School of Medicine

Degrees Offered

- M.D., Doctor of Medicine
- M.D./Ph.D., Joint Doctor of Medicine and Doctor of Philosophy
- Ph.D. in Biochemistry and Molecular Biology
- Ph.D. in Cancer Cell Biology
- Ph.D. in Cellular and Integrative Physiology
- M.S. in Clinical and Translational Science
- Ph.D. in Immunology and Microbial Pathogenesis
- B.S. in Immunology and Medical Microbiology
- Ph.D. in Neuroscience
- M.H.S. in Pathologists’ Assistant
- B.S., M.S., Ph.D., Exercise Physiology
- B.S. in Medical Laboratory Science
- M.O.T., Master of Occupational Therapy
- D.P.T., Doctor of Physical Therapy
- Ph.D., Pharmaceutical and Pharmacological Sciences
- M.D./M.P.H., Doctor of Medicine and Master of Public Health
- M.S., Biomedical Sciences

Introduction

The West Virginia University School of Medicine is a part of the Robert C. Byrd Health Sciences Center, a comprehensive academic health system with three campuses in the state, a network of affiliated hospitals and practice plans, and a mission of education, research, clinical care, and service to the state. On the main Morgantown campus, students have access to a full range of research and clinical facilities, including a new laboratory building and a wide range of advanced research centers. West Virginia University Hospitals includes sophisticated medical technology, including magnetic resonance imagery, lithotripsy, and laser surgery; the campus includes a large and busy tertiary hospital, a trauma center, children’s hospital, cancer center, a psychiatric hospital, primary care and specialty clinics, a rehabilitation hospital and many other patient care facilities.

Students in the M.D. program complete two years of their professional education on the Morgantown campus. In the third and fourth year of their medical education, they may complete clinical clerkships on the Morgantown, Charleston or WVU-East (Martinsburg) campuses.

The Department of Human Performance and Applied Exercise Sciences incorporates exercise physiology, physical therapy, and occupational therapy. These programs offer graduate degrees at the master's and doctoral (M.S., PhD) level as well as professional degrees (MOT, DPT).

Biomedical sciences graduate programs (in collaboration with School of Pharmacy) offer training in seven areas: biochemistry and molecular biology; cancer cell biology; cellular and integrative physiology; exercise physiology; immunology and microbial pathogenesis; neuroscience; and pharmaceutical and pharmacological sciences. Biomedical sciences graduate students take a common core curriculum the first year and match with a faculty mentor and self-select into their specialty areas in year two.

These School of Medicine graduate and professional programs complement programs in the other health professions schools (dentistry, nursing, public health, and pharmacy).

ADMINISTRATION

DEAN

- Clay Marsh - M.D. (West Virginia University)

VICE DEAN-MEDICAL EDUCATION/ACADEMIC AFFAIRS

- Norman D. Ferrari III - M.D. (West Virginia University)

VICE DEAN-CLINICAL SERVICES/CMO WVU HEALTHCARE

- Judie Charlton - M.D. (West Virginia University)

ASSOCIATE DEANS

- Scott A. Cottrell - Ed.D. (West Virginia University)
  Student Services & Curriculum
Degree Designation Learning Goals

Bachelor of Science (BS) in Exercise Physiology

Goal 1: The Bachelor of Science in Exercise Physiology program is designed to meet the knowledge, skill, and aptitude (KSA) requirements for students to be eligible to take the American College of Sports Medicine Health and Fitness National Examination and the National Strength and Conditioning Association Certified Strength and Conditioning Specialist Examination. The KSA areas for these examinations include:

- Exercise Physiology and Related Exercise Science
- Pathophysiology and Risk Factors
- Health Appraisal, Fitness, and Clinical Exercise Testing
- Electrocardiography and Diagnostic Techniques
- Patient Management and Medications
- Exercise Prescription and Programming
- Nutrition and Weight Management
- Human Behavior and Counseling
- Safety, Injury Prevention, and Emergency Procedures
• Program Administration, Quality Assurance, and Outcome Assessment
• Cardiovascular Pathophysiology and Risk Factors

Goal 2: Students will have a background in basic science and exercise physiology as well as courses in nutrition, athletic training, personal fitness, first aid and emergency care, and business.

Goal 3: Students will experience training in basic and applied sciences that will allow them to continue in a career path towards treatment or interventions and identification and dissemination of new knowledge that will contribute to exercise-induced health care and disease treatment.

Goal 4: Students will experience intensive, hands-on training in laboratories that use state-of-the-art equipment and develop the ability to step into hospitals, clinics, or other settings and be able to treat patients who have various clinically important health problems that can be evaluated and treated with exercise.

Goal 5: Students will complete a 200-hour internship training in the senior year for additional clinical or research experience under the guidance and supervision of trained personnel. Students will develop attitudes, habits, skills, and abilities that will enable them to grow and develop as clinical exercise physiologists and/or that will set the framework for additional clinical or research training in the biomedical sciences.

Goal 6: Students will be prepared for graduate or professional school in areas such as exercise physiology, physical therapy, dentistry, pharmacy, occupational therapy, or medicine.

Bachelor of Science (BS) in Immunology and Medical Microbiology

Goal 1: The Bachelor of Science in Immunology and Medical Microbiology program is designed to provide students with a thorough understanding of the basis of the mammalian immune system and how it functions to protect the body from infectious agents in conjunction with an in-depth knowledge and understanding of pathogens.

Goal 2: Students will be prepared to serve as professionals that are knowledgeable about the immune system of humans and other mammals, how the immune system functions, and the consequences of its malfunction on the health of the host.

Goal 3: Students’ knowledge of the immune system will be fully integrated with an understanding of the diversity of microorganisms that cause disease in humans and other mammals and mechanisms of disease pathogenesis.

Goal 4: Graduates of the program will provide a well-trained healthcare and research workforce who have the education and experience to work in a variety of occupations that require knowledge in immunology, medical microbiology, and related disciplines.

Goal 5: Graduates will possess the laboratory skills and knowledge needed to assess the functional status of the immune system and to safely cultivate and identify microorganisms that cause disease in mammals.

Goal 6: Graduates will be well-suited for various educational or career options. They will be qualified to work as immunologists or microbiologists in many diverse fields – including biotechnology research and industry, the pharmaceutical industry, the medical industry, the public health arena, academia, and various state and federal government agencies.

Goal 7: Graduates will be well prepared for advanced graduate or professional school education and training including public health, medicine, dentistry, and pharmacy.

Bachelor of Science (BS) in Medical Laboratory Science

Goal 1: The Bachelor of Science in Medical Laboratory Science program is designed to prepare graduates for their roles as members of a healthcare team in an environment of rapidly changing technology.

Goal 2: Graduates of the program will be prepared to serve as medical laboratory scientists for medical (both urban and rural) laboratories, public health laboratories, research laboratories, and industry.

Goal 3: Clinical Laboratory Scientist graduates will be able to analyze, develop, and perform medical laboratory tests and evaluate results on blood and bodily fluids.

Goal 4: Clinical Laboratory Scientist graduates will be prepared to sit for the Medical Laboratory Scientist (MLS) certification exam administered by the American Society for Clinical Pathology (ASCP).

Goal 5: Histotechnologist graduates will be prepared to conduct routine and specialized procedures on tissue and autopsy specimens for diagnosis.

Goal 6: Histotechnologist graduates will be prepared to sit for the Histotechnologist (HTL) certification exam administered by the American Society for Clinical Pathology (ASCP).

Goal 7: Graduates of the program will be prepared to assume teaching and supervisory positions in medical laboratory science.

Goal 8: Graduates of the program will be prepared for graduate work in the medical sciences.