

PHYSICIAN ASSISTANT STUDIES (GRAD)

The Division of Physician Assistant Studies in the Department of Health Sciences offers a rigorous and comprehensive 100+ credit hour master of health science in physician assistant studies degree with a focus on a generalist curriculum.

The curriculum is divided into a preclinical and a clinical phase. The preclinical phase functions to lay the foundation for students in their achievement of all program-defined competencies: Medical Knowledge, Patient Care, Professionalism and Cultural Sensitivity and Humility, Interpersonal and Communication Skills, Systems-Based Practice and Self-Assessment and Ongoing Professional Development. This is done through multiple teaching and educational modalities, including lecture-based and experiential learning and ultimately prepares students to progress to the clinical phase.

The clinical phase of the curriculum enables students to build upon the knowledge acquired in the preclinical phase and develop skills to apply that knowledge in a variety of real-world healthcare environments and experiences. To achieve this, students rotate through core and elective Structured Clinical Professional Experiences (SCPEs). During these experiences and under the supervision of a qualified preceptor, students assess patients, establish diagnoses, present patient information to healthcare team members and work within the team to develop and enact a plan of care. The primary goal of the clinical phase is for the student to gain practical experience, further develop skills as a healthcare practitioner and learn the role of the physician assistant, as well as other members of the healthcare team.

Mission

The UNC Physician Assistant Program is honored to serve the mission of the UNC School of Medicine. We are dedicated to promoting high-quality, accessible, patient-centered health care for the people of North Carolina and the nation through excellence in education, scholarship and clinical service. The UNC PA Program is committed to the healthcare and workforce needs of North Carolinians and will use an interprofessional approach to prepare skilled and compassionate health care practitioners across the continuum of life.

Competencies

Graduates of the program must possess the knowledge, skills, attitudes and judgements to function in a broad variety of clinical situations and to render a wide spectrum of patient care. They must demonstrate the capacity to develop academic and emotional maturity and leadership skills to function in a medical team. These are reflected in the program's competencies, which are adapted from the AAPA and PAEA competencies:

Medical Knowledge

- MK1: Demonstrate comprehension of basic sciences as it pertains to the human body and overall health, from conception to death, including anatomy, physiology and genetics.
- MK2: Apply understanding of human physiology and the pathophysiology of commonly presenting disorders to identify signs and symptoms of these disease states across the lifespan.
- MK3: Apply clinical reasoning and critical thinking to develop both a differential diagnosis and most likely diagnosis by discerning

between normal and abnormal features of commonly presenting disorders.

- MK4: Formulate and recommend an appropriate, efficient, and cost-conscious diagnostic workup.
- MK5: Formulate and recommend an appropriate pharmacologic and/or non-pharmacologic management strategy in caring for healthy and ill patients across the lifespan.
- MK6: Formulate and recommend appropriate health maintenance, care and screening strategies for patients across the life span.

Patient Care

- PC1: Apply comprehension of human anatomy, physiology and pathophysiology to obtain complete and focused medical histories and perform comprehensive and focused physical examinations.
- PC2: Employ clinical knowledge in patient care settings to develop differential and most likely diagnoses and appropriately utilize clinical findings and/or diagnostics to promote medical decision-making.
- PC3: Formulate and recommend patient-centered plans with consideration of each individual patient and their circumstances.
- PC4: Provide effective patient education and counseling emphasizing the promotion of personal and public health in accordance with the patient's circumstances and values.

Professionalism & Cultural Humility

- PCH1: Consistently exhibit respect in interactions with peers, faculty, staff, patients, families and members of the healthcare team.
- PCH2: Foster collaboration with team members to enhance learning and optimize patient care.
- PCH3: Display personal accountability and engage in self-reflection, recognizing limitations and embracing constructive feedback.
- PCH4: Consistently practice cultural humility with peers, faculty, staff, patients, families and healthcare team members.
- PCH5: Apply ethical principles and adhere to state and federal laws in both educational and clinical settings, adhering to professional standards in the physician assistant profession.

Interpersonal & Communication Skills

- ICS1: Effectively communicate information and ideas with peers, faculty, staff, patients, families and healthcare team members.
- ICS2: Deliver concise and accurate patient information in the form of an oral presentation.
- ICS3: Compose concise and accurate medical documentation that demonstrates clear clinical reasoning and promotes comprehension by peers.

Systems-Based Practice

- SBP1: Appreciate and navigate the influences that affect patients' access to and utilization of healthcare, including payor systems, health literacy and cultural, societal, environmental, socioeconomic and legal factors.
- SBP2: Effectively collaborate with healthcare team members within various practice environments to deliver high quality, patient-centered care.

Self-Assessment & Ongoing Professional Development

- SAPD1: Engage in practice-based and self-directed learning using peer-reviewed and evidence-based resources.

- SAPD2: Demonstrate a systematic approach to develop clinical questions, interpret novel medical literature and promote evidence-based clinical practice in both academic and healthcare settings.

Master of Health Sciences in Physician Assistant Studies (M.H.S.)

Requirements for Admission

Applicants must meet the following minimum requirements:

1. Application submitted through the Centralized Application Service for Physician Assistants (CASPA).
2. Minimum cumulative GPA of 3.0 OR a GPA of at least 3.0 for the last 60 credit hours of coursework.
3. Bachelor's degree conferred from a regionally accredited institution in the US.
4. Minimum cumulative prerequisite GPA of 3.2. Please see the program's Admissions Requirements (<https://www.med.unc.edu/healthsciences/unc-pa/admissions/>) for more detail regarding prerequisite coursework.
5. A minimum of 1,000 of paid, direct, hands-on patient care.
6. Three letters of recommendation with at least one letter from a practicing physician assistant.
7. Prospective students should also review the technical standards (<https://www.med.unc.edu/healthsciences/unc-pa/technical-standards/>) for the program prior to applying.

Preclinical Phase Course Descriptions Spring Semester

PASC 701 – Human Anatomy¹⁸

Credit: 4 hours

This one semester clinical anatomy unit prepares the student for clinical practice with an understanding of the functional and applied anatomy stressing the normal landmarks and common clinical findings. Cadaver gross dissections and prosections, anatomical models, lectures and electronic resources are utilized in this course. The point-of-care ultrasound curriculum is introduced in this course as an adjunct.

PASC 702 – Physiology¹⁹

Credit: 2 hours

This foundation course for the clinical medicine courses will provide an understanding of human physiology at the cellular, tissue and organ levels. The importance of physiology and pathophysiology to the study of clinical medicine will be reinforced. This course lays the foundation foundations for disease etiology, management and prevention.

PASC 703 – Foundations of Medical Science²

Credit: 2 hours

An introduction to the genetic and molecular mechanisms of disease; biochemistry; microbiology. Instruction in the genetic basis of disease and clinical genetic disorders will serve as a foundation for the Clinical Medicine courses (PASC 710,720, 730) to understand genotypic specific diagnoses, prevention, and therapy. The biochemistry and microbiology modules will additionally prepare students to apply the knowledge and

principles to gain an improved understanding of organ systems and related diseases in the Clinical Medicine courses (PASC 710,720, 730).

PASC 704 – History & Physical Examination²¹

Credit: 4 hours

This semester long course introduces the student to the art of acquiring a patient history and performing the physical examination. Instruction in interpersonal and communication skills resulting in effective acquiring of patient history and collaboration with patients, families and other health professionals will be incorporated. Using weekly lecture and laboratory format the course will detail how to obtain a medical history and perform a complete physical examination. The small group labs will allow the student to learn history taking and physical examination skills, after they are demonstrated by the faculty. Simulated patient encounters will provide the student with the opportunity to practice their clinical skills. At the conclusion of each lab students will perform a case-based clinical scenario exercise with their lab partner and receive faculty feedback on their performance. A summative physical exam will be performed and graded.

PASC 705 – Professional Practice and the Health System I²²

Credit: 1 hour

This is part one of a two-part course provides an introduction to the social, regulatory, ethical and professional aspects of the PA profession. The history, development and current status of the PA profession within the context of the US health care system including professional conduct, legal issues, scope of PA practice, and economic aspects. Instruction in intellectual honesty, academic and professional conduct will be covered.

PASC 710 – Clinical Medicine I²³

Credit: 4 hours

This is the first of three didactic Clinical Medicine courses presented in the first year and will cover hematology/oncology, cardiology and pulmonology. The course will concentrate on the etiology, pathophysiology, clinical presentation, diagnosis, treatment, management and prevention of disease across the human life span; organized into an organ system approach. Clinical information will be correlated with information taught in Diagnostic Methods I (PASC 713) and Pharmacology and Therapeutics I (PASC 711). Course format includes lectures, small group case studies, assessment of standardized patients. Small group cases and assessment of standardized patients will be selected to provide understanding of disease presentation, opportunities for prevention, medical ethics, interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and other health professionals. Problem solving and medical decision-making skills will be emphasized.

PASC 711 – Pharmacology and Therapeutics I²⁴

Credit: 3 hours

This first in a series of three courses begins with an introduction to the principles of pharmacodynamics, pharmacokinetics, drug metabolism, drug interactions, adverse reactions and human behavior impacting adherence and therapeutics. Patient safety will be addressed through

understanding of the risks and benefits of drug treatment, drug interactions and adverse reactions. The student will also be introduced to the drug reference resources. Drugs will be introduced in conjunction with the clinical medicine units that are taught this semester, and students will learn to individualize pharmacologic regimens based on drug specific parameters, clinical evidence, drug safety and cost.

PASC 713 Diagnostic Methods I²⁵

Credit: 2 hours

This course provides instruction in the essentials of ordering, performing, and interpreting diagnostic studies used in the screening, diagnosis, management, and monitoring of disease. Topics for this course are congruent with Clinical Medicine I (PASC 710) and Pharmacology I (PASC 711). The course format is intended to provide case-based and/ or problem-based learning, utilizing lectures and in-class group discussion.

Summer Semester

PASC 720 – Clinical Medicine II²⁶

Credit: 8 hours

This is the second of three didactic Clinical Medicine courses presented in the first year and will cover Nephrology, Gastroenterology, Neurology, Endocrinology, Dermatology, Ophthalmology, ENT and Urology. The course will concentrate on the etiology, pathophysiology, clinical presentation, diagnosis, treatment, management and prevention of disease across the human life span; organized into an organ system approach. Clinical information will be correlated with information taught in Patient Assessment I (PASC 722), Diagnostic Methods II (PASC 723) and Pharmacology and Therapeutics II (PASC 721). Course format includes lectures, small group case studies, assessment of standardized patients. Small group cases and assessment of standardized patients will be selected to provide understanding of disease presentation, opportunities for prevention, medical ethics, interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and other health professionals. Problem solving and medical decision-making skills will be emphasized.

PASC 721 – Pharmacology and Therapeutics II²⁷

Credit: 2 hours

This second in a series of three courses will build on the principles in PASC 711. The course will concentrate on therapeutic applications of drugs for various organ systems integrated with the clinical medicine (PASC 720) units being taught during this semester. Patient safety will be addressed through understanding of the risks and benefits of drug treatment, drug interactions and adverse reactions. The course format includes lecture, case studies and small group sessions.

PASC 722 – Patient Assessment I²⁸

Credit: 6 hours

Building on knowledge gained in History and Physical Exam (PASC 704), Patient Assessment I is designed to develop the knowledge and skills required to obtain and record the complete medical history; use the appropriate equipment, techniques, and medical terminology to

document findings; develop a differential diagnosis and diagnostic work-up; and suggest a treatment plan. Working in various settings, students will be exposed to patients from diverse populations. Formal history and physical write-ups and oral presentations will be evaluated by program faculty. Professional conduct will be an important component of this course. Clinical use of point-of-care ultrasound is explored in this course.

PASC 723 Diagnostic Methods II²⁹

Credit: 1 hour

This course provides instruction in the essentials of ordering, performing, and interpreting diagnostic studies used in the screening, diagnosis, management, and monitoring of disease. Topics for this course are congruent with Clinical Medicine II (PASC 720) and Pharmacology II (PASC 721). The course format is intended to provide case-based and/ or problem-based learning, utilizing lectures and in-class group discussion.

PASC 727 – Behavioral Medicine³⁰

Credit: 2 hours

This course is an introduction to psychiatric disorders and behavioral medicine. Presented in lecture and seminar format the major psychiatric disorders are studied. DSM-V classification is covered, as is interviewing and office counseling. Clinical reasoning exercises include small-group clinical case study discussions, led by experienced clinicians, which are utilized to develop problem solving skills. Through standardized patients and/or objective structured clinical examinations the student will learn basic counseling and patient education skills and become prepared for clinical patient interactions in the clinical phase of the curriculum.

Fall Semester

PASC 730 – Clinical Medicine III³¹

Credit: 5 hours

This is the third didactic Clinical Medicine course presented in the first year and will cover Gastroenterology, Orthopedics, Obstetrics, Rheumatology, Orthopedics, Gynecology, Pediatrics, Infectious Diseases and Geriatrics. The course will concentrate on the etiology, pathophysiology, clinical presentation, diagnosis, treatment, management and prevention of disease; organized into an organ system approach. Clinical information will be correlated with information taught in Pharmacology and Therapeutics (PASC 731) and Patient Assessment II (PASC 732). Course format includes lectures, small group case studies, assessment of standardized patients. Small group cases and assessment of standardized patients will be selected to provide understanding of disease presentation, opportunities for prevention, medical ethics, interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and other health professionals. Problem solving and medical decision-making skills will be emphasized. This course series will culminate in a written Pre-Clinical Summative Assessment (PCSA), which is a must-pass element of the program to allow learners to progress to the clinical phase of the curriculum.

PASC 731 – Pharmacology and Therapeutics III³²

Credit: 3 hours

This is the third didactic Pharmacology course will build on the principles in PASC 711 and PASC 721. The course will concentrate on therapeutic applications of drugs for various organ systems integrated with the clinical medicine (PASC 730) unit being taught during this semester. Patient safety will be addressed through understanding of the risks and benefits of drug treatment, drug interactions and adverse reactions. The course format includes lecture, case studies and small group sessions.

PASC 732 – Patient Assessment II³³

Credit: 3 hours.

Building on knowledge gained in History and Physical Exam (PASC 704) and Patient Assessment I (PASC 722), this course is designed to develop the knowledge and skills required to obtain and record the complete medical history, use the appropriate equipment, techniques, and medical terminology to document findings; develop a differential diagnosis and diagnostic work-up and suggest a treatment plan. Formal history and physical write-ups and oral patient presentations will be evaluated by program faculty. Sessions will include lectures, focused physical examination practice, patient case workshops, a hospital patient encounter, and standardized patient experiences. Professional conduct is an important component of this course. Clinical application of point-of-care ultrasound is explored in this course. This course series will culminate in an experiential Pre-Clinical Summative Assessment (PCSA), which is a must-pass element of the program to allow learners to progress to the clinical phase of the curriculum.

PASC 733-Diagnostic Methods III³⁴

Credit: 3 hours

This course provides instruction in the essentials of ordering, performing, and interpreting diagnostic studies used in the screening, diagnosis, management, and monitoring of disease. Topics for this course are congruent with Clinical Medicine III (PASC 730) and Pharmacology III (PASC 731). The course format is intended to provide case-based and/ or problem-based learning, utilizing lectures and in-class group discussion.

PASC 734 – Fundamentals of Surgery³⁵

Credit: 3 hours

This course is designed to orient the student to the fundamentals of surgical practice including basic clinical procedures, sterile procedure, anesthesia, suturing, and common office procedures. Pre-operative and post-operative patient care is presented. Hands-on-laboratory training of surgical skills required for performing minor procedures is a component of this course. Clinical application of point-of-care ultrasound is explored in this course.

PASC 735 – Professional Practice and the Health System II³⁶

Credit: 1 hour

This second part of a two-part course will introduce the students to providing medical care to racial, ethnic and socioeconomically diverse patients in a fluid and changing health care system. This course continues the discussion on professional development topics pertinent to employment and practice including medical ethics, licensing and

credentialing, medical coding and billing, malpractice issues, career growth and leadership.

PASC 736 – Evidence-Based Medicine³⁷

Credit: 2 hours

This one semester course is an introduction to Evidence-based Medicine (EBM). It prepares the student for participation in Clinical Seminar I, II, and III and completion of the Capstone project. Evidence-based medicine provides tools to assist clinicians to make accurate diagnoses, select optimal treatment for their patients, and communicate these findings to both patients and other clinicians. This course will teach students to formulate clinical questions, search and critically appraise the medical literature, and incorporate the best evidence into their practice. To teach critical appraisal, the course will review statistical concepts as well as clinical epidemiology.

Clinical Phase

The clinical phase of the curriculum enables students to build upon the knowledge acquired in the preclinical phase and develop skills to apply that knowledge in a variety of real-world healthcare environments and experiences. To achieve this, students rotate through core and elective Structured Clinical Professional Experiences (SCPEs). During these experiences and under the supervision of a qualified preceptor, students assess patients, establish diagnoses, present patient information to healthcare team members and work within the team to develop and enact a plan of care. The primary goal of the clinical phase is for the student to gain practical experience, further develop skills as a healthcare practitioner and learn the role of the physician assistant, as well as other members of the healthcare team.

Clinical Phase Course Descriptions

PASC 800 – Family Medicine³⁸

Credit: 4 hours

Core rotation

Students are introduced to the principles of and practice of ambulatory care and family medicine with an emphasis on disease prevention and health maintenance across the lifespan. The learner will refine techniques in history taking, physical examination and health behavior counseling. Many of these sites provide care for disadvantaged and underserved populations, thus exposing students to the diversity of the community and family health needs, as well as the occupational and environmental issues which influence health and healthcare decision making.

PASC 801 – Internal Medicine³⁹

Credit: 4 hours

Core rotation

Students are introduced to the principles of general internal medicine. The learner will apply knowledge and skills developed in the pre-clinical year with regards to patient evaluation and begin to apply patient management strategies in an assigned clinical setting, either inpatient or outpatient. Under the direction of a preceptor, the learners analyze patients, monitor progress, perform history and physical examinations and plan therapeutic interventions. Learners will also participate in

consultations, writing orders, discharge planning and disposition regarding home care and follow-up.

PASC 802 – Surgery⁴⁰

Credit: 4 hours

Core rotation

Learners are provided with an experience in the management of patients with surgical issues. Each student will participate with the pre-operative, intra-operative (including surgical assistance to the surgeons, as indicated) and post-operative care of surgical patients. Learners will work as part of a surgical team and respond to emergency situations in various settings (emergency department, medical wards and operating room) with the team, as well as assist in the management of the surgical patient and discharge planning.

PASC 803 – Pediatrics⁴¹

Credit: 4 hours

Core rotation

Learners are provided with exposure to the care of neonates, infants, children and adolescents. Students further refine the skills of history taking and physical examination specific to the pediatric population. Learners assist with well-visits, evaluation of typical development and become familiar with disorders of growth and development, as well as the evaluation and management of common pediatric disorders. Emphasis is placed on preventative care and family dynamics.

PASC 804 – Women’s Health and Prenatal Care⁴²

Credit: 4 hours

Core rotation

Learners are provided the opportunity to gain exposure and experience with common obstetric and gynecologic conditions. Included in this is screening for breast and gynecologic malignancies, menstrual patterns, infectious disease and family planning. Additionally, the learner participates in providing routine prenatal and obstetric care.

PASC 805 – Psychiatry and Behavioral Medicine⁴³

Credit: 4 hours

Core rotation

The learner is exposed to and participates in the care of patients with psychiatric and psychosocial disorders. The student develops skill in counseling patients, communicating with family members of patients living with these conditions and management of common outpatient illnesses, including utilization of psychotropic therapeutics. Students will learn to identify and refer “at-risk” patients.

PASC 807 – Emergency Medicine⁴⁴

Credit: 4 hours

Core rotation

Learners are provided with an in-depth exposure to illnesses and injuries which necessitate emergent evaluation and intervention across the continuum of life. Students participate in all aspects of emergency medical care, including interviewing, examining and evaluating patients presenting to the emergency department. Emergent procedures and treatment will be guided by the clinical preceptor.

PASC 808/809 – Medicine Elective I & II

Credit: 4 hours each

In addition to the required core SCPEs, each learner completes two elective rotations. Students must work through appropriate programmatic channels for the identification of these sites. Students must not set up their own elective rotations. The UNC PA Program’s Academic Excellence Committee reserves the right to reassign a student’s elective SCPE(s) to place the student in an area of needed improvement as determined by the student’s performance during core SCPEs as below published standards for course outcomes and/or competencies.

PASC 810 – Primary Care/Rural Health

Credit: 4 hours

In accordance with the mission of the UNC PA Program, students are provided with a second primary care rotation with an emphasis on rural medicine and underserved patient populations.

PASC 820 – Clinical Seminar I

Credit: 1 hour

Clinical Seminar I is designed to augment the learner’s SCPEs by reinforcing acquisition of medical knowledge, supporting development of interpersonal communication skills, distinguishing traits to promote professional excellence, implementing improvements in practice performance by applying critically appraised medical literature and recognizing the impact of systems-based processes on individual care. Topics are presented in a sequence to prepare students to transition from the role of the learner to that of an autonomous member of a physician/physician assistant team. Spring term.

PASC 821 – Clinical Seminar II

Credit: 1 hour

Clinical Seminar II is designed to augment the learner’s SCPEs by reinforcing acquisition of medical knowledge, supporting development of interpersonal communication skills, distinguishing traits to promote professional excellence, implementing improvements in practice performance by applying critically appraised medical literature and recognizing the impact of systems-based processes on individual care. Topics are presented in a sequence to prepare students to transition from the role of the learner to that of an autonomous member of a physician/physician assistant team. Summer term.

PASC 822 – Clinical Seminar III

Credit: 1 hour

Clinical Seminar III is designed to augment the learner's SCPEs by reinforcing acquisition of medical knowledge, supporting development of interpersonal communication skills, distinguishing traits to promote professional excellence, implementing improvements in practice performance by applying critically appraised medical literature and recognizing the impact of systems-based processes on individual care. Topics are presented in a sequence to prepare students to transition from the role of the learner to that of an autonomous member of a physician/physician assistant team. Fall term.

As a complement to the SCPEs, students must complete courses in Basic Life Sciences (BLS), Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS) prior to beginning the clinical phase of the curriculum.

Each core SCPE includes multiple assignments, including an End-of-Rotation Examination to allow for frequent, objective and ongoing evaluation of student performance in meeting the program's learning outcomes and instructional objectives⁴⁵.

Division and Program Director

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