

# School of Medicine

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## Degrees Offered

- B.A. in Human Performance and Health
- B.S. in Exercise Physiology
- B.S. in Health Informatics and Information Management
- B.S. in Immunology and Medical Microbiology
- B.S. in Medical Laboratory Science

## 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.

The undergraduate degrees in the School of Medicine are in the Professional Programs division of the school. At the undergraduate level, BS degrees are offered in Exercise Physiology, Health Informatics and Information Management, Immunology and Medical Microbiology and Medical Laboratory Science, with tracks of study in Clinical Laboratory Science and Histotechnology. The undergraduate experience is enhanced by the academic health sciences environment as described above and in most cases involves practical work in a health care setting in addition to classroom and laboratory experiences. Many students have the opportunity to pursue undergraduate research experiences.

The undergraduate degree programs in the School of Medicine are enhanced by the presence of robust biomedical sciences graduate programs and other graduate and professional programs, including the M.D. degree program. Graduate degrees in the Professional Programs include Exercise Physiology (both MS and PhD), master's in occupational therapy (MOT), doctorate in physical therapy (DPT), and master's of health sciences in pathologist's assistant (MHS).

Undergraduate students may choose to enter the workforce or to continue their study in a graduate or professional program. These programs often have competitive admission requirements for which the undergraduate degree programs provide an excellent foundation.

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## 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)

### VICE DEAN-PROFESSIONAL & UNDERGRADUATE PROGRAMS

- MaryBeth Mandich - Ph.D. (West Virginia University)

### ASSOCIATE DEANS

- Scott A. Cottrell - Ed.D. (West Virginia University)  
Student Services & Curriculum
- Barbara Ducatman - M.D. (Albany Medical College)  
Faculty Services
- James P. Griffith - M.D. (West Virginia University)  
Charleston Campus Student Services
- Maria Kolar - M.D. (West Virginia University)  
Veterans Affairs
- Rosemarie Cannarella Lorenzetti - M.D. (West Virginia University)  
Eastern Campus Student Services
- Timothy Palencik -

Finance

- James M. Stevenson - M.D. (West Virginia University)  
Development

## **ASSISTANT DEANS**

- Kathleen Bors - M.D. (West Virginia University)  
Charleston Campus
- James Brown - M.D. (Meharry Medical School)  
Eastern Campus
- Hannah Hazard - M.D. (West Virginia University)  
Admissions
- Fred L. Minnear - Ph.D. (Oregon Health Sciences University)  
Graduate Studies
- Jamal Mustafa - Ph.D. (Lucknow University, India)  
Research
- James O'Donnell - Ph.D. (University of Chicago)  
Research
- David Wilks - M.D. (University of Pittsburgh School of Medicine)  
Medical Education Technology

## **ASSOCIATE VICE PRESIDENT FOR HEALTH SCIENCE**

- Clark Hansbarger - M.D. (Medical College of Virginia School of Medicine)  
Dean Charleston Campus
- Konrad Nau - M.D. (West Virginia University)  
Dean Eastern Campus

## **SENIOR ASSOCIATE DEAN/CHIEF ADMINISTRATIVE OFFICER**

- John Worth - M.B.A. (State University of New York)

## **Degree Designation Learning Goals**

### **BACHELOR OF SCIENCE (BS)**

#### **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.