

# MEDICAL SCIENCE

PAs are nationally certified health care professionals who are state-licensed to practice medicine and prescribe medication in every medical and surgical specialty and setting. PAs practice and prescribe in 50 states, the District of Columbia and all U.S. territories and are licensed to practice in Puerto Rico. PAs are educated at the graduate level, receiving a Master's degree or higher. In order to maintain national certification, PAs are required to recertify as medical generalists every 10 years and complete 100 hours of continuing medical education every two years.

PA education and the PA Medicine Program is modeled on physician education and PA students are taught to perform a comprehensive range of medical duties, from basic primary care to specialty procedures. PA students are also taught how to act as first or second assistants in major surgery and provide pre- and postoperative care.

PA Medicine students are taught to be generalists so that in locations where physicians are in short supply, they may serve as the primary providers of health care, collaborating with physicians and other medical professionals as needed and as required by law.

## Programs

The Medical Science Department offers these programs:

- PA Medicine, M.S. (<http://catalog.css.edu/programs-az/healthprofessions/medical-science/pa-medicine-ms/>)

## Contact Information

pamedicine@css.edu

## Accreditation

The ARC-PA has granted Accreditation - Continuing status to the PA Medicine Program sponsored by The College of St. Scholastica.

The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA) has granted Accreditation-Continued status to The College of St. Scholastica PA Medicine Program sponsored by The College of St. Scholastica. Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA Standards. Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the Standards. The approximate date for the next validation review of the program by the ARC-PA will be September 2031. The review date is contingent upon continued compliance with the Accreditation Standards and ARC-PA policy.

The program's accreditation history can be viewed on the ARC-PA website (<http://www.arc-pa.org/accreditation-history-college-of-st-scholastica/>). (<http://www.arc-pa.org/wp-content/uploads/2021/07/Accreditation-History-College-of-St.-Scholastica-243.pdf>)

## Prerequisite Coursework

BIO 2020 - Microbiology  
 BIO 2510 - Human Anatomy and Physiology I  
 BIO 2520 - Human Anatomy and Physiology II  
 CHM 2200 - Organic Chemistry I  
 CHM 3240 - Biochemistry I  
 HSC 2209 - Medical Terminology

PSY 2208 - Lifespan Developmental PSY  
 PSY 3331 - Statistics

## PA Medicine Courses

### PAS 6000 - Clinical Skills I - 2 cr.

Develops a functional understanding of the appropriate use and interpretation of clinical diagnostic testing, including laboratory studies and radiographic imaging. Provides instruction on performance of medical procedures commonly employed by the primary care PA. The first in a three course series that lays the groundwork for further mastery of clinical skills, while building on learning from Fundamentals of Medicine I and maintaining a curricular thread with Functional Anatomy I, Pharmacology I and Physical Exam and Diagnosis I.

### PAS 6010 - Clinical Skills II - 2 cr.

Continues to develop a functional understanding of the appropriate use and interpretation of clinical diagnostic testing, including laboratory studies and radiographic imaging. Provides instruction on performance of medical procedures commonly employed by the primary care PA. This is the second in a three course series that also builds on learning from Fundamentals of Medicine II, while maintaining a curricular thread with Functional Anatomy II, Pharmacology II and Physical Exam and Diagnosis II.

### PAS 6020 - Clinical Skills III - 2 cr.

Continues to develop a functional understanding of the appropriate use and interpretation of clinical diagnostic testing, including laboratory studies and radiographic imaging. Provides instruction on performance of medical procedures commonly employed by the primary care physician assistant. This is the third in a three course series that also builds on learning from Fundamentals of Medicine III, while maintaining a curricular thread with Functional Anatomy III, Pharmacology III and Physical Exam and Diagnosis III.

### PAS 6100 - History and Physical Exam I - 3 cr.

Introduces the concepts and techniques of medical interviewing, physical examination, and clinical documentation necessary for medical practice as a PA. Includes methods of delivery for oral patient presentation, exposure to the electronic medical record format, and basic billing and coding constructs. The course of study parallels the organ systems studied in Functional Anatomy I, Fundamentals of Medicine I, Pharmacology I and Clinical Skills I; and will integrate the knowledge of the human body acquired in those courses.

### PAS 6110 - History and Physical Exam II - 3 cr.

Develops the concepts and techniques of medical interviewing, physical examination, and clinical documentation necessary for medical practice as a PA. Expands upon methods of delivery for oral presentation and patient education, and provides continued experiences in electronic medical record utilization and basic billing and coding. The course of study parallels the organ systems studied in Functional Anatomy II, Fundamentals of Medicine II, Pharmacology II and Clinical Skills II; and will integrate the knowledge of the human body acquired in those courses.

**PAS 6120 - History and Physical Exam III - 3 cr.**

Further develops the concepts and techniques of medical interviewing, physical exam, diagnosis, and clinical documentation necessary for medical practice as a PA. Refines methods of delivery for oral patient presentation and provides continued experiences in electronic medical record utilization and basic billing and coding. Culminates in the ability to perform a complete history and physical exam, as well as specialty exams, including pediatric, geriatric, pre-operative, and screening examinations. The course of study parallels the organ systems studied in Functional Anatomy II, Fundamentals of Medicine III, Pharmacology III and Clinical Skills III; and will integrate the knowledge of the human body acquired in those courses.

**PAS 6200 - PA Professional Issues I - 0.5 cr.**

Discusses the history and current role of the PA profession. Focuses on practice management topics include licensing, credentialing, and maintenance of certification. Explores the US health care and reimbursement systems including medical practice in unique populations and settings.

**PAS 6210 - PA Professional Issues II - 0.5 cr.**

Introduces general medical ethical principles including guidelines for ethical practice and conduct expected of health professionals. Emphasizes cross-cultural communication techniques.

**PAS 6220 - PA Professional Issues III - 0.5 cr.**

Explores ethical and legal topics such as mandatory reporting, informed consent, quality of life, and end of life issues. Includes special topics such as research and genetics.

**PAS 6300 - Fundamentals of Medicine I - 4 cr.**

Develops the fundamentals essential to the diagnosis and management of common medical conditions seen by primary care PAs. This is the first in a three course series with information organized by organ system and presented in conjunction with corresponding areas of study in Functional Anatomy I, Pharmacology I, History and Physical Exam I and Clinical Skills I.

**PAS 6310 - Fundamentals of Medicine II - 4 cr.**

Continues to develop the fundamentals essential to the diagnosis and management of common medical conditions seen by primary care PAs. This is the second in a three course series with information organized by organ system and presented in conjunction with corresponding areas of study in Functional Anatomy III, Pharmacology III, History and Physical Exam III, and Clinical Skills III.

**PAS 6320 - Fundamentals of Medicine III - 4 cr.**

Continues to develop the fundamentals essential to the diagnosis and management of common medical conditions seen by primary care PAs. This is the third in a three course series with information organized by organ system and presented in conjunction with corresponding areas of study in Functional Anatomy III, Pharmacology III, History and Physical Exam III, and Clinical Skills III.

**PAS 6400 - Pharmacology I - 4 cr.**

Develops a foundation in the general principles of pharmacology (including pharmacokinetics, pharmacotherapy and pharmacodynamics) and application to patient care. Classes of pharmaceuticals will parallel the organ systems studied in Functional Anatomy, Fundamentals of Medicine and History and Physical Exam.

**PAS 6410 - Pharmacology II - 4 cr.**

Builds upon the general principles of pharmacology (including pharmacokinetics, pharmacotherapy and pharmacodynamics) and their application to patient care. Classes of pharmaceuticals will parallel the organ systems studied in Functional Anatomy, Fundamentals of Medicine and History and Physical Exam.

**PAS 6420 - Pharmacology III - 4 cr.**

Further develops knowledge of pharmacology principles (including pharmacokinetics, pharmacotherapy and pharmacodynamics) and their application to patient care. Classes of pharmaceuticals will parallel the organ systems studied in Fundamentals of Medicine and History and Physical Exam.

**PAS 6500 - Clinical Medicine I - 0.5 cr.**

Develops clinical competencies in obtaining and history and physical exam findings, and employing basic clinical reasoning. Develops skills to effectively communicate with primary care preceptors.

**PAS 6510 - Clinical Medicine II - 0.5 cr.**

Develops progressive clinical competency in obtaining and recording history and physical exam findings, and begins employing clinical reasoning. Develops skills to effectively communicate with preceptor. Includes methods for organizing oral and written presentations of case material.

**PAS 6520 - Clinical Medicine III - 0.5 cr.**

Develops advanced clinical competencies in obtaining and recording history and physical exam findings, and employing clinical reasoning. Develops skills to effectively communicate with the preceptor. Includes methods for comprehensive oral and written presentations of case material and clinical findings to care team.

**PAS 6600 - Problem Solving in Medicine I - 1 cr.**

Develops competencies in patient-centered problem solving, and in integrating knowledge to develop care decisions while respecting patient values, priorities and preferences. Utilizes case based learning.

**PAS 6610 - Problem Solving in Medicine II - 1 cr.**

Develops competencies in patient-centered problem solving, and in integrating knowledge to develop care decisions while respecting patient values, priorities and preferences. Utilizes case based learning.

**PAS 6700 - Functional Anatomy I - 0,4 cr.**

Advanced, regional anatomy course emphasizes the study of functional relationships between organ systems, musculature, nervous tissue, vascular, and skeletal components of the cardiovascular system and heart, pulmonary system, musculoskeletal system, and head, ears, eyes, nose, and throat. Cadaver dissection laboratory experience enhances understanding of the three-dimensional anatomical relationships among specific body regions.

**PAS 6710 - Functional Anatomy II - 0,4 cr.**

Advanced, regional anatomy course emphasizes the study of functional relationships between organ systems, musculature, nervous tissue, vascular, and skeletal components of the renal, gastrointestinal, urinary, reproductive, endocrine, and nervous systems. Cadaver dissection laboratory experience enhances understanding of the three-dimensional anatomical relationships among specific body regions.

**PAS 6777 - Topics in PA Medicine - 0-6 cr.**

Topics in PA Medicine.

**PAS 6800 - Research Design and Evidence-Based Medicine - 2 cr.**

Prepares students with foundational knowledge and skills needed to formulate research questions and hypotheses, critically evaluate and analyze scientific and medical journals, and to conduct computerized searches and literature reviews. Describes principles of Evidence-Based Medicine. Prepares the student for a Masters level capstone project and continued lifelong learning.

**PAS 6850 - Interprofessional Collaborative Practice - 1 cr.**

Develops competencies in effective team roles in patient care, communication and collaboration among team members, engaging other health professionals in shared patient-centered care, and integrating knowledge and abilities of other health professionals to inform patient care while respecting patient values, priorities and preferences. Incorporates current topics and issues in health care as illustrated by collaboratively managed patient cases. Includes students and/or instructors of other healthcare disciplines and may have both face-to-face and asynchronous, online components.

**PAS 6900 - Public Health and Health Care Issues - 2 cr.**

Examines disease prevention, health promotion services, population and public health, and community dimensions of medical practice. Additional topics include patient safety and quality assurance.

**PAS 6950 - Emergency Medicine Rotation - 6 cr.**

Prepares PA students to function in all aspects of care of emergency medicine patients. Students will become competent in skills to evaluate, triage, manage and stabilize patients presenting to the emergency room. Students perform or assist in procedures performed in the emergency room. Students will learn to effectively communicate with patients, and families under stress. Requires direct supervision by clinical instructors. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6952 - Pediatric Medicine Rotation - 6 cr.**

Prepares PA students to provide high quality care for children and adolescents. Students will become competent in the evaluation and management of problems commonly encountered by pediatric primary care providers, as well as unique aspects of community based pediatric medicine. Students develop medical, technical and interpersonal skills to provide care for the pediatric patient and his/her parent(s) or guardian(s). Requires direct supervision by clinical preceptor. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6954 - Women's Health Rotation - 6 cr.**

Prepares PA students to provide high quality care for women, including gynecologic and obstetric care, in aspects essential in a primary care setting. Students will develop the ability to evaluate, manage, treat, and educate the female patient, including the areas of contraception, pregnancy, prenatal and postpartum care, and menopause. The student will utilize critical thinking, history taking and physical exam skills, and use diagnostic tests, as appropriate, in order to effectively create a plan of care for the female patient. The student will perform or assist in procedures utilized in women's health. Students will communicate with women in a respectful and sensitive manner. Requires direct supervision by clinical instructors. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6956 - Behavioral Medicine Rotation - 3 cr.**

Focuses on the development of an evidence-based approach to the evaluation, diagnosis and management of patients with psychiatric and behavioral conditions. Students perform or assist in behavioral medicine assessments. Students are active members of the health care team and demonstrate appropriate interpersonal skills. The students will develop an understanding of the role of psychiatrists, psychologists, social workers and nurses in the care of patients with psychiatric and behavioral health conditions. Requires direct supervision by clinical instructors. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6958 - General Surgery Rotation - 6 cr.**

Prepares PA students to function in all aspects of surgical medicine. Students are introduced to surgical disorders commonly encountered in various settings by the PA. Students gain familiarity with preoperative and postoperative patient care, assisting in the operating room, performing exams and surgical procedures. Students develop medical, technical and interpersonal skills to provide care to surgical patients and communicate with patients, family members and other members of the health care team. Requires direct supervision by clinical instructors. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6960 - Inpatient Medicine Rotation - 6 cr.**

Focuses on the development of an evidence-based approach to the evaluation and care of hospitalized medical patients. Students will learn about the presentations and management of common medical conditions that are managed in the hospital and become skilled at educating patients about their medical problems. Students function in the role of a hospital-based PA, are active members of the health care team and demonstrate interpersonal skills. Students perform or assist in procedures on the inpatient medicine service. Requires direct supervision by clinical instructors. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6970 - Primary Care Rotation I - 6 cr.**

Focuses on the continued development and enhancement of history-taking, physical exam, diagnosis and treatment skills in primary care clinical settings. Prepares students to provide high quality care across the lifespan for patients of diverse age, gender, background and disease states. The first of a three-part rotation that includes interprofessional experiences and opportunities to demonstrate respect, compassion and integrity in more long term patient and professional relationships with opportunities to focus on continuity of care; community and population health and ongoing follow up. Direct supervision by clinical instructors is required. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6972 - Primary Care Rotation II - 6 cr.**

Focuses on the continued development and enhancement of history-taking, physical exam, diagnosis and treatment skills in primary care clinical settings. Prepares students to provide high quality care across the lifespan for patients of diverse age, gender, background and disease states. The second of a three-part rotation that includes interprofessional experiences and opportunities to demonstrate respect, compassion and integrity in more long term patient and professional relationships with opportunities to focus on continuity of care; community and population health and ongoing follow up. Direct supervision by clinical instructors is required. The rotation is 4 weeks long, schedule is dependent on that of the preceptor.

**PAS 6980 - Elective Rotation - 1 cr.**

Focuses on the development of knowledge and skills in an area of medicine the PA student wishes to further explore. Students and preceptors develop objectives specific to the elective specialty in addition to the general rotational objectives. Students will become familiar with the presentations and management of conditions encountered in the elective specialty, are active members of a health care team, and demonstrate interpersonal skills. Requires direct supervision by clinical instructors. The rotation is 2 weeks long, schedule is dependent on that of the preceptor.

**PAS 6986 - Behavioral Health Integration in Primary Care - 3 cr.**

Emphasizes the role of the primary care PA in screening, assessing, diagnosing, and managing patients with common, uncomplicated psychiatric disorders, such as mood, anxiety, neurodevelopmental, sleep disorders, eating disorders, chronic pain, personality disorders, and substance use disorders. Students will develop an understanding of common types of medication and therapy used in behavioral medicine and perform simulated behavioral medicine assessments. Students will learn how to work with the interdisciplinary mental healthcare team. As a result, students will develop the knowledge and skills necessary to effectively care for primary care patients experiencing deviations in mental health across the lifespan.

**PAS 6990 - Capstone I - 1 cr.**

Prepare a manuscript of the master's project during this first Capstone course. The Capstone course series occurs throughout the clinical phase of the PA curriculum.

**PAS 6992 - Capstone II - 1 cr.**

Finalize the manuscript of the master's project in preparation for future publication. This is the second Capstone course in the Capstone 4-course series, which occurs throughout the clinical phase of the PA curriculum.

**Prerequisite Courses:** PAS 6990

**PAS 6994 - Capstone III - 1 cr.**

Prepare the slides/poster of the master's project for presentation and oral defense. This is the third Capstone course in the Capstone 4-course series, which occurs throughout the clinical phase of the PA curriculum.

**Prerequisite Courses:** PAS 6992

**PAS 6996 - Capstone IV - 2 cr.**

Provide the program with a final evaluation of readiness and eligibility to graduate via an assessment process encompassing multiple components, including: Observed Standardized Clinical Examinations (OSCEs), a comprehensive summative examination, and the completion of a master's project which includes a presentation. This course occurs during the last semester of the clinical phase of the PA curriculum and is this fourth course in a 4-course series.

**Prerequisite Courses:** PAS 6994