



# M.S. in Physician Assistant Studies

## Course Descriptions

### **DIDACTIC CURRICULUM**

#### Foundations in Medicine I

This is the first in a series of courses designed to develop an understanding of normal physiology, genetics and pathologic concepts of diseases in organ systems. The physiology component covers normal physiology for human organ systems. The genetics component introduces the concepts of patterns of inheritance, genetic abnormalities and molecular mechanisms of health and disease. The pathology component explores the etiology of organic and systemic disease.

#### Foundations in Medicine II

This is the second in a series of courses designed to continue the study of normal physiology, genetics, and pathologic concepts of diseases in organ systems. The physiology component covers normal physiology for human organ systems. The genetics component introduces the concepts of patterns of inheritance, genetic abnormalities and molecular mechanisms of health and disease. The pathology component explores the etiology of organic and systemic disease.

#### Human Anatomy

Using an organ systems-based approach, this course is designed to develop an understanding of the structure and function of the human body. Lectures are complemented by laboratory sessions that utilize state-of-the-art computer-based learning with virtual imaging of cadavers. Upon completion of this course, students will be able to identify normal anatomic structures, recognize abnormal anatomy, and determine the clinical implications of pathologic anatomy.

#### Patient Evaluation I

This is the first in a series of courses designed to develop the knowledge and skills required to obtain and record the complete medical history and perform the physical exam. A focus is placed on development of proper techniques utilized in the acquisition of an accurate, focused, and comprehensive historical and physical examination. Students learn to utilize accurate medical terminology in the documentation of historical and physical exam findings. Via formal lectures and laboratories, this course also provides an overview of the medical record as well as fosters the development of writing and organizational skills used in medical documentation. Additionally, it develops student oral presentation skills that will be utilized in clinical practice. Skills will be developed through formal lectures, structured laboratory exercises and supervised community-based clinical practice experiences.

## Patient Evaluation II

This second in a series of courses designed to continue the development of the knowledge and skills required to obtain and record the complete medical history and perform the physical exam. A focus is placed on development of proper techniques utilized in the acquisition of an accurate, focused, and comprehensive historical and physical examination. Students learn to utilize accurate medical terminology in the documentation of historical and physical exam findings. Via formal lectures and laboratories, this course also provides an overview of the medical record as well as emphasizes the development of writing and organizational skills used in medical documentation. Additionally, it develops student oral presentation skills that will be utilized in clinical practice. Skills will be developed through formal lectures, structured laboratory exercises and supervised community-based clinical practice experiences.

## Diagnostic Methods I

This is the first in a series of courses designed to develop a functional understanding of the appropriate uses and interpretations of clinical diagnostic laboratory and radiographic testing. Students learn to select, interpret and evaluate clinical laboratory, imaging and other diagnostic tests used for diagnosing and managing patients' needs. Students learn to create comprehensive and thoughtful differential diagnoses based on diagnostic findings. Skills will be developed through formal lecture as well as structured laboratory exercises.

## Diagnostic Methods II

This is the second in a series of courses designed to continue the development of the functional understanding of the appropriate uses and interpretations of clinical diagnostic laboratory and radiographic testing. Students learn to select, interpret and evaluate clinical laboratory, imaging and other diagnostic tests used for diagnosing and managing patients' needs. Students learn to create comprehensive and thoughtful differential diagnoses based on diagnostic findings. Skills will be developed through formal lecture as well as structured laboratory exercises.

## Clinical Medicine I

This is the first in a three-part series of courses designed to provide an intensive organ-based systematic study of human diseases and disorders that occur through the lifespan. Each organ system disease or disorder covered will include a study of epidemiology, anatomy, pathophysiology, clinical manifestations, diagnostic tool selection and interpretation, differential diagnosis development, therapeutic management, prognosis, prevention, patient education, and patient referral. Instruction in the diagnosis and management of emergent and surgical disease states will also be featured. Chronic diseases rehabilitative and palliative treatment will also be explored. This course will provide students with an opportunity to synthesize and apply didactic content via clinical problem-solving and simulation laboratories. Clinical problem-solving laboratories provide a deeper exploration of lecture topics and repeated exposure to important concepts and multi-systemic diseases. Simulation training provides the student with the opportunity to practice patient assessment and management skills in a high-stress, low-risk environment. Bridging the gap between didactic coursework and "real-life" experiences, patient care simulations do not compromise patient safety if the student makes an error. Simulation training prepares the student for dynamic future patient care experiences. These laboratories will utilize manikins and/or standardized patients to demonstrate disease state clinical manifestations and provide students with opportunities to develop skills in patient interviewing, physical examination, diagnostic evaluation, assessment and therapeutic management.

## Clinical Medicine II

This is the second in a three-part series of courses designed to provide an intensive organ-based systematic study of human diseases and disorders that occur through the lifespan. Each organ system disease or disorder covered will include a study of epidemiology, anatomy, pathophysiology, clinical manifestations, diagnostic tool selection and interpretation, differential diagnosis development, therapeutic management, prognosis, prevention, patient education, and patient referral. Instruction in the diagnosis and management of emergent and surgical disease states will also be featured. Chronic diseases rehabilitative and palliative treatment will also be explored. This course will provide students with an opportunity to synthesize and apply didactic content via clinical problem-solving and simulation laboratories. Clinical problem-solving laboratories provide a deeper exploration of lecture topics and repeated exposure to important concepts and multi-systemic diseases. Simulation training provides the student with the opportunity to practice patient assessment and management skills in a high-stress, low-risk environment. Bridging the gap between didactic coursework and “real-life” experiences, patient care simulations do not compromise patient safety if the student makes an error. Simulation training prepares the student for dynamic future patient care experiences. These laboratories will utilize manikins and/or standardized patients to demonstrate disease state clinical manifestations and provide students with opportunities to develop skills in patient interviewing, physical examination, diagnostic evaluation, assessment and therapeutic management.

## Clinical Medicine III

This is the third in a three-part series of courses designed to provide an intensive organ-based systematic study of human diseases and disorders that occur through the lifespan. Each organ system disease or disorder covered will include a study of epidemiology, anatomy, pathophysiology, clinical manifestations, diagnostic tool selection and interpretation, differential diagnosis development, therapeutic management, prognosis, prevention, patient education, and patient referral. Instruction in the diagnosis and management of emergent and surgical disease states will also be featured. Chronic diseases rehabilitative and palliative treatment will also be explored. This course will provide students with an opportunity to synthesize and apply didactic content via clinical problem-solving and simulation laboratories. Clinical problem-solving laboratories provide a deeper exploration of lecture topics and repeated exposure to important concepts and multi-systemic diseases. Simulation training provides the student with the opportunity to practice patient assessment and management skills in a high-stress, low-risk environment. Bridging the gap between didactic coursework and “real-life” experiences, patient care simulations do not compromise patient safety if the student makes an error. Simulation training prepares the student for dynamic future patient care experiences. These laboratories will utilize manikins and/or standardized patients to demonstrate disease state clinical manifestations and provide students with opportunities to develop skills in patient interviewing, physical examination, diagnostic evaluation, assessment and therapeutic management.

## Pharmacology I

This the first in a series of courses designed to develop skills related to the principles of pharmacology as they pertain to therapeutic agents: prescription and non-prescription. Discussion will include the principal mechanisms of action of the major classes of therapeutic agents, understanding of pharmacodynamics, use indications, side effects, interactions, contraindications, and toxicities.

## Pharmacology II

This is the second in a series of courses designed to continue the development of skills related to the principles of pharmacology as they pertain to therapeutic agents: prescription and non-prescription. Discussion will include the principal mechanisms of action of the major classes of therapeutic agents, understanding of pharmacodynamics, use indications, side effects, interactions, contraindications, and toxicities.

## Psychosocial Medicine

This course is designed to develop skills in the area of patient and family communication, patient counseling and education. Students will study cultural diversity and how it influences all aspects of medical practice and patient care. It educates students as to how both patients'/providers' culturally informed beliefs/values can impact communication, decision making, compliance, and health outcomes. The course also instructs students to provide medical care to patients with consideration of ethnicity/race, gender identity, religion, human sexuality, substance abuse, disability, violence prevention, reaction to illness and end of life issues. Communication and counseling skills will be developed in laboratory sessions.

## Professionalism, Policy and Practice I

This is the first in a series of courses designed to aid the student in the transition into the medical profession and serves as an introduction to professional practice issues. Areas of discussion include history of the physician assistant profession, professional integrity and conduct, the healthcare team and interprofessional practice, patient centered care, professional organizations, licensing and credentialing, malpractice, health care delivery systems and policy, and use of technology in the practice of medicine. It will include instruction in patient safety, quality improvement, prevention of medical errors and risk management. This course will also cover medical ethics and the application of medical ethics theories and principles to clinical practice and clinical decision making.

## Professionalism, Policy and Practice II

This is the second in a series of courses designed to continue to aid the student in the transition into the medical profession and serves as an introduction to professional practice issues. Areas of discussion include history of the physician assistant profession, professional integrity and conduct, the healthcare team and interprofessional practice, patient centered care, professional organizations, licensing and credentialing, malpractice, health care delivery systems and policy, and use of technology in the practice of medicine. It will include instruction in patient safety, quality improvement, prevention of medical errors and risk management. This course will also cover medical ethics and the application of medical ethics theories and principles to clinical practice and clinical decision making.

## Professionalism, Policy and Practice III

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## Research Methods I

This is the first in a series of courses that emphasizes the importance of evidence based medical practice and the core concept of life-long learning. This course educates students on the usefulness and availability of medical literature, references, and databases. This course will teach students to successfully search, interpret, and evaluate medical literature and research. It will teach students to effectively develop and find answers to clinical and research questions using medical literature and then to write effectively. This course will concentrate on writing mechanics as well as referencing. This course will support student development of viable capstone research questions and will develop the critical thinking skills needed to evaluate new medical findings.

## Research Methods II

This is the second in a series of courses that emphasizes the importance of evidence based medical practice. This course continues to educate students on the usefulness and availability of medical literature, references, and databases. This course will continue to educate students on how to successfully search, interpret, and evaluate medical literature and research. It will teach students to effectively develop and find answers to clinical and research questions using medical literature and to write effectively. This course will concentrate on writing mechanics as well as referencing. This course will support student development of viable capstone research project outline and will develop the critical thinking skills needed to evaluate new medical findings.

## Primary Care, Preventive Medicine and Public Health

This course will focus on the detection and application of public health/preventive measures and treatment of health risk behaviors. Primary instruction will include public health theories, a study of the public health system, and the role of clinicians in the prevention of disease and maintenance of population health. The course also highlights concepts of public health including disease surveillance, reporting and intervention, and patient advocacy. Emphasis will be placed on disease processes and states that are common to primary care practice.

## Clinical Skills and Procedures I

This is the first in a series of courses designed to instruct the student in the common technical and procedural skills needed for clinical practice. Students will be instructed on standard precautions, proper procedural techniques utilized in the performance of common procedures including, but not limited to, venipuncture, peripheral iv placement, arterial blood gases, suturing, lumbar punctures, splinting/casting, gowning and gloving, genitourinary catheterizations, and injections. Students will be instructed on safe practice, blood and body fluid exposures risks and subsequent management. Students will obtain skills necessary for clinical practice via both lecture and hands-on practice in organized laboratories. Formal lectures as well as hands-on procedural training will provide the technical skills necessary to practice medicine and surgery with confidence and competence.

## Clinical Skills and Procedures II

This is the second in a series of courses designed to instruct the student in the common technical and procedural skills needed for clinical practice. Students will be instructed on standard precautions, proper procedural techniques utilized in the performance of common procedures including, but not limited to, venipuncture, peripheral iv placement, arterial blood gases, suturing, lumbar punctures, splinting/casting, gowning and gloving, genitourinary catheterizations, and injections. Students will be instructed on safe practice, blood and body fluid exposures risks and subsequent management. Students will obtain skills necessary for clinical practice via both lecture and hands-on practice in organized laboratories. Formal lectures as well as hands-on procedural training will provide the technical skills necessary to practice medicine and surgery with confidence and competence.

## CLINICAL CURRICULUM

### Internal Medicine Clerkship

The five-week inpatient clerkship in internal medicine provides an opportunity to apply the principles of clinical medicine learned in the didactic curriculum. Students are assigned to a team, and through supervised, ongoing patient contact, they are exposed to patients with a wide variety of acute and chronic medical problems. Emphasis is placed on data gathering, differential diagnosis, patient management, maintenance of medical records, performance of diagnostic and therapeutic skills, follow up care and the provision of health education and counseling.

### Surgery Clerkship

The five-week inpatient clerkship in general surgery provides an opportunity to apply the principles learned in the preclinical curriculum. The rotation includes supervised experiences in inpatient and ambulatory surgical care settings with exposure to pre-operative, intraoperative, and postoperative care. Emphasis is placed on data gathering, differential diagnosis, patient management, maintenance of medical records, performance of diagnostic and therapeutic skills, appropriate triage and referral, follow up care and the provision of health education and counseling.

### Pediatrics Clerkship

This five-week clerkship provides the student with practical clinical experience in working with the pediatric patient. This preceptorship is intended to augment and develop directed data collection and patient management skills emphasizing a wide range of primary care pediatric problems. It will also stress those cognitive and affective skills that will enable the student to recognize normal, and assess abnormal findings. The student will augment such skills as counseling the parent as to normal growth and development, anticipatory guidance, feeding, immunizations, etc., and will become familiar with the indications, limitations, and methodology of ambulatory diagnostic procedures and therapeutics. Further, he/she will gain an appreciation for practice management and the role a PA may play in a pediatric practice setting.

### Family Medicine Clerkship

This five-week clerkship course in family medicine provides the student with practical clinical experience in working with the ambulatory medical patient. This preceptorship is intended to augment and develop directed data collection skills emphasizing a wide range of primary care medical problems. This rotation focuses on exposing the student to preventive care and chronic care. Emphasis is placed on data gathering, differential diagnosis, patient management, maintenance of medical records, performance of diagnostic and therapeutic skills, follow up care and referral, and the provision of health education and counseling. Students learn the value of an interdisciplinary approach to primary care. Further, he or she will gain an appreciation for practice management and the role a PA may play in a community health and learn the value of an interdisciplinary approach to primary care/community health.

### Primary Care Clerkship

This five-week clerkship in primary care/community health provides the student with practical clinical experience in working with chronic care and/or ambulatory medical patients. This preceptorship is intended to augment and develop directed data collection skills emphasizing a wide range of primary care medical problems. This rotation focuses on exposing the student to preventive care, rehabilitation, chronic care and ambulatory clinics. Emphasis is placed on data gathering, differential diagnosis, patient management, maintenance of medical records, performance of diagnostic and therapeutic skills, follow up care and referral, and the provision of health education and counseling. Students learn the value of an interdisciplinary approach to primary care. Further, he or she will gain an appreciation for practice

management and the role a PA may play in a community health and learn the value of an interdisciplinary approach to primary care/community health.

### Emergency Medicine Clerkship

The five-week clerkship in emergency medicine provides an opportunity to apply the principles learned in the didactic year curriculum. Through emergency department based supervised patient contact the student will gain practical clinical experience in performing the directed history and physical, triage, as well as assessment and management of acute medical and surgical emergencies. The student will learn the value of an interdisciplinary approach to patient centered care and gain an appreciation for the role a PA may play in an emergency medicine setting.

### Women's Health Clerkship

The five-week clerkship course in women's health provides an opportunity to apply the principles learned in the didactic curriculum. Students are assigned to a women's health patient care team in which they are exposed to women's health issues including prenatal and gynecologic care. Emphasis is placed on data gathering, differential diagnosis, patient management, maintenance of medical records, performance of diagnostic and therapeutic skills, follow up care and the provision of health education and counseling. The student will learn the value of an interdisciplinary approach to patient centered care and gain an appreciation for the role a PA may play in an women's health setting.

### Behavioral Health Clerkship

The five-week clerkship course in behavioral and mental health provides an opportunity to apply general principles of psychiatry learned in the didactic year curriculum. The student is provided with practical clinical experience in identifying, evaluating, managing and referring patients presenting with common and/or emergent psychiatric problems. Students develop skills in performing mental status examinations and gathering a thorough psychiatric database. The student is exposed to management regimens and made aware of community-based mental health referral facilities that may be utilized in the treatment of the psychiatric patient.

### Clinical Elective Clerkship I

This five-week rotation provides the student with the opportunity to explore an area of medical or surgical practice beyond basic required rotations. Students are encouraged to choose an area of emerging importance in healthcare and PA practice, or a potential employment setting.

### Clinical Elective Clerkship II

This five-week rotation provides the student with the opportunity to explore an area of medical or surgical practice beyond basic required rotations. Students are encouraged to choose an area of emerging importance in healthcare and PA practice, or a potential employment setting.

### Clinical Colloquium I

In this colloquium, students will draw on their clinical clerkship(s) as well as material previously learned in the curriculum to produce and deliver a comprehensive patient case presentation to PA students and faculty.

### Clinical Colloquium II

In this colloquium, students will draw on their clinical clerkship(s) as well as material previously learned in the curriculum to produce and deliver a comprehensive patient case presentation to PA students and faculty.

## Bridge to Practice

In this course, the student will complete a summative evaluation. This evaluation will be comprised of the following: a written comprehensive examination, an oral skills clinical examination (OSCE) and a team based OSCE in the simulation laboratory. During the individual and team based OSCEs, the student will demonstrate the ability to competently communicate with patients, family members, and healthcare team members. The student will evaluate patients, create a differential diagnosis, perform indicated clinical procedures, and clinically manage the patient's care. The student will demonstrate the ability to confidently and competently work with patients while exhibiting cultural sensitivity.

## PANCE Preparation

In this seminar, students prepare for the Physician Assistant National Certification Examination (PANCE). Each student will synthesize material previously learned in the entire PA Studies curriculum, as well as study additional PANCE preparation resources in preparation for the PANCE.

## Capstone Project

The Capstone Project serves as the culminating experience for PA Students and must be completed prior to the awarding of the MS degree. Building upon prior clinical experiences, the PA program curriculum, and student interests, the Capstone Project will permit the student to gain greater insight into healthcare related issues such as medical conditions, specific therapies, diagnostic tests, clinical practice guidelines, health delivery systems, public health or patient education challenges through the delivery of a meta-analysis of current research or the completion of original research.

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