU). Adjunct Instructor.
 Thomas G. Patton, B.S. (WVU). Adjunct Instructor.
 Doug Paxton, B.S. (WVU). Adjunct Instructor.
 Janet Perdieu, B.S. (WVU). Adjunct Instructor.
 Michael F. Perdue, B.S. (WVU). Adjunct Instructor.
 Zachariah T. Phillips, B.S. (WVU). Adjunct Instructor.
 Lori L. Plummer, B.S. (WVU). Adjunct Instructor.
 Robert Podbesek, B.S. (WVU). Adjunct Instructor.
 Charles D. Ponte, Pharm.D. (U. Utah). Professor, Clinical Pharmacy and Family Medicine.
 Mark D. Povroznik, Pharm.D. (WVU). Adjunct Assistant Professor.
 Terrence S. Prettyman, B.S. (WVU). Adjunct Assistant Professor.
 Larry H. Prunty, B.S. (WVU). Adjunct Instructor.
 Gregg L. Puffenberger, B.S. (WVU). Adjunct Assistant Professor.
 Milan Puskar, B.A. (Youngstown St. U.). Adjunct Professor.
 Guilin Qiao, Ph.D. (S. China Agricultural U.). Adjunct Associate Professor.
 Jeffrey M. Quedado, Pharm.D. (NOVA). Adjunct Assistant Professor.
 Brenda Rappold, B.S. (WVU). Adjunct Instructor.
 Karen L. Reed, B.S. (WVU). Adjunct Instructor.
 Ken Reeves, B.S. (WVU). Adjunct Instructor.
 Barbara Regan, B.S. (Alderson-Broadus). Adjunct Instructor.
 Daniel M. Rider, B.S. (WVU). Adjunct Instructor.
 W. Clarke Ridgway, B.S. (WVU). Clinical Assistant Professor. Assistant Dean for Student Services.
 Terry Riggins, B.S. (WVU). Adjunct Instructor.
 David Riley, Ed.D. (U. Ga.). Professor Emeritus.
 Renee Riley, B.S. (WVU). Adjunct Instructor.
 Dianna L. Ringer, B.S. (WVU). Adjunct Instructor.
 Paul Ritchie, B.S. (WVU). Adjunct Instructor.
 Tim Robbins, B.S. (WVU). Adjunct Instructor.
 Thomas L. Robinette, B.S. (WVU). Adjunct Assistant Professor.
 Jenni Robinson, B.S. (WVU). Adjunct Instructor.
 John Robinson, B.S. (WVU). Adjunct Instructor.
 Daniel A. Rock Jr., B.S. (WVU). Adjunct Instructor.
 Yongyut Rojanasakul, Ph.D. (U. Wisc.). Professor, Pharmaceuticals.
 David R. Rollins, Pharm.D. (Mercer). Adjunct Assistant Professor.
 Judy Rose, Pharm.D. (U. Ill.). Adjunct Instructor.

Leslie Rose, B.S. (WVU). Adjunct Instructor.
 Sidney A. Rosenbluth, Ph.D. (U. Tex.). Professor, Pharmaceutical Systems and Policy.
 Gregory Rosencrance, M.D. (Marshall U.). Clinical Assistant Professor.
 Michael Ross, B.S. (U. Ga.). Adjunct Instructor.
 Erin Rudge, B.S. (WVU). Adjunct Instructor.
 Julie Rumbach, M.B.A. (WV Wesleyan). Adjunct Instructor.
 Susan H. Sargut, B.S. (U. R.I.). Adjunct Instructor.
 Randolph M. Sarles, B.S. (WVU). Adjunct Instructor.
 James W. Scarborough, B.S. (WVU). Adjunct Instructor.
 Elizabeth J. Scharman, Pharm.D. (MCV/VCU). Associate Professor, Clinical Pharmacy—Charleston Division. Director, West Virginia Poison Center.
 Shelley Schliesser, Pharm.D. (Toledo). Adjunct Assistant Professor.
 Mary Beth Schloss, Pharm.D. (N.D. St.). Adjunct Assistant Professor.
 Jennifer Schumacher, Pharm.D. (WVU). Adjunct Instructor.
 Virginia (Ginger) G. Scott, Ph.D. (U. Minn.). Associate Professor, Pharmaceutical Systems and Policy. Director for Continuing Education.
 Nicholas J. Scrivo, B.S. (WVU). Adjunct Instructor.
 Frank Sebroski, B.S. (WVU). Adjunct Instructor.
 Roger Shallis, B.S. (WVU). Adjunct Instructor.
 Paul Sheets, B.S. (WVU). Adjunct Instructor.
 Xianglin Shi, Ph.D. (WVU). Adjunct Professor.
 Richard E. Shields, Pharm.D. (U. Ill.). Adjunct Assistant Professor.
 James M. Shumway Jr., Ph.D. (U.N.C.Chapel Hill). Adjunct Professor, Clinical Pharmacy.
 Paul Siegel, Ph.D. (Tulane). Adjunct Associate Professor.
 Douglas Slain, Pharm.D. (Duquesne). Assistant Professor, Clinical Pharmacy.
 Stephen A. Small, M.S. (WVU). Adjunct Assistant Professor, Pharmaceutical Systems and Policy. Director, Rational Drug Therapy Program.
 Barbara D. Smith, B.S. (WVU). Adjunct Instructor.
 Bernie Smith, MBA (Ohio U.). Adjunct Instructor.
 Dorothy L. Smith, Pharm.D. (U. Cinn.). Adjunct Associate Professor.
 Jeanette C. Smith, B.S. (WVU). Adjunct Instructor.
 Ronald L. Smith, Ph.D. (Iowa). Adjunct Professor.
 Debbie Sommer, B.S. (WVU). Adjunct Instructor.
 Alice Sowada, B.S. (Wyoming). Adjunct Instructor.
 George R. Spratto, Ph.D. (U. Minn.). Professor, Pharmacology. Dean.
 Mary Stamatakis, Pharm.D. (Ohio St. U.). Associate Professor, Clinical Pharmacy.
 Robert Stanton, Pharm.D. (U. Ky.). Adjunct Assistant Professor.
 Jay Starcher, B.S. (WVU). Adjunct Instructor.
 Charles H. Steg Jr., B.S. (U. Md.). Adjunct Assistant Professor.
 Jerry Stewart, B.S. (WVU). Adjunct Instructor.
 John Stock, B.S. (WVU). Adjunct Instructor.
 Alan Stolzenberg, Ph.D. (Stanford). Adjunct Associate Professor.
 Angela Stone, B.S. (WVU). Adjunct Instructor.
 Connie Stone, B.S. (WVU). Adjunct Instructor.
 Paula J. Meyer Stout, Ph.D. (WVU). Associate Professor, Pharmaceutics.
 Thomas Stout, OD, FFAO (Philadelphia Col. of Optometry). Adjunct Assistant Professor.
 S. Renee Straight, B.S. (WVU). Adjunct Instructor.
 Parnaz F. Strobl, Pharm.D. (WVU). Adjunct Assistant Professor.
 Eric Strother, B.S. (WVU). Adjunct Instructor.
 Charles Stump, B.S. (WVU). Adjunct Instructor.
 Tanya Sutton, B.S. (WVU). Adjunct Instructor.
 Grazyna Szklarz, Ph.D. (Clarkson U.). Assistant Professor, Department of Basic Pharmaceutical Sciences.
 Robert H. Taylor, B.S. (WVU). Adjunct Instructor.
 Christine Teague, Pharm.D. (MCV/VCU). Adjunct Associate Professor.
 Brad E. Thomas, B.S. (WVU). Adjunct Instructor.
 Jodie Thomas, B.S. (WVU). Adjunct Instructor.
 David Toledo-Valasquez, Ph.D. (U. Wisc.). Adjunct Assistant Professor.
 William T. Toler, Pharm.D. (U. Ky.). Adjunct Instructor.
 Stephen E. Toompas, B.S. (WVU). Adjunct Instructor.

Timothy Tracy, Ph.D. (Purdue). Associate Professor, Clinical Pharmacology.
Randy R. Trumbule, B.S. (WVU). Adjunct Instructor.
Richard Vagliente, M.D. (WVU). Adjunct Instructor.
Val Vallyathan, Ph.D. (M.S. U. Baroda, India). Adjunct Professor.
Cynthia VanDyke, B.S. (WVU). Adjunct Instructor.
Christopher Vaught, B.S. (WVU). Adjunct Instructor.
Mitch Vickers, B.S. (WVU). Adjunct Instructor.
Christine Waugh, B.S. (WVU). Adjunct Instructor.
Patricia A. Weaver, B.S. (Duquesne). Adjunct Instructor.
David R. Weekley, B.S. (WVU). Adjunct Instructor.
Laura P. Welch, Pharm.D. (U. Ky.). Adjunct Assistant Professor.
Linda Westbrook, Pharm.D. (Duquesne U.). Adjunct Instructor.
Tara Whetsel, Pharm.D. (WVU). Clinical Assistant Professor, Clinical Pharmacy.
Jack Whitley, Pharm.D. (Mercer). Adjunct Instructor.
Carol T. Woodward, Pharm.D. (U.N.C.–Chapel Hill). Adjunct Assistant Professor.
Tamera J. Wright, B.S. (WVU). Adjunct Instructor.
Frank G. Yann, B.S. (WVU). Adjunct Instructor.
Sally U. Yasuda, Pharm.D. (PCPS). Adjunct Assistant Professor.
David R. Yoakum Jr., B.S. (WVU). Adjunct Instructor.
Todd Zubick, B.S. (WVU). Adjunct Instructor.