Physician Assistant Studies (PAS) - Graduate Courses

Courses

PAS/BIO/PTS 509 Cr.3
Human Gross Anatomy
A comprehensive consideration of human gross anatomy. Systems included are musculoskeletal, neurological, urogenital, gastrointestinal and cardiopulmonary. Function, development, and topographic correlations are emphasized as a means toward evaluating clinical applications. Biomechanical function, topographic and clinical applications are emphasized. Prerequisite: admission to the Biology CRNA Program, PAS Program, or DPT Professional Program; concurrent enrollment in BIO/PAS/PTS 510 under same department. (Cross-listed with BIO/PAS/PTS; may only earn credit in one department.) Offered Summer.

PAS/BIO/PTS 510 Cr.3
Applied Human Gross Anatomy
A comprehensive consideration of human anatomy including both neuro-musculoskeletal components and internal organ systems. Systems included are musculoskeletal, neurological, urogenital, gastrointestinal, and cardiopulmonary. The course provides an in-depth understanding of the gross anatomy of the human body through regional dissection. This understanding will then be demonstrated through the application of anatomy within clinical presentations. Prerequisite: admission to the Biology CRNA Program, PAS Program, or DPT Professional Program; concurrent enrollment in BIO/PAS/PTS 509 under same department. (Cross-listed with BIO/PAS/PTS; may only earn credit in one department.) Offered Summer.

PAS 626 Cr.4
Physiology for the Medical Professional
An advanced study of the physiology of human organ systems focusing on topics that provide the basis for understanding disease and pharmacotherapeutic mechanisms. Prerequisite: admission to the Physician Assistant Program. May not earn credit for PAS 626 and BIO 718 or BIO 719. Offered Summer.

PAS 628 Cr.2
Infectious Diseases
This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of infectious disease disorders and the role of the immune system in preventing and treatment of infectious disease disorders. Discussion of common microorganisms that infect humans include bacteria, fungi, viruses, and parasites. The course is designed to build on previous knowledge of microbiology concepts and allows PA students to develop critical clinical reasoning skills and an advanced understanding of infectious disease processes. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Spring.

PAS 630 Cr.3
Clinical Pharmacology I
This course introduces the PA student to the principles of pharmacologic action and classification. Emphasis is placed on the clinical application of pharmacotherapeutics for human health and disease including indications, contraindications, bioavailability, drug interactions, dose response, side effects, and adverse reactions that were not covered in PAS 630. Prerequisite: admission to the Physician Assistant Program. Offered Fall.

PAS 631 Cr.2
Clinical Pharmacology II
This course builds on the knowledge of pharmacologic principles obtained in PAS 630. Emphasis is placed on the clinical use of medications for human health and disease including indications, contraindications, bioavailability, drug interactions, dose response, side effects, and adverse reactions that were not covered in PAS 630. Prerequisite: PAS 630; admission to the Physician Assistant Program. Offered Spring.

PAS 637 Cr.1
Clinical Practice Skills I
This course facilitates the development of proper medical documentation skills, bringing together the knowledge previously developed in the program to perform and document in a medical record. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter.

PAS 640 Cr.1
Introduction to the Physician Assistant Profession
This course provides an overview of the PA profession, its history, current role in health care and other issues of professional interest. Students also begin to develop patient interview and communication skills. Concepts of professionalism and professional ethics as a PA student and graduate physician assistant are introduced. Prerequisite: admission to the Physician Assistant Program. Offered Summer.

PAS 642 Cr.3
Medical History and Physical Exam
This course is designed to introduce the process of history taking, physical examination, and patient assessment. The course includes a review of anatomy and physiology relevant to physical examination skills, instruction and demonstration of proper examination and history taking techniques, with practical application of these skills in the clinical setting. The course is comprised of several components including: Medical History, Physical Examination, Clinical experience (including visits to local nursing homes and rural family practice mentorships). Prerequisite: concurrent enrollment in PAS 643; admission to the Physician Assistant Program. Offered Fall.

PAS 643 Cr.1
Applied Medical History and Physical Exam
This course is designed to apply principles of history taking, physical examination, and patient assessment discussed in Medical History and Physical Exam in the laboratory setting. Prerequisite: concurrent enrollment in PAS 642; admission to the Physician Assistant Program. Offered Fall.

PAS 647 Cr.2
Applied Clinical Practice Skills
This course facilitates the transition from didactic learning to clinical practice by bringing together the knowledge and skills developed previously in the program. Clinical critical thinking becomes an integral part of patient evaluation through the development of differential diagnoses, diagnostic strategies, and treatment plans. Students gain further experience in using the medical literature to answer focused clinical questions and expand their skills to include critical evaluation of the secondary medical literature and the application of clinical practice guidelines to individualize patient care. This course also addresses healthcare across the lifespan including geriatric patient evaluation and management. Physical and rehabilitative medicine concepts and standardized clinical experiences are utilized to build clinic skills. Lab 4. Prerequisite: admission to the Physician Assistant Program. Offered Spring.
PAS 649 Cr.1

Health Care Administration, Law, and Ethics
This course provides the PA student with an introduction to the current health care and reimbursement systems in America, their operation and impact on community health and medical practice. Legal and regulatory aspects of medical care as a physician assistant are explored. Issues of the ethical practice of medicine are also considered. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring.

PAS 652 Cr.1

Clinical Procedures
This course prepares the PA student for clinical rotations and professional practice by introducing the technical skills and procedures based on current professional practice for patients of all ages. Students have the opportunity to practice inpatient and outpatient procedures necessary for the clinical year and professional practice as well as additional certification courses. Repeatable for credit – maximum two. Lect. 1, Lab 1. Prerequisite: admission to the Physician Assistant Program. Pass/Fail grading. Offered Spring, Summer.

PAS 654 Cr.2

Evidence Based Practice for PAs
This course introduces the PA student to the core concepts of evidence-based medicine, life-long learning, and clinical application. These concepts include the process of evidence-based medicine, the interpretation of research results, and application to healthcare. Students demonstrate the ability to utilize up-to-date scientific evidence to inform clinical reasoning and clinical judgement. Students have the opportunity to learn and develop answerable clinical questions utilizing relevant medical literature, interpreting the literature through a basic knowledge of study design and medical statistics, critically examining the literature, and applying findings to individualized patient care. Prerequisite: admission to the Physician Assistant Program. Offered Fall.

PAS 680 Cr.1

Pathology
This course presents the general principles of pathology, including cell injury, inflammation, healing, neoplasia, genetic and developmental pathology and immunopathology, as a foundation for the study of medicine. Prerequisite: admission to the Physician Assistant Program. Offered Summer.

PAS 681 Cr.1

Medical Diagnostics
This course is designed to introduce the PA student to the basic principles of diagnostic laboratory medicine and radiology commonly used in the clinical setting. Prerequisite: admission to the Physician Assistant Program. Offered Fall.

PAS 682 Cr.3

Internal Medicine: Cardiology
This course is designed to teach content and integrate the basic principles of pathophysiology, clinical diagnosis and management of cardiovascular disease. This course will expand on the basic medical sciences of human anatomy, physiology, and medical biochemistry as it applies to clinical medicine. The course is designed to allow PA students to develop clinical reasoning skills and an advanced understanding of disease processes and treatment specific to the cardiovascular system. The course will also provide instruction in the interpretation of the 12 lead EKG’s. Prerequisite: admission to the Physician Assistant Program. Offered Fall.

PAS 683 Cr.2

Gastroenterology
This course is designed to teach content and integrate the basic principles of pathophysiology, clinical diagnosis, management of gastrointestinal, hepatic, biliary, and pancreatic diseases. This course expands on the basic medical sciences of human anatomy and physiology as it applies to clinical medicine. The course is designed to allow PA students to develop clinical reasoning skills and an advanced understanding of disease processes and treatment specific to the gastroenterology system. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Spring.

PAS 685 Cr.2

Pulmonology
This course is designed to teach content and integrate the basic principles of pathophysiology, clinical diagnosis, management of pulmonary diseases. This course expands on the basic medical sciences of human anatomy and physiology as it applies to clinical medicine. The course is designed to allow PA students to develop clinical reasoning skills and an advanced understanding of disease processes and treatment specific to the pulmonary system. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Spring.

PAS 700 Cr.1

Society and Population Health
Quality health care involves an ongoing consideration of a constantly changing health care system and the impact of racial, gender, age, ethnic, and socioeconomic health disparities on health care delivery. This course facilitates the development of the PA’s role in public health, patient advocacy, and maintenance of population health. Social determinants of health are discussed to create awareness of differing health beliefs, values, and expectations of patients and other healthcare professionals that can affect communication, decision-making, compliance, and health outcomes across a patient’s lifespan. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Spring, Summer.

PAS 701 Cr.1

Nephrology
This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in nephrology. The course is designed to allow PA students to develop critical clinical reasoning skills and an understanding of renal disease processes. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring.

PAS 703 Cr.1

Endocrinology
This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in endocrinology. The course is designed to allow PA students to develop critical clinical reasoning skills and an understanding of disease processes involving the endocrine system. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring.

PAS 707 Cr.1

Hematology
This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in hematology. The course is designed to allow PA students to develop critical clinical reasoning skills and an understanding of hematologic disease processes. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Spring.
PAS 709 Cr.1

**Emergency Medicine**

This course integrates presentation of the pathophysiology, clinical diagnosis, and management of a spectrum of disorders commonly seen in the emergency room setting. The course is designed to allow PA students to develop critical clinical reasoning skills, and an advanced understanding of emergency room setting disease processes and their treatment. Prerequisite: admission to the Physician Assistant Program and approval of the program director. Offered Spring.

PAS 711 Cr.2

**Clinical Neuroscience I**

This course introduces the PA student to the major branches of neuroscience. Students integrate the pathophysiology and clinical presentation of a wide range of neurologic conditions while formulating a clinical diagnosis and treatment plan. The course is designed to allow the PA student to develop critical clinical reasoning skills and an understanding of disease processes involving the nervous system. Prerequisite: admission to the Physician Assistant Program. Offered Fall.

PAS 712 Cr.2

**Clinical Neuroscience II**

This course builds upon the concepts learned in PAS 711. Students continue to explore the major branches of neurobehavioral and neurocognitive sciences. Students integrate the pathophysiology and clinical presentation of a wide range of neurologic conditions while formulating a clinical diagnosis and treatment plan. The course is designed to allow students to develop critical clinical reasoning skills and an understanding of disease processes involving the nervous system. Prerequisite: admission to the Physician Assistant Program. Offered Spring.

PAS 717 Cr.1

**Rheumatology**

This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in rheumatology. The course is designed to allow PA students to develop critical clinical reasoning skills and an understanding of rheumatologic disease processes. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring.

PAS 720 Cr.4

**Family Medicine Rotation**

This 4-week family medicine rotation provides experiential learning that focuses on the role of the PA in outpatient family medicine. Students work under the supervision of a program-defined preceptor(s) or designee(s). Students actively apply and expand the medical knowledge gained during the didactic year and demonstrate and develop effective information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of medical practice for infant, child, adolescent, adult, and elderly patients, including preventive health; prenatal care; care of acute (urgent), chronic, gynecologic, and behavioral disorders; participation in diagnostic and therapeutic procedures; conduct of medical referrals; and education and counseling of patients and their caregivers. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring, Summer.

PAS 722 Cr.4

**Internal Medicine Rotation**

The 4-week internal medicine rotation provides experiential learning that focuses on the role of the PA in outpatient and/or inpatient internal medicine. Students work under the supervision of a program-defined preceptor(s) or designee(s). Students actively apply and expand the medical knowledge gained during the didactic year and demonstrate and develop effective information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of medical practice for adult and elderly patients, including disease prevention; care of acute (urgent) and chronic disorders; conduct of hospital admission, discharge, and/or medical referral; participation in diagnostic and therapeutic procedures; and education and counseling of patients and their caregivers. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring, Summer.

PAS 724 Cr.4

**General Surgery Rotation**

The 4-week general surgery rotation offers experiential learning that focuses on the role of the PA in the pre-operative, intra-operative, and post-operative general surgical setting. Students work under the supervision of a program-defined preceptor(s) or designee(s). Students actively apply and expand the medical knowledge gained during the didactic year and demonstrate and develop effective information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of general surgical practice for adult and elderly patients, including care of pre-operative, intra-operative, and post-operative disorders; observation of and participation in surgical procedures; conduct of hospital admission and discharge; and the education and counseling of patients and their caregivers. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring, Summer.

PAS 726 Cr.4

**Women's Health Rotation**

This 4-week women's health rotation provides experiential learning that focuses on the role of the PA in outpatient, surgical, and inpatient women's health and in labor and delivery. Students work under the supervision of a program-defined preceptor(s) or designee(s). Students actively apply and expand the medical knowledge gained during the didactic year and demonstrate and develop effective information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of medical practice for adolescent, adult, elderly, and infant (newborn) patients, including preventive health; prenatal care; labor and delivery; care of acute (urgent), chronic, gynecologic, and behavioral disorders; participation in gynecologic and obstetric diagnostic and therapeutic procedures; observation of and participation in surgical procedures; conduct of medical referrals, hospital admissions, and/or discharges; and education and counseling of patients and their caregivers. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring, Summer.
PAS 728 Cr.4
**Pediatric Rotation**
This 4-week pediatric rotation offers experiential learning about the role of the PA in outpatient and/or inpatient pediatrics. Students work under the supervision of a program-approved preceptor(s) or designee(s). Students actively apply and expand the medical knowledge gained during the didactic year and demonstrate and develop related information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of medical practice for infants, children, and adolescents, including preventive health, assessment of development, care of acute (urgent) and chronic medical disorders, participation in diagnostic and therapeutic procedures, conduct of medical referrals, and education and counseling of patients and their caregivers. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring, Summer.

PAS 730 Cr.4
**Behavioral Health Rotation**
This 4-week behavioral health rotation provides experiential learning that focuses on the role of the PA in outpatient and/or inpatient behavioral medicine. Students work under the supervision of a program-defined preceptor(s) or designee(s). Students actively apply and expand the medical knowledge gained during the didactic year and demonstrate and develop effective information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of medical practice for child-aged or adolescent, adult, and elderly patients, including care of behavioral and related medical disorders, observation of medical and/or behavioral diagnostic and therapeutic procedures, and the education and counseling of patients and their caregivers. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring, Summer.

PAS 732 Cr.4
**Emergency Medicine Rotation**
The 4-week emergency medicine rotation provides experiential learning about the role of the PA in the emergency department. Students work under the supervision of a program-approved preceptor(s) or designee(s). Students actively apply and expand the emergency medicine medical knowledge gained during the didactic year and demonstrate and develop related information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of emergency medical practice for infant, child, adolescent, adult, and elderly patients, including care of emergent, acute (urgent), and behavioral disorders; participation in emergent diagnostic and therapeutic procedures; conduct of medical referral, emergency discharge, and/or hospital admission; and education and counseling of patients and/or their caregivers. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring, Summer.

PAS 734 Cr.4
**Speciality Medicine Rotation**
The 4-week specialty rotation offers experiential learning that focuses on the role of the PA in specialized medicine or surgery. Accordingly, learning occurs in inpatient, outpatient, and/or surgical settings. Students work under the supervision of a program-defined preceptor(s) or designee(s). Students actively apply and expand medical knowledge gained during the didactic year and demonstrate and develop effective information-gathering, clinical reasoning, communication, and professionalism skills. This rotation introduces students to the fundamentals of medical or surgical care for infant, child-aged, adolescent, adult, and/or elderly patients, including preventive health; prenatal care; care of emergent, acute (urgent), chronic, gynecologic, behavioral and/or surgical disorders; observation of and/or participation in medical or surgical diagnostic and therapeutic procedures; and/or education and counseling of patients and caregivers. Repeatable for credit - maximum 16. Prerequisite: admission to the Physician Assistant Program. Pass/Fail grading. Offered Fall, Winter, Spring, Summer.

PAS 755 Cr.1-8
**Independent Study in Physician Assistant Studies**
Independent, in-depth study of a special topic or problem related to the PA profession, health sciences, and the practice of medicine. Under the direction and supervision of PA program faculty, the student may select content from core and/or specialty areas to supplement didactic and clinical curriculum. Prerequisite: admission to the Physician Assistant Program. Pass/Fail grading. Offered Occasionally.

PAS 760 Cr.1
**Obstetrics - Maternal/Fetal Care**
This course is designed to teach content and integrate the basic principles of embryology, anatomy, pathophysiology, clinical diagnosis and management of the obstetric patient and developing fetus. The course is designed to allow PA students to develop clinical reasoning skills, formulation of treatment plans, as well as an advanced understanding of maternal and fetal health. Prerequisite: admission to the Physician Assistant Program. Offered Spring.

PAS 762 Cr.1
**Pediatric and Adolescent Medicine**
This course is designed to teach content and integrate the basic principles of anatomy, pathophysiology, clinical diagnosis and management of a spectrum of disorders in Pediatrics & Adolescent Medicine along with wellness care and disease prevention. The course is designed to allow PA students to develop clinical reasoning skills, formulation of treatment plans, as well as an advanced understanding of pediatric and adolescent health. Prerequisite: admission to the Physician Assistant Program. Offered Spring.

PAS 763 Cr.1
**Genitourinary Medicine**
This course is designed to teach content and integrate the basic principles of anatomy, pathophysiology, clinical diagnosis, management, and prevention of a spectrum of diseases in gynecology and urology. The course is designed to allow PA students to develop clinical reasoning skills, formulation of treatment plans, as well as an advanced understanding of gynecologic and urologic health. Prerequisite: concurrent enrollment in PAS 764; admission to the Physician Assistant Program. Offered Spring.

PAS 764 Cr.1
**Applied Genitourinary Medicine**
Learning and gaining experience with the female breast and gynecologic exam, as well as the male genitourinary exam, will be addressed with lecture, discussion, models, and professional patients in the laboratory setting. Prerequisite: concurrent enrollment in PAS 763; admission to the Physician Assistant Program. Offered Spring.
PAS 770 Cr.1
**Principles of Surgical Medicine**
This course provides the PA student with academic preparation to evaluate and manage patients with surgical conditions. It also provides students with a core understanding of mechanisms of wound healing; surgical techniques; and pre-, peri- and post-operative management of surgical problems. Additionally, illnesses that require surgical intervention, their signs and symptoms, diagnostic modalities, and outcomes are also discussed. Prerequisite: admission to the Physician Assistant Program. Offered Spring, Winter.

PAS 771 Cr.1
**Orthopedics**
This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in orthopedics. The course is designed to allow PA students to develop critical clinical reasoning skills and an understanding of musculoskeletal disease processes. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring.

PAS 772 Cr.1
**Principles of Surgical Medicine III: Surgical Subspecialties of Otorhinolaryngology and Ophthalmology**
This course integrates presentation of the pathophysiology, clinical diagnosis and management of a spectrum of disorders in the surgical subspecialties of otorhinolaryngology and ophthalmology. Issues related to medical imaging and diagnostics in these medical disciplines are also presented. The course is designed to allow PA students to develop critical clinical reasoning skills and an advanced understanding of otorhinolaryngologic and ophthalmologic disease processes and their treatment. Prerequisite: admission to the Physician Assistant Program. Offered Spring.

PAS 773 Cr.1
**Dermatology**
This course integrates the pathophysiology, clinical diagnosis, and management of a spectrum of disorders in dermatology. The course is designed to allow PA students to develop critical clinical reasoning skills and an understanding of dermatologic disease processes. Prerequisite: admission to the Physician Assistant Program. Offered Fall, Winter, Spring.

PAS 790 Cr.1
**PA Professional Development I Seminar**
This course series prepares the PA for professional practice through the development and demonstration of program defined competencies. Completion of this series supports the program’s mission including proficiency in professional ethics and cultural competency. Additionally, PA students utilize evidence-based medicine skills learned during the didactic year to select and prepare a case-based presentation. Prerequisite: admission to the Physician Assistant Program. Offered Summer.

PAS 792 Cr.1
**PA Professional Development II Seminar**
This series prepares the PA for professional practice through the development and demonstration of program defined competencies. Completion of this series supports the program’s mission including proficiency in professional ethics and cultural competency. Additionally, PA students utilize evidence-based medicine skills learned during the didactic year to select and prepare a case-based presentation. Prerequisite: admission to the Physician Assistant Program. Offered Fall.