

# WWAMI Medical Education Program

## Director

Brant Schumaker DVM, MPVM, PhD  
937 Highland Blvd., Suite 5220  
Bozeman, MT 59715  
Email: b (mteintze@montana.edu) rant.schumaker@montana.edu  
Home Page: www.montana.edu/wwami (<http://www.montana.edu/wwwami/>)

## Program Manager

Kayla Ouert  
937 Highland Blvd., Suite 5220  
Bozeman, MT 59715  
Tel: 406-994-4411  
Email: Kayla.Ouert@montana.edu (Kayla.Ouert@montana.edu)

## Program Description

Sponsored by the University of Washington School of Medicine and leading to an M.D. degree from that school, the WWAMI program is designed to provide medical education for citizens of the participating states (Washington, Wyoming, Alaska, Montana and Idaho), to provide a physician workforce for these states, and to encourage physicians to practice in locations where they are most needed.

WWAMI is a medical school program, *not a premedical program*. The program is supported by the State of Montana and guarantees that 30 qualified Montana residents can be admitted to the Medical School at the University of Washington School of Medicine each year.

Students who enter the program complete their Foundations Phase (18 months) at the participating university in their home state. First year programs exist at University of Washington-Seattle, and Spokane, the University of Wyoming-Laramie, the University of Alaska in Anchorage, Montana State University-Bozeman, and the University of Idaho-Moscow. The curriculum at each site has been standardized and is compatible with the University of Washington School of Medicine curriculum which integrates the basic and clinical sciences, and includes rural health care at an early time in medical education.

Course subject matter at MSU includes nine Blocks and five Threads that will continue throughout the eighteen month Foundations Phase.

At the conclusion of the Foundations Phase, students enter the Patient Care Phase of their education. During this phase students have the opportunity to complete their third year and part of their fourth year of medical school at "track" sites in Billings, Bozeman or Missoula. Students receive training from physicians in the communities where the physicians live and practice. These "Clerkships" are established for a given educational need (e.g., pediatrics, family medicine). Clerkship sites have been established all over the state:

Anaconda: Psychiatry  
Billings: Emergency Medicine, Family Medicine, Internal Medicine, Neurology, OB/GYN, Pediatrics, Psychiatry, Surgery  
Bozeman: Emergency Medicine, Family Medicine, Internal Medicine, Neurology, OB/GYN, Pediatrics, Psychiatry, Surgery  
Butte: Family Medicine  
Dillon: Internal Medicine  
Great Falls: Emergency Medicine, Internal Medicine, Neurology, OB/GYN, Pediatrics  
Helena: OB/GYN, Pediatrics, Psychiatry

Kalispell: Neurology, OB/GYN, Pediatrics, Psychiatry, Surgery  
Lewistown: Internal Medicine  
Missoula: Emergency Medicine, Family Medicine, Internal Medicine, Neurology, OB/GYN, Pediatrics, Psychiatry, Surgery  
Whitefish: Family Medicine, OB/GYN

To be eligible for the Montana State University WWAMI program, the prospective medical student must be certified by the Montana University System as a resident of Montana and must satisfy the admission requirements of the University of Washington School of Medicine. It is not necessary for a student to complete the premedical (undergraduate) education at MSU in order to be eligible for the WWAMI program. Students are selected by the Admissions Office at the University of Washington School of Medicine and are registered at the University of Washington School of Medicine as well as at their home institution for the first year and a half of the program. To learn more, please see the WWAMI program website (<http://www.montana.edu/wwami/>).

## Foundations Medical School Curriculum

The following courses are completed in Bozeman over an 18-month period from July in the first year through December of the following year. Students then study for and take Step I of their National Board exams and continue to the Patient Care Phase of the curriculum.

Required Courses: First Summer Session

### Block 1: Fundamentals of Medical Science & Research MEDS 510

Comprehensive introduction to foundational basic science and research concepts in medicine. Topics covered include molecular and cell biology; human physiology; genetics and biochemistry; community health and disease; clinical epidemiology, research study design and data analysis. Incorporates fundamental principles of anatomy, pathology, and pharmacology, and medicine in society. Pass/Fail only.

## Required Courses: First Fall Semester

### Block 2: Infections & Immunity MEDS 520

Comprehensive introduction to the fundamentals of the immune system; microbiology; infectious diseases; inflammation and repair. Topics covered include the pathogenesis and immunity of infectious disease, immunodeficiencies, hypersensitivity, autoimmunity, and the basis of immunologic diagnostics. Integrates relevant principles of anatomy, pathology, and pharmacology and medicine in society. Pass/Fail only.

### Block 3: Cancer, Hormones, & Blood MEDS 515

Comprehensive introduction to the fundamentals of endocrinology, hematology, and oncology. Topics covered include endocrine regulation of metabolism; normal physiology and pathophysiologic mechanisms responsible for clinically important endocrine disorders; disturbances in red cell, white cell, and platelet production; abnormalities of hemostasis; and malignant neoplasia. Integrates relevant principles of anatomy, pathology and pharmacology, and medicine in society. Pass/Fail only.

## Required Courses: Spring Semester

### Block 4: Muscles, Joints, Bones, & Skin MEDS 530

Comprehensive introduction to the fundamentals of the musculoskeletal system and dermatology. Topics covered include clinical manifestations in

the skin, muscles, bones, and joints and the pathophysiology of trauma, aging, infection, and inflammation. Integrates relevant principles of anatomy, pathology, and pharmacology. Pass/Fail only.

### **Medicine, Health, and Society I**

MEDS 525

Integrates School of Medicine thematic content with an emphasis on core concepts for clinical practice in the changing healthcare environment. Students explore areas related to humanism in medicine including the themes of ethics, health systems, systems improvements, health equity, diversity, social determinants of health, and global population and public health. Pass/Fail only.

### **Block 5: Cardiovascular System**

MEDS 540

Comprehensive interdisciplinary introduction to cardiovascular biology and medicine, including thoracic anatomy, physiology, radiology, pathology, pharmacology, and surgery. Topics covered include cardiac electrophysiology, cardiac muscle mechanics, myocardial infarction, and cardiac repair. Pass/Fail only.

### **Block 6: Respiration & Regulation**

MEDS 542

Comprehensive interdisciplinary introduction to the respiratory and renal-urinary systems and medicine, including pulmonary and renal anatomy, physiology, radiology, pathology, and pharmacology. Topics covered include ventilation mechanics; obstructive, restrictive, and pulmonary-vascular diseases; renal function; and common kidney diseases. Pass/Fail only.

## **Required Courses: Second Summer Session**

### **Block 7: Head, Neck, & Gut**

MEDS 550

Comprehensive introduction to head and neck anatomy and the gastrointestinal system. Topics covered include gastrointestinal and liver physiology; pathophysiology of digestion and hepatic function; the principles and practice of clinical nutrition. Integrates the relevant anatomy, pathology, and pharmacology of the GI system. Pass/Fail only.

### **Independent Investigative Inquiry**

MEDS 501

The purpose of the Independent Investigative Inquiry—the III—portion of the curriculum is to engage students in activities that will foster the skills of life-long learning essential for practicing physicians in the 21st century. Each student selects a topic of particular interest to her or him, and to investigate the subject independently, following the advice of a faculty advisor and other resources in the WWAMI community. Pass/Fail only.

### **Medicine, Health, and Society II**

MEDS 535

Integrates School of Medicine thematic content with an emphasis on core concepts for clinical practice in the changing healthcare environment. Students explore areas related to humanism in medicine including the themes of ethics, health systems, systems improvements, health equity, diversity, social determinants of health, and global population and public health. Pass/Fail only.

## **Required Courses: Second Fall Semester**

### **Block 8: Mind, Brain, & Behavior**

MEDS 560

Comprehensive introduction to the organization and function of the central nervous system with a focus on clinical application of this knowledge to systematically approach the differential diagnosis and management of major neurologic, psychiatric, and behavioral disorders. Topics covered include normal physiological, pathophysiologic mechanisms, and current therapeutic approaches to disease including pharmacological, behavioral, surgical, and others. Integrates relevant principles of anatomy, pathology and pharmacology. Pass/Fail only.

### **Block 9: Lifecycle & Reproduction**

MEDS 570

This course will cover normal and abnormal human development, reproductive functions including formation and maturation of ova and sperm, menstruation, normal pregnancy, and labor and delivery. Additionally, this course includes relevant fundamental scientific principles in pelvic anatomy, pathology, and pharmacology.

### **Threads**

Anatomy & Embryology, Histology/Pathology, Pharmacology, Integrations, and Foundations of Clinical Medicine take place throughout the 18-month Foundations Phase. A Primary Care Practicum, in which students are paired up with a local physician, is scheduled for one day every other week for two semesters during the Foundations Phase. Medicine, Health, & Society has four weeks devoted to the topic during the Foundations Phase.

The WWAMI Medical Education Program is constantly working on refining the curriculum with the University of Washington School of Medicine.

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## **Further Information**

Contact Kayla Ouert (WWAMI Program Manager) at MSU or follow the URL <http://www.montana.edu/wwami> (<http://www.montana.edu/wwwami/>) for the complete application, admissions, and program requirements.