### Medicine Doctorate (MD)

#### Courses

**MD A602 Introductory Primary and Continuity Care Clerkship 1-2 Credits**
Introduces medical students to continuity of care by working with practicing physicians. Course demonstrates how to work with individuals to help them achieve optimal health, and includes topics in primary and preventative care, geriatrics, rehabilitation, palliative care, behavioral health, and pain management.

**Special Note:** May be repeated twice for credit.

**Registration Restrictions:** Admission to WWAMI MD program

**MD A603 Clinical Skills 3-4 Credits**
Instruction in communication skills, interviewing techniques, physical examination, documentation and clinical reasoning to introduce the physician role. Course will include hospital-based patient encounters to develop comfort with the physician role.

**Special Note:** May be repeated twice for credit.

**Registration Restrictions:** Admission to WWAMI MD program

**MD A604 Ecology of Health and Medicine - Foundations 1 1 Credit**
Emphasizes core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of diversity; health equity; ethics; professionalism; and determinants of health, such as models of health disease distribution, population health, ethical principles, respect, communication, evidence-based practice, the influence of health services on health, health system structures, and concepts of systems thinking.

**Special Note:** This course is taught in a 1-week intensive format.

**Registration Restrictions:** Admission to WWAMI MD program

**MD A605 Ecology of Health and Medicine - Foundations 2 1 Credit**
Emphasizes core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of diversity; health equity; ethics; professionalism; and determinants of health, such as pathways of health disparities, method of ethical analysis, accountability and compassion, roles, influence of social factors on health, health systems policy and the Triple Aim, and application of systems thinking.

**Special Note:** This course is taught in a 1-week intensive format.

**Registration Restrictions:** Admission to WWAMI MD program

**Prerequisites:** MD A604.

**MD A606 Ecology of Health and Medicine - Foundations 3 1 Credit**
Emphasizes core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of diversity; health equity; ethics; professionalism; and determinants of health, such as interplay of components of Ecosocial Model, ethical case analysis, advocacy and integrity, high-functioning teams, influence of individual factors on health, health economics, patient safety, health metrics, and application of systems thinking.

**Special Note:** This course is taught in a 1-week intensive format.

**Registration Restrictions:** Admission to WWAMI MD program

**Prerequisites:** MD A604 and MD A605.

**MD A607 Ecology of Health and Medicine - Foundations 4 1 Credit**
Emphasizes core concepts needed for clinical practice in the changing healthcare environment. Explores areas related to humanism in medicine, including the themes of diversity; health equity; ethics; professionalism; and determinants of health, such as accountability in health disparities, ethical case analysis, excellence, conflict resolution, primary care and rural medicine systems, informed medical decision making, advanced patient safety, global burden of disease, application of systems thinking.

**Special Note:** This course is taught in a 1-week intensive format.

**Registration Restrictions:** Admission to WWAMI MD program

**Prerequisites:** MD A604 and MD A605 and MD A606.

**MD A608 Clinical Epidemiology 2 Credits**
Introduces methods for identifying, interpreting and applying high quality, relevant published medical research and evidence to the practice of clinical medicine for effective preventative and therapeutic interventions. Topics include research study design of randomized trials, measures of effect, interpretation of causal relationships, contexts for screening and diagnosis, interpretation of test results, application of statistical measures, systematic reviews and meta-analyses.

**Special Note:** This course is taught on a compressed schedule.

**Registration Restrictions:** Admission to WWAMI MD Program

**MD A610 Molecular and Cellular Basis of Disease 6 Credits**
Introduces cell physiology, cell biology, and cell function, genes, genetics and genetic diseases/disorders incorporating fundamental principles in anatomy, pathology and pharmacology. Topics include membrane physiology, sensory receptors, muscle energetics and contractility, autonomic nervous system, tissue response to disease, pharmacodynamics, pharmacokinetics and pharmacogenetics.

**Registration Restrictions:** Admission to WWAMI MD program

**MD A620 Invaders and Defenders 5 Credits**
Introduces the immune system, microbial biology, infectious diseases, inflammation and repair, and skin and connective tissue incorporating applicable fundamental principles in anatomy, pathology and pharmacology. Topics discussed include the pathogenesis and immunity of infectious disease, immunodeficiencies, hypersensitivity, autoimmunity, and the basis of immunologic diagnostics.

**Registration Restrictions:** Admission to WWAMI MD program

**MD A630 Circulatory System 9 Credits**
Provides an interdisciplinary approach to cardiovascular, respiratory and renal-urinary medicine, including anatomy, physiology, imaging, pathology, medicine and surgery.

**Registration Restrictions:** Admission to WWAMI MD program

**MD A640 Blood and Cancer 3 Credits**
Introduces fundamental principles of hematology and oncology, incorporating relevant concepts from anatomy, histology, pathology, imaging and pharmacology. Topics include abnormalities in hemostasis and blood cells, genetic dysregulation in neoplasia, and the etiology, presentation and treatment of archetypal cancers.

**Registration Restrictions:** Admission to the WWAMI MD program
MD A641 Musculoskeletal System 2 Credits
Introduces fundamental principles of musculoskeletal system, incorporating relevant concepts from anatomy, histology, pathology, imaging and pharmacology. Topics include anatomical structures of limbs and spine, and disorders of the musculoskeletal system.

**Registration Restrictions:** Admission to the WWAMI MD program

MD A650 Energetics and Homeostasis 5 Credits
Introduces the physiology and pathology of digestion and hepatic function, including obesity and diabetes, principles and practice of clinical nutrition, the endocrine integration of metabolism, and clinically important endocrine pathophysiology, including relevant topics of anatomy, pathology and pharmacology.

**Registration Restrictions:** Admission to WWAMI MD program

MD A660 Mind, Brain and Behavior 8 Credits
Presents the organization and function of the head, neck and central nervous system with a focus on clinically applying this knowledge to systematically approach the differential diagnosis and management of major neurologic, psychiatric and behavioral disorders. Current therapeutic approaches to disease are explained, including pharmacological, behavioral, surgical and other therapies.

**Registration Restrictions:** Admission to WWAMI MD program

MD A670 Lifecycle and Reproduction 4 Credits
Introduces normal and abnormal human development, reproductive functions including ova and sperm development, menstruation, normal pregnancy, and labor and delivery along with infertility, family planning techniques, and reproductive aging; integrates relevant fundamental principles in pelvic anatomy, pathology, histology, imaging and pharmacology.

**Registration Restrictions:** Admission to WWAMI MD program

MD A698A Independent Investigative Inquiry - III 6 Credits
Engages students in research activities in either hypothesis-driven, rural/underserved experience-driven, global-health experience-driven, simulation development-driven, or systematic literature review that will foster the skills of life-long learning essential for practicing physicians in the 21st century. Each student selects and independently investigates a topic of particular interest to them within one of these frameworks following faculty approval and guidance.

**Special Note:** Research conducted during summer between terms 2 and 3 in Foundations Phase of MD program.

**Registration Restrictions:** Admission to the WWAMI School of Medical Education and graduate standing

MD A698B Independent Investigative Inquiry - Poster 1 Credit
Engages students in preparation and presentation of professional quality research poster covering the independent investigative inquiry project conducted in MD A698A. Students will develop skills in dissemination of scholarly work through poster design, figure development, assembly and poster presentation at regional Medical Student III Poster Session.

**Registration Restrictions:** Admission to the WWAMI School of Medical Education and graduate standing

**Prerequisites:** MD A698A with a minimum grade of P or concurrent enrollment.