

Physician Assistant Program Curriculum Description Class of 2014

The Wake Forest School of Medicine Physician Assistant Program has a unique history of innovation in medical education. From its beginning in 1969 it has featured small group, self-directed learning stimulated by real patient medical problems. The Masters Curriculum strengthens this tradition through a problem-based learning curriculum with exceptional basic science, pharmacology, and evidence based medicine support and a focus on primary health care delivery. Our vision is to create a future generation of leaders for the PA Profession The integrated curriculum incorporates the following educational goals of the Wake Forest Department of Physician Assistant Studies and the School of Medicine:

- Self-directed Learning and Lifelong Learning Skills
- Core Biomedical Science Education
- Evidence Based Medicine
- Clinical Skills
- Problem Solving/Clinical Reasoning Skills
- Interviewing and Communication Skills
- Information Management Skills
- Professional Attitudes and Behavior

Pre-Clinical Year

Integrated Medical Sciences - General Description

Integrated Medical Sciences (IMS) is a five-part course with three distinct components: Fundamentals, Clinical Problem Solving and Applied Basic Sciences. Each 7-8 week unit is designed to support previous learning while driving student discovery to new breadths and depths in the areas of the core medical sciences (anatomy, physiology, genetics, microbiology, histology, biochemistry, nutrition, pathology, and pharmacology) as well as the behavioral and professional aspects of medical care. The overarching principles of the WFSM PA Program continue as central to the design of the curriculum: Creating an enhanced learning environment that challenges students to direct their own inquiry and discover their limitations of knowledge and proficiency. The integrative fashion used in the delivery of course materials is designed to support student learning and facilitate further development of the Pre-Clinical Year student toward the goal of preparedness for the Clinical Year.

IMS Fundamentals is a basic science course that begins with immersion in Unit 1 followed by refresher activities throughout the Pre-Clinical Year. This is specifically designed to set a baseline of basic science competence for use across the Pre-Clinical Year. Students will engage prosected human cadavers, complete integrated learning challenges related to anatomy and basic physiology, and attend lectures on the topics of anatomy and basic human physiology.

Clinical Problem Solving (CPS) is centered on Problem-Based Learning in the Small Group setting: Students meet with a faculty facilitator two to three times per week in small groups of six to eight students to promote development of clinical reasoning

skills and acquisition of basic, clinical and behavioral science knowledge. A patient case serves as the framework from which students integrate information from many disciplines and develop clinical practice plans. Particular content areas are highlighted throughout the Pre-Clinical Year, with focused study in the disciplines of Dermatology, Hematology, Cardiology, Pulmonary Medicine, Endocrinology, Gastroenterology, Neurology, Orthopedics, Psychiatry, Nephrology, Urology, Geriatrics, Pediatrics, Obstetrics and Gynecology.

In addition to CPS sessions, students will have the opportunity to learn via classroom lectures and hands-on activities in the Patient Simulation and Gross Anatomy Labs at WFUSM through the Applied Basic Sciences section of IMS.

Apart from the content-based activities, these five consecutive courses promote the development of cooperative and self-directed learning skills, interpersonal skills, and professional behavior. Faculty assessments of student performance will be made at the midpoint and end of each Unit. Evaluations include small group participation, problem-sets, simulated patient encounters, and computer based examinations.

Integrated Medical Sciences Courses

PA 611 IMS I (5 hrs.)

PA 613 IMS II (3 hrs.)

PA 615 IMS III (3 hrs.)

PA 617 IMS IV (3 hrs.)

PA 619 IMS V (3 hrs.)

Clinical Applications - General Description

Students will develop professional attitudes and behaviors that are adaptable to different healthcare practice environments. Skills in medical inquiry will be refined through performance in medical interviewing, physical examination, medical documentation and communication with patients, families and other health care professionals. Patient centered communication skills and medical interviewing techniques will be incorporated throughout the course activities. Evaluation is performance based and includes standardized patient examination.

Standardized patient cases will require students to develop an understanding of the basic principles and issues relating to the health of populations. The focus will be on the study of the clinical sciences involving clinical problem solving methodology, medical history taking, physical examination which affects decision making regarding diagnostic studies, imaging studies, and physician office laboratory procedures addressed in other courses. Students will continue to develop the habit of accessing and critically reviewing the medical literature and demonstrate the efficient use of good evidence in the care of patients. Clinical experiences will be assigned throughout the five courses (e.g. Emergency Medicine observational opportunities, inpatient history and physical exams, DEAC Clinic, and Pediatric clinical observations).

Clinical Application Courses

PA 612 CLNAP I (2 hrs.)

PA 614 CLNAP II (2 hrs.)

PA 616 CLNAP III (2 hrs.)

PA 618 CLNAP IV (2 hrs.)

PA 620 CLNAP V (2 hrs.)

Diagnostic Medical Sciences – General Description

This five-course sequence focuses on providing the physician assistant student with a functional understanding of the appropriate uses and interpretations of clinical diagnostic testing. Through exploration of each of the major body systems, these courses present instruction in medical procedures used in the diagnosis and treatment of the common disorders of each system. Students will learn to select, interpret and evaluate clinical laboratory, imaging and other diagnostic tests used for diagnosing, treating, and managing patient needs, as well as perform the basic clinical laboratory procedures most often done in an ambulatory practice.

Diagnostic Medical Sciences Courses

PA 621 DMS I (1 hr.)

PA 622 DMS II (1 hr.)

PA 623 DMS III (1 hr.)

PA 624 DMS IV (1 hr.)

PA 625 DMS V (1 hr.)

Pharmacology – General Description

This five course series provides students with a working knowledge of the application of pharmacologic agents to the prevention and treatment of common disease processes.

The series begins by delivering the fundamental principles of pharmacology necessary for an understanding of the mechanisms of action and other pharmacologic properties prerequisite to rational and effective prescribing and monitoring. Principles which support the clinical application of drugs to dynamic patients, who exist in a variety of health states, will be shared. Principles include pharmacokinetics, pharmacodynamics, pharmacogenetics, human behavior impacting adherence and therapeutics. Discussions of the impact of stage of development and disease on the drug safety and drug development process will be made. Awareness of key roles of other health professionals relating to safe, effective drug therapy will be provided to enhance interprofessional care and patient safety.

The series then presents fundamental principles of pharmacotherapy by describing rationale and recommended treatment plans for a broad range of disease processes, symptoms and conditions. The course series is aligned with concurrent clinical problem solving and applied basic sciences coursework. Students learn to individualize pharmacologic regimens based on drug specific parameters, clinical evidence, comorbidities, drug mechanism of action, drug safety, treatment cost and monitoring parameters. Students apply evidence based practice behaviors through

S-T-E-P-S criteria with case-based exercises and group discussions which are designed to develop pharmacotherapy decision making skills. These case exercise also inform students of strategies to educate patients and caregivers effectively about the safety and efficacy of prescribed drug therapies.

Pharmacology Courses

- PA 631 Pharmacology I** (1 hr.)
- PA 632 Pharmacology II** (1 hr.)
- PA 633 Pharmacology III** (1 hr.)
- PA 634 Pharmacology IV** (1 hr.)
- PA 635 Pharmacology V** (1 hr.)

Preparing Future Professionals – General Description

The profession of medicine encompasses more than the interview, physical examination, diagnosis, and management of medical illnesses. A knowledge and appreciation for other aspects of medicine is necessary for the understanding of modern medical practice. This course is designed to aid in your transition into the medical profession and serves as an introduction to professional practice issues.

This course sequence spans the didactic year of training. The class will consist of readings and classroom discussions on professional issues of current interest and importance. Areas of study include history of the physician assistant profession, professional organizations, professionalism, genetics and genomics, reimbursement issues including Medicaid and Medicare, biomedical ethics, health literacy, diversity issues, domestic violence, and end of life issues.

Preparing Future Professionals Courses

- PA 641 PFP I** (1 hr.)
- PA 642 PFP II** (1 hr.)
- PA 643 PFP III** (1 hr.)

Evidence Based Medicine – General Description.

This three-course sequence will cover the importance of evidence-based medicine including formulating a clinical question, finding the evidence, and evaluating the evidence. These courses will review basic statistical, research methods, and ethical standards in research as well as the interpretation, critical appraisal, and application of various types of medical literature.

Evidence-Based Medicine Courses

- PA 603 EBM I** (1 hr.)
- PA 607 EBM II** (1 hr.)
- PA 608 EBM III** (1 hr.)

PA 708A Masters Seminar (1 hr.)

During the first sequence of the Master Seminar Course, students will apply the concepts and critical appraisal skills that they previously learned during their Evidence-Based Medicine courses. As part of this course, students will work with peers to formulate a relevant clinical question related to patient care and identify appropriate evidence-based resources. With guidance from faculty advisors, students will begin the development of an evidence-based manuscript of publishable quality.

PA 691 Clinical Year Preparation (2 hrs.)

This 3-4 week course follows Unit 5 and precedes the start of the Clinical Year. The course will provide focused instruction to students on skills that prepare them to participate in the mandatory and elective clinical rotations. General topics include surgical skills (e.g. suturing, knot tying, OR/Scrubbing, wound care, casting/splinting, gross anatomy, other procedures); mandatory preceptor site information (e.g. Blood-Borne Pathogen exposure, Employee Health communication, HIPAA); refreshers of fundamental clinical skills (e.g. EKG, Xrays, Fluid and Electrolyte Management, ABGs), and specialty-specific sessions and workshops (e.g. ACLS, Fetal Monitor strip interpretation, Pediatrics, Labor and Delivery, Geriatrics.) Students will undergo orientation to the rotation structure and schedules, departmental guidelines, rules and expectations for the upcoming Clinical Year.

Clinical Year

Masters Project Course Description

PA 708B Masters Seminar (1 hr.)

During this extension of the Master Seminar Course, students will continue the development of a scholarly manuscript as part of their graduate project. The final manuscript effort will be a work that advances knowledge related to discovery, integration, application, or teaching within the medical sciences. These efforts will be presented in oral or poster format at the Wake Forest School of Medicine Department of Physician Assistant Studies Masters Symposium.

Preparing Future Professionals

PA 744 Preparing Future Professionals (1 hr.)

The course includes all of the PFP/Call-back days throughout the Clinical Year. It will consist of clinical lectures and workshops, professional sessions, clinical skills assessments and other activities. Areas of study mirror those in the Pre-Clinical Year, however will expand into more practice-specific topics, and delve into deeper complexity for the clinical topics. Evaluation, both formative and summative, is based upon performance of the clinical skills assessments and upon participation and attendance for the lectures and workshop sessions.

Clinical Rotation Descriptions - Required

PA 701 Family Medicine (4 hrs.)

This four week course provides the PA student with experience in outpatient evaluation of pediatric and adult patients, including health maintenance exams and acute and chronic illness.

PA 702 Surgery (4 hrs.)

This four week clinical course provides the PA student with hands-on experience in the operating room as well as pre- and postoperative assessment and outpatient follow-up.

PA 703 Emergency Medicine (4 hrs.)

This four week clinical course provides the PA student with experience in triage, evaluation, and management of patients in the emergency room setting.

PA 704 Obstetrics and Gynecology (4 hrs.)

This four week course provides the PA student with experience in managing common gynecologic disorders. Obstetric experience will include labor and delivery plus routine prenatal and postpartum care. Students will also gain experience in the surgical aspects of this specialty.

PA 705 Pediatrics (4 hrs.)

This four week course provides the PA student with experience in outpatient and some in-patient management of pediatric patients. The student will have the opportunity to perform well child exams as well as problem oriented exams under the supervision of a preceptor working in the pediatric specialty.

PA 706 A & B Internal Medicine (4 hrs. each)

These two four-week clinical courses provide the PA student with experience in internal medicine and other medicine specialties. The student will gain in-depth knowledge of a variety of medical problems and learn the skills necessary for providing patient care in an in-patient, hospital-based setting for four weeks and an outpatient setting for 4 weeks.

PA 709 Psychiatry (4 hrs.)

This four week course will expose students to both in-patient and out-patient psychiatric and psychological disorders & diseases. A generalist emphasis underlies the objectives of this rotation.

Clinical Rotation Electives

PA 707A Elective I (4 hrs.)

PA 707B Elective II (4 hrs.)

PA 707C Elective III (4 hrs.)

Each four-week course is chosen from all of the medical specialties and subspecialties. Each student will take three rotation electives during the clinical year.