NORTH CENTRAL COLLEGE
Master of Science in
Physician Assistant Studies

Master of Science in Physician Assistant Program Course Descriptions

Scientific Foundations of Medicine

MPAS 501: Foundations of Medical Science I (4 hours)

This inaugural course in a series of three courses is designed to develop a practical understanding of human anatomy, embryology histology, as well as normal physiology and the pathophysiologic concepts of diseases per organ system. Focus will be placed on clinically relevant aspects of human anatomy through an in-depth examination of anatomical structures and concomitant functions using formal lecture and laboratory. Students will utilize the Anatomage Table to virtually dissect whole body cadavers, visualize histological anatomy, and study case-based pathophysiology. Importance will be placed on anatomical structures and normal structural and functional variants, spatial relationships among structures, functional interactions of organ systems and correlate to case-based clinical diseases. The lecture and lab sections correlate with topics covered in Clinical Medicine and Infectious Disease. Students will work together in teams to collaboratively solve problems, demonstrate critical thinking skills, and use their knowledge of normal and pathologic anatomy to answer questions and solve practical and clinical problems. (B2.02 a, b, c, B2.03, B2.05).

Prerequisites: Admission in the physician assistant program

MPAS 502: Foundations of Medical Science II (2 hours)

This course is the second in a series of three courses designed to develop an advanced understanding of human anatomy and its application to medical imaging, as well as normal physiology and the pathophysiologic concepts of diseases per organ system. The focus will be on developing a working knowledge of basic medical physiology, pathophysiology and application of normal human gross, surface and functional anatomy to diagnostic radiology and surgical team-based learning. Building on Foundations of Medical Science I and Diagnostic Methods I, the student will be exposed to multiple case-based scenarios in the laboratory setting where they can utilize the Anatomage Table to strengthen their interpretation of medical imaging and surgical cases. The lecture and lab sections correlate with topics covered in Clinical Medicine, Diagnostic Methods and Patient Evaluation and Counseling. Students will work together collaboratively in teams to solve problems, demonstrate critical thinking skills, and use their knowledge of normal and pathologic anatomy and physiology to answer questions and solve clinical problems and interpret advanced medical images. (B2.02 a, b, c, B2.03, B2.05)

Prerequisites: Admission to the physician assistant program and successful completion of Foundations of Medical Science I.

MPAS 503: Foundations of Medical Science III (2 hours)

This course is the third in a series of three which are designed to develop an advanced understanding of human anatomy and its application to medical imaging, as well as normal physiology and the pathophysiologic concepts of diseases per organ system. Special focus will be on developing a working knowledge of basic medical physiology, pathophysiology and application of normal human gross, surface and functional anatomy to diagnostic radiology and surgical team-based learning. Building on

Foundations of Medical Science II and Diagnostic Methods II, the student will be exposed to multiple case-based scenarios in the laboratory setting where they can utilize the Anatomage Table to strengthen their interpretation of medical imaging and surgical cases. The lecture and lab sections correlate with topics covered in Clinical Medicine, Diagnostic Methods and Patient Evaluation and Counseling. Students will develop the ability to work together collaboratively in teams to solve problems, demonstrate critical thinking skills, and use their knowledge of normal and pathologic anatomy and physiology to answer questions, solve clinical problems and interpret advanced medical images. (B2.02 a, b, c, B2.03, B2.05)

Prerequisites: Admission to the physician assistant program and successful completion of Foundations of Medical Science I and II.

MPAS 505: Molecular Basis of Disease (3 hours)

The course introduces the concepts and principles critical to understanding the molecular mechanisms of human disease at the cellular level. A solid foundation regarding the scientific foundation of disease is necessary for full comprehension of the clinical medicine courses series. The underlying cellular principles that contribute to cellular structure and function as a unit of disease etiology, diagnosis, management, and prevention will be emphasized. Special focus will be given to molecular pathology, biochemistry, nutrition, genetics, immunology, virology and microbiology. (B2.02 b,c, e, B2.05, B2.04, B2.06b, B2.15) The pathophysiologic processes behind the cellular basis of disease will be highlighted.

Prerequisites: Admission in the physician assistant program

Health, Society, and Professionalism

MPAS 511: The PA, Patient, and Society I (2 hours)

The first offering of this three-course series will provide an overview of the role of the physician assistant (PA) as a member of the healthcare team, strategies for student and professional success, and population health with special focus on the complicated tapestry of health care delivery to our diverse society. The history of the profession, roles/responsibilities of the PA as well as other members of the healthcare team will be discussed. Student and professional wellness with emphasis on resiliency and identification/prevention of burnout will carry through all three semesters of this course. Healthcare delivery systems and policy, bias, the business of healthcare, as well as medicolegal issues throughout the lifespan are other key topics that will be highlighted. Lifestyle medicine as a tool for disease prevention will be introduced in this semester and will be covered more thoroughly in future sections of this course, building on itself. Please refer to below for the list of ARC-PA 5th Standards that are addressed in this course.

Course Structure: This first course in the series is primarily classroom learning in a structured learning environment utilizing lectures, panel discussions, group work, time for self-reflection, and other active learning experiences.

MPAS 512: The PA, Patient, and Society II (2 hours)

The second of the three-course series is designed to expand upon the role of the physician assistant (PA) as a member of the healthcare team, discuss strategies for professional success, highlight pre-, intra-, and post-operative care of certain populations/conditions and build on knowledge related to Lifestyle Medicine. Select readings, guest lecturers, and active learning assignments will allow for student reflection and reinforce concepts discussed in this course. (B2.02 b, B2.04, B2.05, B2.06 a-f, B2.07 e,f, B2.08 a, b, c, e, B2.10 a, B2.11 a-e, g, B2.12 a-c, B2.14a, c, B2.15 a-d , B2.17 f, B2.18, B2.19 a-c, B2.20 a-b)

Prerequisites: Admission to the physician assistant program and successful completion of PA, Patient and Society I.

MPAS 513: The PA, Patient, and Society III (2 hours)

The course is the final course in a sequence of three courses that function to onboard the physician assistant student into the PA profession, focusing on topics aimed to transition the PA student into their clinical year. It will review and expand upon professionalism, wellness, and basic documentation, coding, and billing. The course will also introduce concepts such as medical error, patient safety, quality improvement, malpractice and risk management. The principles of Medical Ethics will be covered, and the Lifestyle Medicine series will be completed. Patients' response to stress, injury, and illness along with coping strategies and substance use disorders will also be covered. Finally, Special Topics will also include Occupational Medicine and Department of Transportation examinations and Correctional Medicine. (B2.04, B2.06a-f, B2.10a-c, b2.11d-f, B2.12.a-c, B2.14a-b, B2.15a-d, B2.16a-d, B2.17a, c-d, B2.19c, B2.20a-b)

Prerequisites: Admission to the physician assistant program and successful completion of PA, Patient and Society II.

MPAS 611: Medical Leadership I (1 hour)

This professional development course, delivered asynchronously during the clinical year, supports physician assistant students in developing as effective, ethical, and collaborative leaders in healthcare. Students will explore foundational leadership principles, assess their personal leadership strengths, and apply strategies to enhance team-based communication, decision-making, and systems-based thinking. Topics such as inclusive leadership, interprofessional collaboration, and ethical decision-making are examined through case-based discussion, self-assessment tools, and structured frameworks. Learning experiences include asynchronous lectures, reflective activities, low-stakes assessments, and discussion prompts tied to clinical practice. (B2.04, B2.05, B2.10a-c, B2.12a-c, B2.14c-d, B2.15 b-d, B2.16a-d, B2.18, B2.19a-c)

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 612: Medical Leadership II (1 hour)

This advanced professional development course builds upon concepts from Medical Leadership I, emphasizing applied leadership in clinical, administrative, and interprofessional settings. Through case-based reflection, engagement with PA leaders, and analysis of current healthcare challenges, students will explore how leadership, ethics, and advocacy shape the PA profession and impact patient care.

Topics include fiscal management, structural equity, healthcare quality improvement, and the evolving roles of PAs in diverse settings such as rural medicine, telehealth, and global health. (B2.04, B2.06a-f, B2.10a-c, B2.13e, B2.14a-d, B2.15a-d, B2.16a-d, B2.17c-g, B2.18)

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

Clinical Foundations of Medicine

MPAS 525: Evidence Based Medicine I (2 hours)
This course will focus on the basic concepts of research design and biostatistics as they apply to medical research. Students will begin to form a basis for sound, evidence-based, clinical decision making. Core elements of evidence-based medicine will be presented including developing clinical questions, searching and appraising the medical literature, and applying evidence appropriately to the care of an individual patient. Basic descriptive and inferential statistics will be discussed. Case vignettes will be used to assist in the critique of systematic reviews and treatment guidelines. Lectures and active learning activities will encourage the development of professional oral and written communication skills in preparation for Clinical Decision Making and Evidence-Based Medicine II. Students will choose an area of scholarly concentration to begin work on their Master's capstone project based on three research potential tracks: Medical Education, Clinical Case Reports, or Evidence Based Medicine. The Evidence-Based Medicine track will be based solely in the literature, whereas the clinical and medical education will be both scholarly and experiential. (B2.04, B2.05, B2.13 a.-e., B2.18, B2.19a.-c.)
Prerequisites*:* Admission in the physician assistant program

MPAS 626: Evidence Based Medicine II and Applied Research (1 hour)
Prior to and concurrent with the starting of Supervised Clinical Practice Experiences (SCPEs), students will build on foundational principles covered in Evidence Based Medicine I and begin to research their well formulated research question from Evidence Based Medicine I. Important milestones will be mapped to assure interaction between the student, their Senior Capstone advisor/director, and course director for the capstone master's project. The course is designed for students to take on more professional responsibility in adapting to and applying the core elements of evidence-based medicine to the student's area of scholarly concentration. Case-based studies will be continued to be reviewed in large group settings, that are part of the Capstone group's research articles, to solidify concepts taught in Evidence-Based Medicine I and Bioethics. (B2.04, B2.05, B2.13 a-e, 2.18, B2.19 a.-c.)

Prerequisites: Successful completion of didactic year

MPAS 627: Evidence Based Medicine III and Applied Research (1 hour)
Prior to and concurrent with the starting of Supervised Clinical Practice Experiences (SCPEs), students will build on foundational principles covered in Evidence Based Medicine I and begin to research their well formulated research question from Evidence Based Medicine I. Important milestones will be

mapped to assure interaction between the student, their Senior Capstone advisor/director, and course director for the capstone master's project. The course is designed for students to take on more professional responsibility in adapting to and applying the core elements of evidence-based medicine to the student's area of scholarly concentration. Case-based studies will be continued to be reviewed in large group settings, that are part of the Capstone group's research articles, to solidify concepts taught in Evidence-Based Medicine I and Bioethics. (B2.04, B2.05, B2.13 a-e, 2.18, B2.19 a.-c.)

Prerequisites: Successful completion of MSPAS 626: Evidence Based Medicine III and Applied Research

MPAS 515: Narrative Medicine and Patient-Centered Communication (2 hours)

Communication with patients is a core clinical skill for the practice of medicine and requires specific tasks and observable behaviors that include obtaining a medical history, explaining a diagnosis and prognosis, giving therapeutic instructions and information, and providing counseling. This course will provide instruction on how to conduct, document, and present a focused and complete medical history across the lifespan. It will define the rules, norms, and ethics governing the collection and documentation of medical information and describe the structure and function of the medical history. Instruction will focus on developing professional rapport, collaboration, and communication skills among patients, their support systems, and other healthcare professionals while bringing awareness and sensitivity to cultural issues and diverse patient populations. It will also introduce motivational interviewing techniques that can be used to provide patient education and influence collaborative decision making for health and wellbeing. This course will incorporate the use of multiple practice opportunities and personal patient stories to develop the communication and listening skills important for success. (B2.04, B2.06 a-f, B2.07 a, f, B2.08 a, b, e B2.09, B2.12 a,b, B2.14 b, B2.17 c, B2.18, B2.19 a-c)

Prerequisites: Admission to the physician assistant program

MPAS 561 Patient Evaluation and Counseling in Primary Care I (2 hours)

The first in a two-course series, this is a foundational course that equips physician assistant students with essential skills in physical examination, clinical reasoning, and patient communication. Students will learn to perform comprehensive and focused physical exams, interpret clinical findings, and generate differential diagnoses grounded in patient history and exam results. The course also emphasizes the development of effective communication and counseling strategies to promote shared decision-making and interprofessional care. (B2.02 a-c, B2.03, B2.04, B2.05, B2.07b-c, B2.08a, B2.14b, B2.19a-c)

Prerequisites: Admission to the physician assistant program and successful completion of Narrative Based Medicine.

MPAS 562: Patient Evaluation and Counseling in Primary Care II (2 hours)

The second in a two-course series, this is a foundational course that equips physician assistant students with essential skills in physical examination, clinical reasoning, and patient communication. Students will learn to perform comprehensive and focused physical exams, interpret clinical findings, and generate differential diagnoses grounded in patient history and exam results. The course also emphasizes the development of effective communication and counseling strategies to promote shared decision-making

and interprofessional care. (B2.02 a-c, B2.03, B2.04, B2.05, B2.07b-c, B2.08a, B2.14b, B2.19a-c)

Prerequisites: Admission to the physician assistant program and successful completion of MPAS 561 Patient Evaluation and Counseling I.

MPAS 521: Clinical Therapeutics I (3 hours)
Clinical therapeutics I is first in a series of four courses designed to develop foundational knowledge of the principles and practices of pharmacology and pharmacotherapeutics. This course is delivered synchronously with Clinical Medicine and Infectious Disease I and will cover major principles of pharmacodynamics, pharmacokinetics, and pharmacogenomics. A framework for understanding the major classifications of therapeutic agents will be introduced including: mechanism of action, dynamic and kinetic properties, therapeutic use, drug-drug, drug-disease and drug-food interactions, side effects, and toxicity. The principles of patient safety (specifically related to altered pharmacodynamic/kinetic/genetic properties related to age, ethnicity) and cost/benefit of pharmacological interventions will be reviewed with each drug class and with commonly prescribed medications in primary care. Areas of disease-specific pharmacologic clinical applications will follow a systems-based approach. Particular emphasis will be placed on interpretation of the medical literature using principles of evidence-based medicine in pharmacologic management of disease. (B2.02d–e, B2.05, B2.06a–b,d–f, B2.07c,e–f, B2.08a–c, B2.12a–c, B2.16a–b,d, B2.17c–f)

Course Structure: This first course in the series is primarily classroom learning in a structured learning environment utilizing electronic media, with an introduction to team and problem-based learning as appropriate.

MPAS 522: Clinical Therapeutics II (3 hours)
Clinical therapeutics II is the second in a series of four courses designed to develop foundational knowledge of the principles and practices of pharmacology and pharmacotherapeutics. This course is delivered synchronously with Clinical Medicine and Infectious Disease II-III and will cover major principles of pharmacodynamics, pharmacokinetics, and pharmacogenomics. A framework for understanding the major classifications of therapeutic agents will be introduced including: their mechanisms of action, dynamic and kinetic properties, therapeutic uses, drug-drug, drug-disease and drug-food interactions, side effects, and toxicities. The principles of patient safety, specifically related to altered pharmacodynamic/kinetic/genetic properties related to age, ethnicity as well as cost/benefit of pharmacological interventions will be reviewed with each drug class and with commonly prescribed medications in primary care. Areas of disease specific pharmacologic clinical applications will follow the systems-based approach. Particular emphasis will be placed on interpretation of the medical literature using principles of evidence-based medicine in pharmacologic management of disease. (B2.02d–e, B2.05, B2.06a–b, e–f, B2.07c,e–f, B2.08a–c, B2.12a–b, B2.16a–b, d)

Prerequisites: Admission to the physician assistant program and successful completion of Clinical Therapeutics I.

MPAS 523: Clinical Therapeutics III (3 hours)
Clinical therapeutics III is the third in a series of four courses designed to develop foundational

knowledge of the principles and practices of pharmacology and pharmacotherapeutics. This course is delivered synchronously with Clinical Medicine and Infectious Disease IV-V and will cover major principles of pharmacodynamics, pharmacokinetics, and pharmacogenomics. A framework for understanding the major classifications of therapeutic agents will be introduced including: their molecular mechanisms of action, dynamic and kinetic properties, therapeutic uses, drug-drug, drug-disease and drug-food interactions, side effects, and toxicities. The principles of patient safety, specifically related to altered pharmacodynamic/kinetic/genetic properties related to age, ethnicity as well as cost/benefit of pharmacological interventions will be reviewed with each drug class and with commonly prescribed medications in primary care. Areas of disease specific pharmacologic clinical applications will follow the systems-based approach. Particular emphasis will be placed on interpretation of the medical literature using principles of evidence-based medicine in pharmacologic management of disease. (B2.02d-e, B2.05, B2.06a-b,f, B2.07c,e-f, B2.08a-b, B2.12a-b, B2.16a-b,d)

Prerequisites: Admission to the physician assistant program and successful completion of Clinical Therapeutics I & II

MPAS 624: Clinical Therapeutics IV (1 hour)

Clinical therapeutics IV is the fourth in a series of four courses designed to develop the foundational knowledge about the principles and practices of pharmacology and pharmacotherapeutics and is delivered synchronously with the Bridge Course that prepares students for their clinical year. This course will build on Clinical Therapeutics I-III with special focus on toxicology, case-based review of common pharmacotherapeutics used in specific clinical rotations, as well as practice with pharmacologic patient counseling and inpatient/outpatient prescribing. The principles of patient safety, specifically related to altered pharmacodynamic/kinetic/genetic properties related to age, ethnicity as well as cost/benefit of pharmacological interventions will be reviewed. Particular emphasis will be placed on the importance of continuing medical education as a prescriber, cost/benefit of pharmacological interventions and interpretation of the medical literature using principles of evidence-based medicine in pharmacologic management of disease. (B2.02d, B2.04, B2.05, B2.06a-c,f, B2.07c,e-f, B2.08a-b,e, B2.12a-c, B2.16a-d)

Prerequisites: Admission to the physician assistant program and successful completion of didactic year

MPAS 531: Clinical Medicine & Infectious Disease I (4 hours)

This course is the first in a five-course series on Clinical Medicine and Infectious Disease. Students will develop and apply clinical knowledge related to cardiovascular and pulmonary diseases. Emphasis is placed on clinical reasoning through integration of anatomy, physiology, and pathophysiology; development of differential diagnoses; diagnostic evaluation; and evidence-based treatment planning. Students will also gain experience in evaluating urgent and emergent presentations, documenting clinical encounters, collaborating interprofessionally, and promoting patient-centered, preventive care. (B2.02a-e, B2.03, B2.04, B2.05, B2.06a–f, B2.07a–f, B2.08a–b, B2.09, B2.10a–c, B2.12a–c, B2.13a-e, B2.14a–d, B2.15a–d)

Prerequisites: Admission in the physician assistant program.

MPAS 532: Clinical Medicine & Infectious Disease II (4 hours)

This course is the second in a three-course series on Clinical Medicine and Infectious Disease. Students will develop and apply clinical knowledge related to cardiovascular and pulmonary diseases. Emphasis is placed on clinical reasoning through integration of anatomy, physiology, and pathophysiology; development of differential diagnoses; diagnostic evaluation; and evidence-based treatment planning. Students will also gain experience in evaluating urgent and emergent presentations, documenting clinical encounters, collaborating interprofessionally, and promoting patient-centered, preventive care. (B2.02a-e, B2.03, B2.04, B2.05, B2.06a–f, B2.07a–f, B2.08a–c, B2.09, B2.10a–b, B2.12a–c, B2.13e, B2.14a–b, B2.15a–d, B2.19c)

Prerequisites: Admission in the physician assistant program and successful completion of MSPAS 531-Clinical Medicine & Infectious Disease I.

MPAS 533: Clinical Medicine & Infectious Disease III (4 hours)
Clinical Medicine and Infectious Disease III is the third course in a sequence of five courses encompassing the principles and practices of clinical medicine. These courses are structured to provide a systems-based intensive study of human disease and disorders across the lifespan focusing on epidemiology, etiology, clinical manifestations, diagnosis, clinical interventions, medical and surgical treatment, prevention, and prognosis. Students will integrate and apply knowledge obtained in the Foundational Medical Sciences, Clinical Therapeutics, Patient Evaluation, Clinical Decision Making and Counseling and Diagnostic Methods to these particular areas of study. (B2.02 a-e, B2.03, B2.04, B2.05, B2.06 a-f, B2. 08 a, b, B2.09, B2.11 b-e, g, B2.14 a, b)

Prerequisites: Admission into the physician assistant program and successful completion of MSPAS 532-Clinical Medicine & Infectious Disease II.

MPAS 534: Clinical Medicine & Infectious Disease IV (4 hours)
This fourth course in the Clinical Medicine and Infectious Disease series builds on foundational knowledge from prior courses. Students will develop and apply clinical knowledge related to dermatologic, gastrointestinal, and musculoskeletal/rheumatologic diseases. Emphasis is placed on clinical reasoning through integration of anatomy, physiology, and pathophysiology; development of differential diagnoses; diagnostic evaluation; and evidence-based treatment planning. Students will also gain experience in evaluating urgent and chronic presentations, documenting clinical encounters, collaborating interprofessionally, and promoting patient-centered, preventive care. (B2.02, B2.03, B2.04, B2.05, B2.06a, b, e, f, B2.07, B2.08a–b, B2.09, B2.10a–b, B2.11c–f, B2.12a–c, B2.13e, B2.14a–b, B2.15a–d)

Prerequisites: Admission in the physician assistant program and successful completion of MSPAS 533-Clinical Medicine & Infectious Disease III.

MPAS 535: Clinical Medicine & Infectious Disease V (4 hours)
Clinical Medicine and Infectious Disease V is the final course in a sequence of five courses encompassing the principles and practices of clinical medicine. These courses are structured to provide a systems-based intensive study of human disease and disorders across the lifespan focusing on epidemiology, etiology, clinical manifestations, diagnosis, clinical interventions, medical and surgical treatment,

prevention, and prognosis. Topics specific to Neurology and Behavioral Health will be the focus, as well as an introduction to specialty topics in geriatrics, emergency medicine, and surgery. Students will integrate and apply knowledge obtained in the Foundational Medical Sciences, Clinical Therapeutics, Patient Evaluation, Clinical Decision Making and Counseling and Diagnostic Methods to these particular areas of study. (B2.02 ab, c, e, B2.03, B2.04, B2.05, B2.06 a, f, B2.07 c, d, e, f, B2.08 a, b, d, B2.09, B2.11 a- g, B2.12 a, b, cm B2.14 a, b

Prerequisites: Admission into the physician assistant program and successful completion of MSPAS 534-Clinical Medicine & Infectious Disease IV.

MPAS 551: Clinical Decision Making I (3 hours)
This course is the first of two team-taught classes that will review material presented in Clinical Medicine and Infectious Disease in a case-based setting providing students with a foundation to approach diagnostic reasoning, formulating problem lists and differential diagnoses, self-directed learning and communication in written and oral forms. Students will work in groups of 5-8 learners with a facilitator where they will encounter a clinical case that builds on material presented in Clinical medicine I-III (Cardiovascular, Pulmonary, Renal, Endocrine and Reproductive Health) using both problem-based learning and simulation pedagogy. In addition to working collaboratively within the PA space, students will also participate in interprofessional team simulations. (B2.02a-e, B2.03, B2.04, B2.05, B2.06a-f, B2.07a-f, B2.08a-b, B2.09, B2.10a-c, B2.11c-d, B2.12a-c, B2.13e, B2.14b, B2.15a, B2.19a-c)

Prerequisites: Admission to the physician assistant program and successful completion of Clinical Medicine I.

MPAS 552: Clinical Decision Making II (3 hours)
This course is the second of two team-taught classes that will timely review material presented in Clinical Medicine and Infectious Disease in a case-base setting providing students a foundation to approach to diagnostic reasoning, formulating problem lists and differential diagnoses, self-directed learning and communication in written and oral forms. Students will work in groups of 6-8 learners with a facilitator where they will encounter a clinical case that correlate to material presented in Clinical Medicine IV and V (dermatology, Musculoskeletal, Gastroenterology, Neurology and Behavioral Health) in small team-based groups using both problem-based learning and simulation pedagogy. In addition to working collaborative within the PA space, students will participate in interprofessional team simulations. (B2.02a-e, B2.03, B2.04, B2.05, B2.06a-f, B2.07a-f, B2.08a-b, B2.09, B2.10a-c, B2.11c-d, B2.12a-c, B2.13e, B2.14a-d, B2.15a, B2.19a-c)

Prerequisites: Admission to the physician assistant program and successful completion of Clinical Decision Making I.

MPAS 541: Diagnostic Methods I (2 hours)
Diagnostic Methods I represent the first in a three-course series designed to develop a functional understanding of the clinical decision making involved in the selection and interpretation of genetic testing and diagnostic imaging. It is designed to complement the content covered in Clinical Medicine and Infectious Disease, Foundations of Medical Science I, and the Molecular Basis of Disease. Course

content highlights selected genetic testing and radiologic imaging procedures, with emphasis on effective utilization in the diagnosis and management of disease states. The genetic testing module will explore standard testing, personalized medicine, and ethical issues raised. In the radiology module, the students will be introduced to the basics of diagnostic imaging, learn to select, interpret, and communicate normal findings on musculoskeletal films, Chest X-ray, CT and MRI. Special focus will be placed on patient safety and avoidance of medical error in medical imaging. Several clinical laboratories will be employed to teach the technical skills required vascular access, foreign body removal and airway stabilization. (B2.02a-c, B2.03, B2.04, B2.05, B2.06a-f, B2.07d, B2.08a-b, B2.09, B2.10a-c, B2.12a-c, B2.13e, B2.14a-d, B2.15a-d)

Course Structure: This first course in the series is primarily classroom learning in a structured learning environment utilizing electronic media, with an introduction to team and problem-based learning as appropriate.

MPAS 542: Diagnostic Methods II (2 hours)

Diagnostic Methods II represents the second offering in a three-course series designed to develop a functional understanding of the clinical decision making involved in the selection and interpretation of basic diagnostic laboratory testing. It is designed to complement the content covered in Clinical Medicine and Infectious Disease II & III, Foundation of Medical Science II, Clinical Therapeutics II and Patient Evaluation and Counseling II. Students will learn to select, interpret, diagnose, communicate normal and abnormal results and recommend appropriate management options. Special focus will be placed on understanding pretest probability, sensitivity and specificity of various tests and how that influences management. Several clinical laboratories will be employed to teach the technical skills required for diagnosis and management of cardiovascular, pulmonary, renal and reproductive systems, such as ECG interpretation, arterial blood gas analysis, and further focus radiologic imaging (B2.02a-e, B2.03, B2.04, B2.05, B2.06 a-f, B2.07d, B2.08a-b, B2.09, B2.10a-c, B2.12a-c, B2.13e, B2.14a-d, B2.15a-d, B2.16 a-c).

Prerequisites: Admission to the physician assistant program and successful completion of Diagnostic Methods I.

MPAS 543: Diagnostic Methods III (2 hours)

Diagnostic Methods III is the final course in a three-course series designed to develop a functional understanding of the clinical decision making involved in the selection and interpretation of necessary diagnostic laboratory testing. It is designed to complement the content covered in Clinical Medicine and Infectious Disease IV & V, Foundations of Medical Science III, Clinical Therapeutics III and Patient Evaluation and Counseling III. Students will review and select, interpret, diagnose, communicate normal and abnormal results, and recommend appropriate management options. Focus will be placed on clinical procedures and technical skills required to obtain advanced diagnostic studies. Several clinical laboratories provide instruction in the technical skills and procedures involved in the acquisition of these studies, such as further focus on radiologic imaging, upper and lower extremity fracture stabilization joint aspiration, lumbar puncture, nasogastric tube insertion, and introduction to dermatologic and surgical techniques. (B2.02a-c, B2.03, B2.04, B2.05, B2.06a-f, B2.07d, B2.08a-b, B2.09, B2.10a-c, B2.12a-c, B2.13e, B2.14a-d, B2.15a-d, B2.16a-c)

Prerequisites: Admission to the physician assistant program and successful completion of Diagnostic Methods II.

MPAS 600: Bridge Course:
This course functions as a transition from the didactic year to Supervised Clinical Practice Experiences (SCPEs). Topics covered include preceptor expectations, electronic medical records training, professionalism, PACKRAT I and ACLS/PALS certification. A focus on training necessary for the clinical rotations, including knowledge related to blood borne pathogens, patient privacy, and discipline-specific didactic and skills training. Student safety at clinical sites as well as the Occupational Safety and Health Administration (OSHA) and the Health Insurance Portability and Accountability Act (HIPAA) training, will be highlighted. A review of systems-based practices that improve healthcare safety, and an in-depth discussion of program requirements for successful progression through clinical education experiences. (B2.03, B2.04, B2.05, B2.08 a-e, B2.09, B2.10, B2.12b, B2.15a, B2.16 a-d, B2.19 a-c, B2.20 a-b)

Prerequisite: Successful completion or remediation of the didactic year course work

Supervised Clinical Preceptor Experiences (SCPEs) YEAR TWO

MPAS 630: Emergency Medicine (6 hours)
This six-week clinical course provides the physician assistant student with experience in acute and emergent evaluation and management of patients in the *Emergency Department* setting. The *Emergency Medicine* rotation will provide physician assistant students with supervised clinical practice experiences by instructional faculty that consists primarily of board-certified physicians, PA-Cs, and other licensed health care providers that is focused in *acute* and *emergent* care to *adult and elderly* patients within the emergency department setting.
The course goals of the Emergency Department clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, and clinical reasoning, problem-solving abilities while addressing health care disparities, and engaging in counseling for healthier lifestyle choices that was attained throughout the didactic curricular component.
Although the clinical experiences will be unique to each student, they will participate and familiarize themselves with universally common clinical skill sets which include: how to collaborate with members of the health care team, history and physical exams, creating a differential diagnosis, ordering and interpreting appropriate diagnostic studies, obtaining appropriate consultation of specialist care for patients seeking emergency care, and management of commonly encountered injuries and illnesses in the Emergency environment.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 635: Internal Medicine (6 hours)
This six-week clinical course provides the physician assistant student with providing care to *Internal Medicine* patients in an i*npatient and/or outpatient* setting. *The Internal Medicine* rotation will provide physician assistant students with supervised clinical practice experiences by instructional faculty that

consists primarily of board-certified physicians, PA-Cs, and other licensed health care providers that is focused in *preventative, chronic, and rehabilitative* evaluations of *adult and elderly* patients within inpatient and/or outpatient settings.
The clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, and clinical reasoning, problem-solving abilities, addressing health care disparities, and counseling for healthier lifestyle choices that can been attained at the completion of this curricular component.
Although the clinical experiences will be unique to each student, they will participate and familiarize themselves with universally common clinical skill sets which include: how to collaborate with members of the health care team, history and physical exams, creating a differential diagnosis, ordering and interpreting appropriate diagnostic studies, obtaining appropriate consultation of specialist care for patients with new and chronic diseases, and management of commonly encountered diagnoses in the Internal Medicine environment.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 640: Family Medicine (6 hours)
This six-week clinical course provides the physician assistant student with providing care to patients in *Family Medicine* in an *outpatient* setting. The *Family Medicine* rotation will provide physician assistant students with supervised clinical practice experiences by instructional faculty that consists primarily of board-certified physicians, PA-Cs, and other licensed health care providers that is focused in *Family Medicine* care with an interprofessional team in the *preventative, acute and chronic* evaluations of *Family Medicine* patients within *outpatient* settings.

The course goals of the clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, clinical reasoning, problem-solving skills specific to the care of *infants, children, adolescent, adult, and elderly* while addressing health care disparities and engaging in the counseling for healthier lifestyle choices knowledge that was attained throughout the didactic curricular component.

Although the clinical experiences will be unique to each student, they will participate and familiarize themselves with universally common clinical skill sets which include: how to collaborate with members of the health care team, history and physical exams, creating a differential diagnosis, ordering and interpreting appropriate diagnostic studies, obtaining appropriate consultation of specialist care for patients with new and chronic diseases, disease prevention, and management of commonly encountered diagnoses in the *Family Medicine* environment.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 645: Women's Health (6 hours)
This six-week clinical course provides the physician assistant student with providing care to women's health patients to include prenatal and gynecological care in an outpatient setting. The Women's Health rotation will provide physician assistant students with supervised clinical practice experiences by instructional faculty that consists primarily of board-certified physicians, PA-Cs, and other licensed health care providers that is focused in prenatal, postnatal, and gynecological interprofessional team-

care in the *acute, preventive, and chronic* evaluations of *adolescent, adult, and elderly women* patients within outpatient settings.

The course goals of the clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, clinical reasoning, problem-solving skills specific to the care of women while addressing health care disparities and engaging in the counseling for healthier lifestyle choices knowledge that was attained throughout the didactic curricular component.

Although the clinical experiences will be unique to each student, they will participate and familiarize themselves with universally common clinical skill sets which include: how to collaborate with members of the health care team, history and physical exams, creating a differential diagnosis, ordering and interpreting appropriate diagnostic studies, obtaining appropriate consultation of specialist care for patients with new and chronic diseases, disease prevention, and management of commonly encountered diagnoses in the Women's Health environment.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 650: Pediatrics (6 hours)
This six-week clinical course provides the physician assistant student with providing care to pediatric patients in an inpatient or outpatient setting. The Pediatric rotation will provide physician assistant students with supervised clinical practice experiences by instructional faculty that consists primarily of board-certified physicians, PA-Cs, and other licensed health care providers that is focused in pediatric care with an interprofessional team in the *preventative, acute, and chronic* evaluations of *pediatric* patients within inpatient or outpatient settings.

The course goals of the clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, clinical reasoning, problem-solving skills specific to the care of children while addressing health care disparities and engaging in the counseling for healthier lifestyle choices knowledge that was attained throughout the didactic curricular component.

Although the clinical experiences will be unique to each student, they will participate and familiarize themselves with universally common clinical skill sets which include: how to collaborate with members of the health care team, history and physical exams, creating a differential diagnosis, ordering and interpreting appropriate diagnostic studies, obtaining appropriate consultation of specialist care for patients with new and chronic diseases, disease prevention, and management of commonly encountered diagnoses in the pediatric environment.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 655: Surgery (6 hours)
This six-week clinical course provides the physician assistant student with providing care to *Surgical* patients in an *operating room* setting. The *Surgical* rotation will provide physician assistant students with supervised clinical practice experiences by instructional faculty that consists primarily of board-

certified physicians, PA-Cs, and other licensed health care providers that is focused in *surgical* care with an interprofessional team in the *emergent, acute, and chronic* evaluations of *surgical* patients within *pre-operative, intra-operative, and post-operative* settings.

The course goals of the clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, clinical reasoning, problem-solving skills specific to the care of *adults and elderly* while addressing health care disparities and engaging in the counseling for healthier lifestyle choices knowledge that was attained throughout the didactic curricular component.
Although the clinical experiences will be unique to each student, they will participate and familiarize themselves with universally common clinical skill sets which include: how to collaborate with members of the health care team, history and physical exams, creating a differential diagnosis, ordering and interpreting appropriate diagnostic studies, obtaining appropriate consultation of specialist care for patients with new and chronic diseases, disease prevention, and management of commonly encountered diagnoses in the *surgical* environment.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 660: Behavioral Health (6 hours)
This six-week clinical course provides the physician assistant student with providing care to patients with *Behavioral Health Disorders* in an *inpatient and/or outpatient* setting. The *Behavioral Health* rotation will provide physician assistant students with supervised clinical practice experiences by instructional faculty that consists primarily of board-certified physicians, PA-Cs, and other licensed health care providers that is focused in *Behavioral Health* care with an interprofessional team in the *preventative, acute and chronic* evaluations of *Behavioral Health* patients within *inpatient and/or outpatient* settings.

The course goals of the clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, clinical reasoning, problem-solving skills specific to the care of *children, adolescent, adult, and elderly* while addressing health care disparities and engaging in the counseling for healthier lifestyle choices knowledge that was attained throughout the didactic curricular component.

Although the clinical experiences will be unique to each student, they will participate and familiarize themselves with universally common clinical skill sets which include: how to collaborate with members of the health care team, history and physical exams, creating a differential diagnosis, ordering and interpreting appropriate diagnostic studies, obtaining appropriate consultation of specialist care for patients with new and chronic diseases, disease prevention, and management of commonly encountered diagnoses in the *Behavioral Health* environment.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 665: Elective
The four-week clinical elective course will provide the physician assistant student the ability to gain clinical experience in an area of interest. The student may choose from a range of specialty rotations in such as urgent care, family medicine, pediatrics, internal medicine or various surgical subspecialties.

The goal of the elective clinical experience will afford the students an opportunity to expand on their medical knowledge, interpersonal communication, clinical and technical skills, professional behaviors, clinical reasoning, problem-solving skills within an inpatient, outpatient or operating room setting, specific to the care medical pathologies of student interest under instructional faculty consisting primarily of practicing physicians and physician assistants who are board certified in their area of instruction, NCCPA certified PA's or other license health care providers qualified in their area of instruction.

The student will obtain more intentional study in primary care or become familiar with conditions treatable by medical and surgical specialists in the field, thereby allowing for appropriate referral. Students may also desire to use this elective to investigate what gainful employment looks like in a supportive role as they consider future job opportunities. The program reserves the right to use this elective slot for an additional supervised experience should the student require core-rotation remediation. There are no current international elective rotations.

Prerequisites: Admission to the physician assistant program and successful completion of didactic year.

MPAS 695: Senior Capstone Seminar (3 hours)

The Senior Capstone Seminar serves as the culminating experience of the Master of Physician Assistant Studies (MPAS) program. This course is designed to evaluate each student's achievement of program-defined competencies across the seven core domains: Medical Knowledge (MK), Interpersonal and Communication Skills (ICS), Clinical Technical Skills (CTS), Clinical Reasoning and Problem-Solving Skills (CRPS), Interprofessional Collaborative Practice and Professional Behaviors (PB), Health Care Law, Finance, and Systems (HCFS), and Lifestyle Medicine (LM).

Students will complete summative assessments to demonstrate readiness for entry into clinical practice. To further support this transition, the course provides advanced professional coaching in CV/resume writing, licensure, DEA registration, and job search preparation. Students will also engage with practicing physician assistants on topics such as PA fellowships, continuing medical education, and contract review to help them enter the workforce with confidence.
In addition, students will present their final Capstone Project—developed through both individual and collaborative efforts—to demonstrate competence in evidence-based practice, professional development, and effective communication. (B2.02, B2.04, B2.10b–c, B2.12a–c, B2.14c, d, B2.16d, B2.17a, c, d, f, B2.18, B2.19c, B4.01a-b, B4.03a-e)

Prerequisites: Successful completion or remediation of the clinical year coursework.