

# MEDS - Medical Science

## **MEDS 500 Seminar: 1 Credits (1 Other)**

PREREQUISITE: WWAMI medical student or consent of the WWAMI Medical Program and Dean of The Graduate School. Yearly conference dealing with topics related to Montana's colorful medical history Repeatable up to 4 credits.

## **MEDS 501 Independent Investigative Inquiry (III): 4 Credits (4 Other)**

PREREQUISITES: WWAMI medical students

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.

## **MEDS 502 Introductory Primary & Continuity Care: 3 Credits (1 Lec, 2 Other)**

PREREQUISITE: WWAMI Medical Student. This course introduces medical students to continuity of care by working with practicing physicians. This course is new as of Fall 2015 and is not equivalent to MEDS 502, Spanish for Health Professionals, offered prior to Fall 2015 Repeatable up to 5 credits.

## **MEDS 503 Clinical Reasoning: 3 Credits (1 Lec, 4 Lab)**

PREREQUISITE: WWAMI Medical Student. This course will involve instruction and communication skills, interview techniques, physical examination skills and clinical reasoning. This course is new as of Fall 2015 and is not equivalent to MEDS 503, Poetics of Healing, offered prior to Fall 2015. WWAMI

## **MEDS 504 Independent Investigative Inquiry Final Project: 1 Credits (1 Other)**

PREREQUISITE: WWAMI Medical Student

Students will engage in a project with an in-depth focus on a health-related, thereby giving additional context to their training and career as a physician. In the process they will develop the skills to acquire and critically evaluate new information under the guidance of faculty mentorship. This will culminate in dissemination of their scholarly work through a poster presentation or a final paper depending on the type of scholarship chosen.

## **MEDS 505 Rural Health Care Delivery: 1 Credits (1 Lec)**

PREREQUISITE: WWAMI medical student. Provide historical and current information about the health care industry, health care delivery systems and economics of health care and health care policy; with emphasis on rural health care. The purpose is to encourage WWAMI students to consider practicing in rural communities and/or providing health care to underserved populations. The infrastructure of the Montana health Care Delivery system will be presented in detail. Prior to Fall 2014, "Rural Health Care Delivery" was offered as MEDS 560 Repeatable up to 14 credits.

## **MEDS 506 Spanish for Health Professionals: 1 Credits (1 Lec)**

PREREQUISITE: WWAMI medical student. A mixed-level course for beginning to advanced learners of the Spanish language with a focus to communicate in a medical setting. Objectives include learning the essential skills to converse with Spanish-speaking patients, understand important cultural considerations, conduct patient interviews in Spanish focusing on different medical problems, and set a foundation for further learning of Spanish in the healthcare context. This course was previously offered, up to Spring 2015, as MEDS 502, Spanish Health Professionals. This course is not equivalent to MEDS 502, Intro Primary & Continuity Care, beginning Fall 2015. WWAMI

## **MEDS 507 The Healer's Art: 1 Credits (1 Lec)**

PREREQUISITE: WWAMI Medical Student. Encourages cultivation of human dimensions in practice of medicine while strengthening personal commitment to medicine as a life's work. Facilitates student recognition of commonality of personal concerns among peers and student response to the dimension of mystery in the experience of illness as well as development of the capacity for awe. WWAMI

## **MEDS 508 Medical History Conference: 1 Credits (1 Other)**

PREREQUISITE: WWAMI medical student. Guest lecturers discuss a variety of topics WWAMI Medical Program Repeatable up to 4 credits.

## **MEDS 510 Molecular & Cellular Basis of Disease: 9 Credits (4 Lec, 2 Lab, 4 Other)**

PREREQUISITE: WWAMI Medical Student. This course teaches the principles of cell and molecular biology, physiology, biochemistry, and genetics. Aspects include the organization of the genome and units of heredity, properties of macromolecules, and cytoarchitecture. Students will gain an understanding of intracellular communication, cell-cell interactions, properties of differentiated cells and the diversity of their physiological properties and functions. Introduction to anatomy, histology, and pharmacology content will be incorporated into the course. This course is not equivalent to MEDS 510 Micro Anatomy (Histology), last offered Fall 2014. WWAMI Repeatable up to 13 credits.

## **MEDS 515 Ecology of Health and Medicine - Foundations 1: 1 Credits (1 Lec)**

This course integrates School of Medicine thematic content with an emphasis on core concepts needed for clinical practice in the changing healthcare environment. Students will explore areas related to humanism in medicine including the themes of diversity, health equity, ethics, professionalism, and determinants of health. Pass/ Fail only.

## **MEDS 520 Invaders & Defenders: 8 Credits (4 Lec, 2 Lab, 3 Other)**

PREREQUISITE: WWAMI Medical Student. This course will involve integrated content in immune system, microbial biology, infectious diseases, inflammation and repair, and skin and connective tissue. Introduction to anatomy, histology, and pharmacology content will be incorporated into the course. Prior to Fall 2015, MEDS 520 was "Molecular & Cellular Basis of Disease"; this course is not equivalent to earlier MEDS 520 courses. WWAMI

## **MEDS 525 Ecology of Health & Medicine – Foundations 2: 1 Credits (1 Lec)**

This course integrates School of Medicine thematic content with an emphasis on core concepts needed for clinical practice in the changing healthcare environment. Students will explore areas related to humanism in medicine including the themes of diversity, health equity, ethics, professionalism, and determinants of health. Pass/ Fail only.

## **MEDS 530 Circulatory System: 13 Credits (5 Lec, 4 Lab, 6 Other)**

PREREQUISITES: WWAMI Medical Student. Circulatory systems will present students with an integrated approach to the key supply chain and waste management systems of the body. Students will follow the movement of oxygen from the environment to the tissues, and movement of waste products of metabolism along the opposite path, examining the coordinated roles of the lungs, heart and kidney in the control and regulation of these processes. Introduction to anatomy, histology and pharmacology content will be incorporated into the course. WWAMI Medical Education Program

## **MEDS 535 Ecology of Health & Medicine – Foundations 3: 1 Credits (1 Lec)**

This course integrates School of Medicine thematic content with an emphasis on core concepts needed for clinical practice in the changing healthcare environment. Students will explore areas related to humanism in medicine including the themes of diversity, health equity, ethics, professionalism, and determinants of health. Pass/ Fail only.

**MEDS 540 Blood and Cancer: 4 Credits (3 Lec, 1 Lab)**

PREREQUISITE: WWAMI Medical Student. This course familiarizes students with basic pathophysiologic mechanisms leading to disturbances of red cell, white cell, and platelet production, as well as abnormalities of hemostasis presenting clinical problems. The Musculoskeletal content will focus on clinical manifestations in the musculoskeletal system and pathophysiology of trauma, aging, infection, and inflammation. Pass/Fail only. WWAMI  
Repeatable up to 7 credits.

**MEDS 542 Musculoskeletal: 2 Credits (1 Lec, 1 Lab)**

PREREQUISITE: WWAMI Student. Comprehensive introduction and overview of musculoskeletal content for medical students, geared to gain knowledge on clinical manifestations in the musculoskeletal system and pathophysiology of trauma, aging, infection, and inflammation

**MEDS 545 Ecology of Health & Medicine – Foundations 4: 1 Credits (1 Lec)**

This course applies School of Medicine thematic content with an emphasis on core concepts needed for clinical practice in the changing healthcare environment. Students will explore areas related to humanism in medicine including the themes of diversity, health equity, ethics, professionalism, and determinants of health. Pass/ Fail only.

**MEDS 550 Energetics & Homeostasis: 8 Credits (4 Lec, 2 Lab, 3 Other)**

PREREQUISITE: WWAMI Medical Student This course will involve integrated content in metabolism, nutrition, obesity, diabetes, gastrointestinal/liver physiology, and endocrinology. Additionally, this course includes relevant fundamental scientific principles in anatomy, pathology, and pharmacology. WWAMI Medical Education Program

**MEDS 560 Mind, Brain, and Behavior: 13 Credits (5 Lec, 4 Lab, 6 Other)**

PREREQUISITE: WWAMI Medical Student. In this course, students will learn the fundamental scientific principles of the structure and function of the normal human nervous system in situ, define major neurologic, psychiatric, and behavior disorders, and develop a systematic approach to their differential diagnosis and management. WWAMI Medical Education Program  
Repeatable up to 14 credits.

**MEDS 570 Lifecycles & Reproduction: 8 Credits (4 Lec, 2 Lab, 3 Other)**

PREREQUISITE: WWAMI Medical Student. 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. WWAMI Medical Program

**MEDS 580 Special Topics: 1-4 Credits (1 Lec)**

PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. -  
Repeatable up to 12 credits.

**MEDS 581 Farm to Clinician: A Culinary Medicine Approach to Healthcare: 1 Credits (1 Lec)**

PREREQUISITES: WWAMI medical student or consent of instructor. This interprofessional course will introduce the concept of food as medicine with a focus on nutrition, farm to table and sustainable food systems; give an overview of the biochemical interactions and benefits of particular foods; discuss application in the clinical setting with a focus on rural healthcare; and provide hands-on, experiential cooking lessons focused on the Mediterranean style of eating and other emerging topic related to nutrition  
Repeatable up to 2 credits.

**MEDS 594 Seminar: 1 Credits (1 Other)**

PREREQUISITE: WWAMI medical student. Topics offered at the graduate level which are not covered in regular courses  
Repeatable up to 4 credits.

**MEDS 595 Research Methods: 1 Credits (1 Lec)**

Community health and disease, including assessment of disease risk and mechanisms of epidemic detection, spread, and control; interpretation of research design, data analysis, bias source; and clinical epidemiology, including evaluation and application of diagnostic tests, natural history of disease, and quantitative aids for clinical decision making.

**MEDS 624 Health Equity and Community Organizing: 1 Credits (0)**

PREREQUISITE: Enrollment in a graduate or upper division undergraduate health professions program and consent of instructor. This interprofessional course equips students with tools to organize themselves and others to address social and structural injustices that perpetuate health disparities. Didactic coursework will be complemented with opportunities to apply skills and gain confidence through hands-on collaboration with local leaders and engagement in community-driven listening and advocacy campaigns