

PHYSICIAN ASSOCIATE STUDIES (PA)

PA 511 - Introduction to Health Professions & PA Practice. 1 Credit.

Restricted to students in the Master of Physician Associate Studies program. In this course the student will be given the opportunity to: 1) examine the role of the physician associate in health care delivery and the scope of PA practice; 2) interpret health policy and law; 3) review the physician associate profession and its history; 4) discuss the ethical dimensions in health care; and 5) recognize the PA role in interprofessional health care.

PA 512 - Preventive Medicine. 2 Credits.

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the discipline of health promotion and preventive medicine. Many illnesses that patients suffer from and succumb to could be avoided with timely and appropriate behavioral intervention, screening, and preventive measures. Benjamin Franklin understood this concept in 1736 when he famously stated that "an ounce of prevention is worth a pound of cure." This course will give students the evidence-based knowledge and tools necessary to impart meaningful changes in their patients' lives. Specifically, the student will be given the opportunity to: 1) gain familiarity with methods to promote overall health and well-being; 2) discuss the importance of identifying risk factors for disease; 3) explore commonly used preventive medicine guidelines; 4) discuss different types of commonly used screening tools; 5) understand common cancer screening guidelines; 6) gain familiarity with routine immunization schedules for both pediatric and adult patients; 7) discuss the importance of smoking cessation for all patients; 8) describe patient advocacy; and 9) discuss disease reporting and surveillance, the public health system, and population health.

PA 513 - Evidence-based Medicine. 1 Credit.

Restricted to students in the Master of Physician Associate Studies program. This course is designed to help students navigate the medical literature to find answers to clinical questions that are based on valid medical research evidence, referred to as evidence-based medicine (EBM). Understanding of research methods is essential for an effective practice of EBM as future clinicians. During this course, students will learn and practice how to: 1) formulate research and clinical questions; 2) search common databases of available medical literature; 3) differentiate between various types of research studies; 4) recognize different types of biases in research and threats to validity of research findings; 5) compare and contrast different types of sampling methods; 6) critically appraise the literature for selected clinical topics; and 7) appreciate the value of lifelong learning in the health professions.

PA 514 - Cross-Cultural Health. 1 Credit.

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. In this course, the student will be challenged to interrogate and refine their own belief systems while working to build a general understanding of cultural knowledge. The student will be given the opportunity to recognize and mitigate factors that contribute to health disparities and limited access. The student will also learn practical strategies for engaging patients in a manner that demonstrates cultural humility.

PA 516 - Medical Ethics. 1 Credit.

Prereq., PA 534, PA 543, PA 546, PA 551, and PA 595 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. As stated by William Osler, "The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head." One must always act by a code of ethics and a duty of service that in medicine puts patient care above self-interest. This course is designed to introduce students to the field of medical ethics and allow students to critically think through common ethical scenarios faced throughout clinical practice. The University of Montana PA Program supports the AAPA's Guidelines for Ethical Conduct for the Physician Assistant Profession (<https://www.aapa.org/wp-content/uploads/2017/02/16-EthicalConduct.pdf>) and the NCCPA's Code of Conduct for Certified and Certifying Physician Assistants (<https://www.nccpa.net/wp-content/uploads/2020/09/Code-of-Conduct.pdf>). During this course, the student will be given the opportunity to discuss topics covered in each of these publications as well as discuss patient cases in which ethical medical decision-making is required.

PA 521 - Diagnostic Methods. 2 Credits.

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the different diagnostic methods available for the evaluation and diagnosis of medical conditions in patients. It will specifically cover the different imaging modalities including plain radiography (X-ray), computed tomography (CT), magnetic resonance imaging (MRI), ultrasonography, vascular imaging, as well as electrocardiograms (ECGs), echocardiograms (ECHOs), and pulmonary function tests (PFTs). The student will be given the opportunity to: 1) list commonly used diagnostic studies; 2) understand risks associated with these studies; 3) list contraindications to the use of certain studies; 4) provide basic interpretations of each diagnostic study; 5) understand the use of contrast in certain radiological studies; and 6) appreciate the difference between routine, urgent, and emergent studies.

PA 522 - Behavioral Health. 2 Credits.

Restricted to students in the Master of Physician Associate Studies program. During this course, the student will be given the opportunity to: 1) identify normal physical, social, and psychosocial processes and distinguish these from processes due to illness and injury; 2) understand the neurobiological processes and genetics in relation to mental illness; 3) provide a foundation for assessing a patient's state of mental health and development; 4) explain the classification of common mental illnesses set forth in the Diagnostic and Statistical Manual of Mental Disorders; 5) recognize the importance of an appropriate and timely referral; 6) recognize the importance of other healthcare professionals in the management of patients with mental illness; 7) recognize the importance of family and community dynamics in the management of patients with mental illness; and 8) discover health and well-being in the clinician's personal life and how this may intertwine with the clinician-patient relationship, professionalism, and cultural competence.

PA 523 - Professional Practice I. 2 Credits.

Prereq., PA 534, PA 543, PA 546, PA 551, and PA 595 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to assist the student in transitioning to clinical practice. The student will be given the opportunity to: 1) exhibit their clinical skills and review didactic knowledge gained throughout the curriculum; 2) prepare for clinical practice by developing an understanding of health policy, billing and coding, reimbursement, and professionalism issues; 3) understand the importance of ethical behavior within a healthcare team; 4) understand the importance of interprofessional practice within a healthcare team; 5) prepare for the physician assistant national certification exam (PANCE) by early study of board review materials and questions; and 6) prepare for employment.

PA 524 - Research. 2 Credits.

Prereq., PA 513, PA 534, PA 543, PA 546, PA 551, and PA 595 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to follow PA 513, Evidence-based Medicine. Building on the knowledge gained from that course, students will be engaged in critically appraising synthesized evidence such as scoping review, systematic reviews and meta-analyses, and analysis of clinical practice guidelines. Students will be given opportunities to complete a project on critically appraised topics and to disseminate this project in a manuscript format and a poster presentation.

PA 531 - Pathophysiology I. 3 Credits.

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the systems-based pathophysiology of disease. This course will specifically cover the pathophysiology of disorders of the skin, eye, ear, and diseases/disorders within the following organ systems: cardiovascular, respiratory, and digestive. For each disease/disorder covered, the student will be given the opportunity to: 1) incorporate knowledge of normal anatomy and physiology to understand the pathophysiology of disease; 2) describe malfunctions of normal physiology associated with disease; 3) use problem-solving skills to relate pathophysiology to the clinical presentation of disease and formation of high-quality differential diagnoses; and 4) describe the pathophysiology of selected diseases.

PA 532 - Pathophysiology II. 3 Credits.

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the systems-based pathophysiology of disease. It will specifically cover the pathophysiology of disorders of the neurological, musculoskeletal, endocrine, urinary, reproductive, blood and circulatory, and lymphatic systems as well as special topics in infectious disease. It will also cover the pathophysiology of pregnancy complications, congenital and genetic disorders, complications of adolescence, complications of aging, and neoplasms/cancer. For each disease/disorder covered, the student will be given the opportunity to: 1) incorporate knowledge of normal anatomy and physiology to understand the pathophysiology of disease; 2) describe malfunctions of normal physiology associated with disease; 3) use problem-solving skills to relate pathophysiology to the clinical presentation of disease and formation of high-quality differential diagnoses; and 4) describe the pathophysiology of selected diseases.

PA 533 - Clinical Pharmacology I. 3 Credits.

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical pharmacology through an organ systems-based approach. It will specifically cover the basic principles of pharmacology, principles of pharmacogenomics, anti-infective agents, and dietary supplements and herbal medications as well as cover therapeutics used to treat conditions found in the dermatological, ophthalmological, otorhinolaryngological (ENT), cardiovascular, pulmonary, and gastrointestinal organ systems. The student will be given the opportunity to demonstrate the ability to: 1) identify the classes of drugs used to treat diseases commonly encountered in a primary care and emergency settings; 2) recognize the commonly used drugs in each class; 3) identify the basic pharmacodynamic properties of each class of drug, the mechanism of action, and important consequences of using each class of drug; 4) recognize the signs and symptoms of common adverse effects and of possible toxic or life-threatening effects of drugs; 5) identify precautions or contraindications to the use of a drug; 6) identify significant drug-drug interactions; 7) recognize the importance of patient education in determining compliance, avoidance of potential problems, and success of therapy; 8) apply statistical and critical thinking skills to evaluate literature data; 9) use resource materials for determining proper usage of chemotherapeutic agents; and 10) understand the role of the PA in writing prescriptions.

PA 534 - Clinical Pharmacology II. 3 Credits.

Prereq., PA 514, PA 521, PA 522, PA 532, PA 533, PA 542, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical pharmacology through an organ systems-based approach. It will specifically cover therapeutics used to treat conditions found in the neurological, musculoskeletal, endocrine, renal, and genitourinary systems as well as drugs used in women's health, pediatrics, geriatrics, hematology/oncology, rheumatology, and those to treat obesity and special topics in infectious disease. The student will be given the opportunity to demonstrate the ability to: 1) identify the classes of drugs used to treat diseases commonly encountered in a primary care and emergency settings; 2) recognize the commonly used drugs in each class; 3) identify the basic pharmacodynamic properties of each class of drug, the mechanism of action, and important consequences of using each class of drug; 4) recognize the signs and symptoms of common adverse effects and of possible toxic or life-threatening effects of drugs; 5) identify precautions or contraindications to the use of a drug; 6) identify significant drug-drug interactions; 7) recognize the importance of patient education in determining compliance, avoidance of potential problems, and success of therapy; 8) apply statistical and critical thinking skills to evaluate literature data; 9) use resource materials for determining proper usage of chemotherapeutic agents; and 10) understand the role of the physician assistant in writing prescriptions.

PA 541 - Patient Assessment I. 4 Credits.

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to patient assessment using an organ systems-based approach to history taking and the completion of physical examinations. It will initially cover general principles of history taking and physical examinations as well as assessment components of the skin, hair, nails, head, eyes, ears, nose, throat, and neck. The second part of the course will progress into the cardiovascular system, peripheral vascular system, pulmonary system/thorax, and abdomen. The student will be given the opportunity to 1) communicate skillfully with patients using appropriate interviewing and patient education methods; 2) obtain thorough focused and general medical histories; 3) demonstrate proper use of instruments and techniques in the performance of physical examinations; 4) apply knowledge acquired in anatomy, physiology, and other courses to the assessment of patients; 5) detect and analyze abnormal interview and physical exam findings; 6) correlate essential historical data with exam findings; and 7) discuss pertinent available patient resources.

PA 542 - Patient Assessment II. 4 Credits.

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to patient assessment using an organ systems-based approach to history-taking and the completion of physical examinations. It will specifically cover assessment components of the nervous and musculoskeletal systems building on the knowledge gained from PA 541, Patient Assessment I. The student will be given the opportunity to 1) communicate skillfully with patients using appropriate interviewing and patient education methods; 2) obtain thorough focused and general medical histories; 3) demonstrate proper use of instruments and techniques in the performance of physical examinations; 4) apply knowledge acquired in anatomy, physiology, and other courses to the assessment of patients; 5) detect and analyze abnormal interview and physical exam findings; 6) correlate essential historical data with exam findings; and 7) discuss pertinent available patient resources.

PA 543 - Patient Assessment III. 4 Credits.

Prereq., PA 514, PA 521, PA 522, PA 532, PA 533, PA 541, PA 542, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to patient assessment using an organ systems-based approach to history taking and the completion of physical examinations. It will specifically cover assessment components of male genitalia, female genitalia, female breast, and pregnant, pediatric, and geriatric patients, building on the knowledge gained from PA 541, Patient Assessment I, and PA 542, Patient Assessment II. The student will be given the opportunity to 1) communicate skillfully with patients using appropriate interviewing and patient education methods; 2) obtain thorough focused and general medical histories; 3) demonstrate proper use of instruments and techniques in the performance of physical examinations; 4) apply knowledge acquired in anatomy, physiology, and other courses to the assessment of patients; 5) detect and analyze abnormal interview and physical exam findings; 6) correlate essential historical data with exam findings; and 7) discuss pertinent available patient resources.

PA 544 - Clinical Medicine I. 4 Credits.

Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical medicine through an organ systems-based approach. It will specifically cover diseases found in dermatology, ophthalmology, otorhinolaryngology (ear, nose, and throat), and the cardiovascular, pulmonary, and gastrointestinal systems. For each disease/disorder covered, the student will be given the opportunity to: 1) understand biological processes and genetics in relation to pathologic disease; 2) recognize common and atypical presentations of disease; 3) develop a high quality list of differential diagnoses; 4) design an appropriate diagnostic approach; 5) interpret common radiological and laboratory studies needed for evaluation; 6) construct an appropriate treatment plan; and 7) recognize the impact of consulting other healthcare professionals in a patient's management as clinically indicated.

PA 545 - Clinical Medicine II. 4 Credits.

Prereq., PA 511, PA 512, PA 513, PA 531, PA 541, PA 544, and PA 550 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical medicine through an organ systems-based approach. It will specifically cover diseases found in the neurological, musculoskeletal, and endocrine systems as well as infectious diseases. For each disease/disorder covered, the student will be given the opportunity to: 1) understand biological processes and genetics in relation to pathologic disease; 2) recognize common and atypical presentations of disease; 3) develop a high quality list of differential diagnoses; 4) design an appropriate diagnostic approach; 5) interpret common radiological and laboratory studies needed for evaluation; 6) construct an appropriate treatment plan; and 7) recognize the impact of consulting other healthcare professionals in a patient's management as clinically indicated.

PA 546 - Clinical Medicine III. 4 Credits.

Prereq., PA 514, PA 521, PA 522, PA 533, PA 542, PA 544, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to introduce students to the broad scope of clinical medicine through an organ systems-based approach. It will specifically cover diseases found in the renal and genitourinary organ systems as well as cover diseases found in women's health, pediatrics, geriatrics, hematology, and rheumatology. For each disease/disorder covered, the student will be given the opportunity to: 1) understand biological processes and genetics in relation to pathologic disease; 2) recognize common and atypical presentations of disease; 3) develop a high quality list of differential diagnoses; 4) design an appropriate diagnostic approach; 5) interpret common radiological and laboratory studies needed for evaluation; 6) construct an appropriate treatment plan; and 7) recognize the impact of consulting other healthcare professionals in a patient's management as clinically indicated.

PA 550 - Anatomy & Physiology. 4 Credits.

Restricted to students in the Master of Physician Associate Studies program. This course is designed to acquire understanding of normal human clinical anatomy and physiology through an organ systems-based approach. This course will start with a review of histology and an in-depth coverage of the integumentary system. It will additionally examine the normal clinical anatomy and physiology associated with the head and neck to include eyes, ears, nose, and throat. It will progress through the organ systems to include cardiovascular, pulmonary, gastrointestinal, neurological, musculoskeletal, renal, and genitourinary systems. Lectures will be synchronous and include both anatomy and physiology content. Students will use programs that provide the opportunity to explore anatomy in a virtual setting. Experience in the cadaver lab will supplement this course.

PA 551 - Clinical Skills. 5 Credits.

Prereq., PA 514, PA 521, PA 522, PA 533, PA 542, and PA 545 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. This course is designed to prepare the student for supervised clinical practice by introducing procedures commonly performed in the clinical setting. The student will be given the opportunity to demonstrate the ability to: 1) understand the indications for performing specific clinical procedures; 2) perform the appropriate procedures; 3) counsel the patient regarding both procedures and management; 4) interpret data acquired from procedures in primary care and relevant subspecialty areas; 5) successfully perform resuscitative procedures under simulated clinical conditions; and 6) appreciate the significance of cultural and ethnic factors in patient management. This course is taught using a variety of instruction methods including textbooks, lectures, online videos, class discussion, instructor demonstrations, and small group work.

PA 595 - Supervised Clinical Practice Experience. 6 Credits.

(R-48) Prereq., PA 534, PA 543, PA 546, and PA 551 with a minimum grade of B-. Restricted to students in the Master of Physician Associate Studies program. In the supervised clinical practice experience (SCPE) setting, the student will apply the fundamental medical knowledge developed during the didactic year. All students in the cohort must complete eight (8) required supervised clinical practice experiences (SCPEs) or specialties.