

2017-2018 Course Descriptions

Physician Assistant Program

Didactic Course Descriptions

Anatomical Sciences I (AHANA-65101)

This course is designed to provide the student an extensive background in the fundamentals of human anatomy through lecture, small group laboratory, and independent study formats. Embryology coupled with structures of the upper and lower extremities, cardiovascular and pulmonary systems, abdomen and pelvis, and reproductive organs are described and illustrated in lecture followed by laboratory experiential learning that emphasizes the location, identification, function, and relationships of pertinent structures using cadavers, prosections, radiograph images, and static models. The course is intended to provide an anatomical basis for understanding the physical examination and structural changes associated with illness and injury of each major organ and body system.

Credit: 5 semester hours

Course Director: Ming Zhang

Course Offered: Fall 1, Terms 1,2,3

Anatomical Sciences II (AHANA-62102)

This course is designed to provide the student an extensive background in the fundamentals of human anatomy utilizing lecture, small group laboratory, and independent study formats. Anatomic structures of the head and neck are described and illustrated in lecture followed by laboratory experiential learning to include location and identification as well as function and relationships of structures using cadavers, prosections, radiograph images, and static models. The course is intended to provide an anatomical basis for understanding the physical examination and structural changes associated with illness and injury of each major organ and body system.

Credit: 2 semester hours

Course Director: [Ming Zhang](#)

Course Offered: Spring 1, Term 1

Behavioral Dynamics (PABDN-64431)

This lecture and discussion course designed to provide the student with an overall view of the normal and abnormal characteristics of human psychological development and behavior. The etiology and consequences of common congenital and environmental influences are studied in relation to the pediatric, adult, and geriatric patient.

Credit: 4 semester hours

Course Directors: [Bengi Melton](#) and [Vicki Waters](#)

Course Offered: Spring 1, Terms 2, 3

Clinical Biochemistry (AHBIO-63121)

This course is designed to provide the student with the basics of clinical biochemistry in order to prepare them for their further studies. The course will review basic organic chemistry pertinent to understanding metabolic pathways with emphasis on different aspects of clinical biochemistry including structure and function of proteins, enzyme kinetics, and the metabolism of carbohydrates, lipids and amino acids. Special attention will be given to the nutritional needs of humans.

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Credit: 3 semester hours

Course Director: [Kristina Hulten](#)

Course Offered: Fall 1, Terms 1, 2

Clinical Genetics (AHGEN-61141)

This course teaches allied health graduate students the basics of clinical genetics in order to prepare them for their further studies and practice in primary care. The course will review basic genetic information (the structure of DNA, RNA and protein synthesis) and clinical genetics (human development, gene analysis, disease producing mutations).

Credit: 1 semester hour

Course Director: [Brett Graham](#)

Course Offered: Fall 1, Term 3

Clinical Medicine 1 (PACMD-61501)

The PIM module introduces the basic principles cell injury, adaptation and death, acute and chronic inflammation, cell regeneration and fibrosis, hemostasis, thrombosis and shock, immune-mediated injury, benign and malignant neoplasms, atherosclerosis along with an introduction to the mechanisms underlying viral, bacterial, and fungal pathogens to include innate host defense mechanisms prior to studying organ system pathophysiology.

Credit: 1 semester hour

Course Directors: [Katherine Erdman](#)

Course Offered: Fall 1, Term 1

Clinical Medicine 2 (PACMD-61502)

The CVS module introduces the pathophysiology, clinical manifestations differential diagnosis, and treatments of acute and chronic disease involving the cardiovascular system. Critical Thinking Sessions are used to integrate and apply the acquired from lectures and readings.

Credit: 1 semester hour

Course Directors: [Katherine Erdman](#)

Course Offered: Fall 1, Term 2

Clinical Medicine 3 (PACMD-63503)

The PRI module introduces the pathophysiology, clinical manifestations, differential diagnosis, and treatments of acute and chronic disorders involving the pulmonary, renal and integument systems. Critical Thinking Sessions are used to integrate and apply the acquired from lectures and readings.

Credit: 3 semester hours

Course Directors: [Katherine Erdman](#)

Course Offered: Fall 1, Term 3

Clinical Medicine 4 (PACMD-62511)

The GGMR module introduces the pathophysiology, clinical manifestations, differential diagnosis, and treatments of acute, chronic and obstructive disorders involving the gastrointestinal, genitourinary, musculoskeletal, and rheumatologic systems. Critical Thinking Sessions are used to integrate and apply the acquired from lectures and readings.

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Credit: 2 semester hours

Course Directors: [Katherine Erdman](#)

Course Offered: Spring 1, Term 1

Clinical Medicine 5 (PACMD-62512)

The EON module introduces the pathophysiology, clinical manifestations, differential diagnosis, and treatments for acute and chronic disorders involving the ears, eyes, and central and peripheral nervous systems. Critical Thinking Sessions are used to integrate and apply the acquired from lectures and readings.

Credit: 2 semester hours

Course Directors: [Katherine Erdman](#)

Course Offered: Spring 1, Term 2

Clinical Medicine 6 (PACMD-62513)

The EGHOUID module introduces the pathophysiology, clinical manifestations, differential diagnosis and treatments for urgent, acute and chronic disorders involving the endocrine and hematologic systems coupled with disorders effecting older adults and the management of HIV infection. Critical Thinking Sessions are used to integrate and apply the acquired from lectures and readings.

Credit: 2 semester hours

Course Directors: [Katherine Erdman](#)

Course Offered: Spring 1, Term 3

Clinical Prevention (PACLP-62301)

This course introduces students to the history, underlying theory, and basic concepts associated with clinical prevention in the United States, espoused by the United States Preventive Services Task Force (USPSTF). Recommended guidelines and strategies for early disease screening, risk identification, and risk stratification are addressed using a population-specific frame of reference designed to complement parallel learning experiences in Clinical Medicine, Physical Diagnosis, Genetics, and Health Behavioral Counseling. Concepts will be cumulatively implemented throughout the Physical Diagnosis course through patient write-ups and through this course utilizing case integrations.

Credit: 2 semester hours

Course Directors: [Sarah Keyes](#)

Course Offered: Fall 1, Terms 1, 2

Cultural Competency I (PACC-62401)

The course introduces students to issues surrounding cultural awareness and sensitivity pertaining to the diversity and uniqueness of populations to be encountered as health care practitioners using lectures, panel discussions, small group activities, and participation in community events. Over the course of a year, the course will explore personal bias, communication styles, belief systems, alternative health care practices, family roles, and the relationship of these issues to perceptions of culture and socioeconomic status.

Credit: 2 semester hours

Course Directors: [Carl Fasser](#)

Course Offered: Fall 1, Terms 1, 2

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Diagnostic Testing (PADIA-62701)

A course designed to acquaint students with the principles involved in and the clinical evaluation of radiographic and clinical laboratory diagnostic studies. The emphasis within the radiology section is placed on normal radiographic findings and their comparison to the abnormalities visualized in disease processes. In the laboratory medicine section, the lectures are designed to survey and relate the results of tests to clinical situations. Lectures will also introduce the techniques of more important laboratory tests to include specimen acquisition and handling.

Credit: 2 semester hours

Course Directors: [Antone Opekun](#)

Course Offered: Spring 1, Term 2

Electrocardiography (PAECG-62711)

This course designed to present a systematic approach to ECG interpretation in preparation for didactic training in cardiology. The objective of the course is to teach the student to evaluate ECG tracings using the specific steps and each lecture covers a specific topic or topics and builds on the previous ones. After completing each lecture, the student will be given ECG tracings to review and apply the knowledge acquired in laboratory conferences.

Credit: 2 semester hours

Course Director: [Antone Opekun](#)

Course Offered: Spring 1, Term 3

Health Behavioral Counseling (AHHBC-62201)

This course introduces counseling and behavioral science theories, skills, and tools to enhance learners' communication skills and understanding of the process of health behavior change. Behavior change stages and processes are introduced using the Transtheoretical Model and social learning theories, with a focus on applying Motivational Interviewing skills. Learning activities include role play, observation of self-help support group sessions, simulated patient encounters, and critical reflection, to help learners develop an intimate understanding of the process of change and increase empathy for patients attempting to change health behaviors.

Credit: 2 semester hours

Course Director: [Robert McLaughlin](#) & Beth Garland

Course Offered: Fall 1, Terms 1, 2, 3

Health Research Methods (AHRM-62441)

This course will introduce the student to analytical methods used in clinical and community-based research, evidence-based practices used to evaluate potential treatment alternatives, and strategies underlying critical evaluation of current published literature. Lectures, practice exercises, and on-line activities will be used to involve the learner in the research process, proposal development, and the interpretation of research performed by others. Assignments are used to assist with the application and reinforcement of information presented during lecture and to promote constructive criticism and critical reflection.

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Credit: 2 semester hours

Course Director: [Antone Opekun](#)

Course Offered: Spring 1, Term 2, 3

Human Physiology I (AHPHY-64221)

This course is designed to provide the student an extensive understanding of human physiology from the cellular to the organ and body systems level with a focus on the mechanisms of normal organ function and the consequences of malfunction of the nervous, cardiovascular, respiratory, renal and digestive systems along with temperature regulation. Clinical examples that illustrate the consequences of malfunction are used to emphasize, by comparison, normal physiology.

Credit: 4 semester hours

Course Director: [David Johnson](#)

Course Offered: Fall 1, Terms 2, 3

Human Physiology II (AHPHY-62222)

This course is designed to provide an extensive understanding of human physiology from the cellular to the organ and body systems level with a major emphasis on the mechanisms of normal organ function and the consequences of malfunction of the endocrine and reproductive systems along with energy and metabolism, bone, and the physiology of normal pregnancy. Clinical examples that illustrate the consequences of malfunction are used to emphasize, by comparison, normal physiology

Credit: 2 semester hours

Course Director: [David Johnson](#)

Course Offered: Spring 1, Term 1

Immunology for Allied Health (AHIMM-62131)

This course will provide an overview of basic immunological concepts including components of the immune system, innate and adaptive immune responses. The immune responses against infectious microbes as well as immunologic diseases will also be addressed.

Credit: 2 semester hours

Course Director: Ramachandr Reddy

Course Offered: Fall 1, Term 2

Medical Ethics (AHETH-62421)

The course introduces students from multiple disciplines to the basic concepts and language of medical ethics, presents relevant topics in medical ethics, and models the skills requisite to the application of medical ethics to clinical cases using small group sessions and clinical ethics rounds. The interdisciplinary nature of the course ensures that the breadth and depth of problems in the clinical arena are addressed.

Credit: 2 semester hours

Course Director: [Jennifer Blumenthal-Barby](#)

Course Offered: Spring 1, Term 2

Pharmacology I (PAPRM-63801)

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This course promotes an understanding of the general principles of pharmacology and their application of these principles to patient care situations. Students will learn the mechanism of action of drugs in different therapeutic classes and understand how use of these drug interacts with the pathophysiology of the disease under treatment; learn the most common effects and side effects for prototypic drugs in each category; become comfortable with sources of information about drugs, drug side effects and drug interactions; learn the drug of choice for diseases; and know which drugs have potentially fatal side effects.

Credit: 3 semester hours

Course Director: [Ramachandr Reddy](#)

Course Offered: Fall 1, Terms 2, 3

Pharmacology II (PAPRM-62811)

This course continues the study of the mechanisms of action of drugs in different therapeutic classes and their effects on the pathophysiology of disease states under treatment.

Credit: 2 semester hours

Course Director: [Ramachandr Reddy](#)

Course Offered: Spring 1, Term 1

Physical Diagnosis I (PAPHD-66601)

The first semester of this course focuses on developing skills to perform a complete history and physical examination on patients over the spectrum of ages and clinical situations that a physician assistant may encounter in clinical practice. The learning experiences emphasize the principles, skills, routines and special tests appropriate for the assessment of disease involving the cardiovascular and respiratory systems. A secondary aim of this course is the development of skills in formulating an appropriate diagnosis and treatment plan derived from information taken in the history and identified from the physical exam. The course will stress the accurate presentation of information in both written and oral forms.

Credit: 6 semester hours

Course Director: [Stephanie DeSandro](#)

Course Offered: Fall 1, Terms 1, 2, 3

Physical Diagnosis II (PAPHD-63611)

The second semester continues to develop skills in performing a complete and problem-specific history and physical examination on patients over the spectrum of ages and clinical situations. The learning experiences focus upon the principles, skills, routines and special tests appropriate for the assessment of diseases involving the eyes, ears, nose, throat, gastrointestinal, genitourinary, dermatological, musculoskeletal, and nervous systems. This semester will continue the development of an appropriate differential diagnosis and plan for the further evaluation and management of an identified problem with accurate presentation of information in both written and oral forms.

Credit: 3 semester hours

Course Director: [Stephanie DeSandro](#)

Course Offered: Spring 1, Terms 1, 2, 3

Problem Solving in Medicine I (PAPSM-61901)

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This course assist students develop their skills at differential diagnosis and problem identification through the integration of information presented in the Clinical Medicine and Physical Diagnosis courses. Multiple critical thinking sessions using team learning techniques are used to explore problems involving the heart, lungs, abdomen, kidney and lower urinary tract.

Credit: 1 semester hour

Course Director: [Carl Fasser](#)

Course Offered: Fall 1, Term 3

Problem Solving in Medicine II (PAPSM-62911)

This course assist students develop their skills at differential diagnosis and problem identification through the integration of information presented in the Clinical Medicine, Physical Diagnosis and Diagnostic Testing courses. Multiple critical thinking sessions using team learning techniques are used to explore problems involving the musculoskeletal, special sensory, central and peripheral nervous systems, and the hematopoietic system.

Credit: 2 semester hours

Course Director: [Carl Fasser](#)

Course Offered: Spring 1, Terms 1, 2, 3

Professional Role Issues I (PAPRI-62411)

This three-block course provides students a historical perspective of the evolving professional, clinical, and intra-professional roles carried out by physician assistants through a study of the organizational, political, legal and socioeconomic forces that have and continue to shape the profession.

Credit: 2 semester hours

Course Director: Carl Fasser

Course Offered: Spring 1, Terms 1, 2, 3

Spanish Elective (PASPEN-62441)

This language workshop provides students with the knowledge and skills required to conduct and interview and physical examination of a person with Spanish as the primary language.

Credit: 3 semester hours

Course Director: Guadalupe Quintanilla

Course Offered: Summer 1

Clinical Course Descriptions

Cultural Competency II (PACC-71521)

This course builds on the students' cultural awareness and sensitivity in dealing with patients from different cultures through the exploration of personal bias, communication styles, belief systems, health care practices, family roles, and their impact on the clinical encounter using the skill of crucial reflection.

Credit: 1 semester hours

Course Director: [Carl Fasser](#)

Course Offered: Fall 2, Spring 2, and Fall 3

Emergency Medicine (PAERM-74681)

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The core Emergency Medicine rotation provides an in-depth exposure to the illnesses and injuries sustained by children and adults that necessitate emergency care. The educational experiences emphasize the focusing of interview and examination skills and performing of techniques and procedures essential to the proper management of surgical illness and injury.

Credit: 4 semester hours

Course Directors: [Tyson Pillow](#), [Tiffany Patterson](#), and [Stephanie DeSandro](#)

Course Offered: Fall 2, Spring 2

Internal Medicine – Inpatient (PAIMI-78621)

During this core rotation the student will learn to apply basic medical knowledge to the evaluation of problems encountered on a general medicine service. The formulation of an understanding of the various medical disorders in specific patients is accomplished during the accurate collection of data, the identification of problems, and the development of a plan for each problem. The student likewise learns to view the patient in a broader context because of the emphasis given to the emotional and social needs of the individual.

Credit: 8 semester hours

Course Directors: [Jagadeesh Kalavar](#) and [Alexandria Fornerette](#)

Course Offered: Fall 2 and Spring 2

Internal Medicine – Outpatient (PAIMO-74631)

During this core rotation the student will learn to apply basic medical knowledge to the evaluation of problems encountered in an ambulatory clinic. The formulation of an understanding of the various medical disorders in specific patients is accomplished during the accurate collection of data, the identification of problems, and the development of a plan for each problem. The student likewise learns to view the patient in a broader context because of the emphasis given to the emotional and social needs of the individual.

Credit: 4 semester hours

Course Directors: [Katherine Erdman Sarah Keyes](#)

Course Offered: Fall 2 and Spring 2

Obstetrics and Gynecology (PAGYN-74641)

The core OB/GYN rotation exposes students to the spectrum of problems and issues associated with women's health care primarily in an ambulatory setting. The learning experiences emphasize family planning and birth control, sexually transmitted disease recognition and treatment, cancer detection, prenatal care, the evaluation of common gynecologic problems, and offer exposures to delivery and the surgical management of GYN disorders.

Credit: 4 semester hours

Course Directors: [Susan Raine](#) and [Elissa Love](#)

Course Offered: Fall 2 and Spring 2

Pediatrics – Inpatient (PAPDI-74751)

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During this core rotation the student learns to apply basic medical knowledge and skills to the evaluation of problems encountered on a general pediatric service. The emphasis in this setting is on the provision of secondary and tertiary care to a child from birth through adolescence.

Credit: 4 semester hours

Course Directors: [Graciela Villarreal](#) and [Elizabeth Elliott](#)

Course Offered: Fall 2 and Spring 2

Pediatrics – Outpatient (PAPDO-74761)

During this core rotation the student learns to apply basic medical knowledge and skills to the evaluation of problems encountered in an ambulatory pediatric practice. The emphasis in this setting is on the provision of primary and secondary care to a child from birth through adolescence.

Credit: 4 semester hours

Course Directors: [Elizabeth Elliott](#)

Course Offered: Fall 2 and Spring 2

Professional Role Issues II (PAPRI-71511)

This course introduces students to jurisprudence and professional practice issues. Through lectures, seminars, and individual assignments the student will learn about the healthcare marketplace, Texas medical jurisprudence, risk management, and professional practice issues to include employment and credentialing, insurance reimbursement, and medical coding. The course also addresses the alternative roles played by PAs in the community and the therapeutic uses for common drugs.

Credit: 1 semester hour

Course Director: [Sarah Keyes](#)

Course Offered: Fall 2, Spring 2, and Fall 3

Psychiatry (PAPSY-74671)

This core rotation is designed to provide an understanding of the behavioral components of health, disease and disability. Exposure to patients with a variety of emotional illnesses and disabilities are used to develop informed history taking and mental status examination skills abilities to recognize and categorize psychiatric disturbances and techniques of early intervention and psychiatric referral.

Credit: 4 semester hours

Course Director: [Ali Abbas Asghar-Ali](#) and [Vicki Waters](#)

Course Offered: Fall 2 and Spring 2

Surgery (PASUR-74691)

This core rotation provides an orientation to patients of various ages with surgically manageable disease. The emphasis of the learning experiences are on the preoperative evaluation and preparation of patients for surgery; assistance during the intra-operative period to develop an understanding of team member roles and operative procedures; and the care of surgical wounds and post-operative complications.

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Credit: 4 semester hours

Course Director: [Brad Scott](#) and [Stephanie DeSandro](#)

Course Offered: Fall 2 and Spring 2

Research I (PARS1-74531)

The first research seminar expands upon design issues addressed in the research methods course with particular attention paid to the identification of literature search strategies for each student's Masters Paper Project, selection of works to be included in various sections of the Master's Paper, clarification of questions surrounding data collection and strategies of analysis, and generation of the first draft of the paper and final poster through the methods section. All students are required to make a formal presentation of their research to the seminar group for review and comment.

Credit: 4 semester hours

Course Director: [David Johnson](#)

Course Offered: Spring 2 and Fall 3

Research II (PARS2-74541)

The second research seminar involves continuing review of the drafted paper narrative with particular attention to the results of the data analysis and a discussion of the implications of the findings. Students are required to present the results of their research to the group for review and comment and complete the outline for their subsequent poster presentation during the annual research day.

Credit: 4 semester hours

Course Director: [David Johnson](#)

Course Offered: Spring 2 and Fall 3

Master's Paper (PAMPP-74800)

Improving patient care outcomes and promoting patient safety in practice require that PAs be able to engage in critical analysis of their own practice experiences in the context of existing policies and procedures and best evidence. The intent of the longitudinal Master's Paper Project is to prepare entry-level PAs to function in this manner. To complete the Master's Paper, students will use information technology to access and manage critical information, apply knowledge of study designs and statistical methods to appraise clinical information addressing diagnostic and therapeutic effectiveness, and integrate evidence from scientific studies related to the needs of panels of patients, target populations, or the broader community.

Credit: 4 semester hours

Course Directors: [David Johnson](#) and [Carl Fasser](#)

Course Offered: Throughout every month of each academic year.

Community Family Medicine (PACFM-78731)

This applied integration core rotation provides an exposure to the principles and practices of community-oriented primary care with an emphasis on disease prevention and health maintenance in adults as well as the opportunity to further techniques in history taking, physical examination, and health behavior counseling. Students also gain insight to the socio-environmental factors effecting the provision of healthcare services.

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Credit: 8 semester hours

Course Directors: [Brian Reed](#) and [Elissa Love](#)

Course Offered: Spring 2 and Fall 3

Geriatrics (PAGER-74721)

This advanced clinical core rotation provides an opportunity to apply knowledge of the physiological, behavioral, psychological and sociological changes associated with aging to the multidimensional assessment of elderly individuals. The student acts as a member of an interdisciplinary team of health professionals managing disorders common to older individuals with particular attention to the maintenance of autonomy across alternative care settings.

Credit: 4 semester hours

Course Directors: [George Taffet](#) and [Roseann Dust](#)

Course Offered: Fall 2, Spring 2 and Fall 3

Physical Medicine and Rehabilitation (PAPMR-74781)

This clinical core rotation emphasizes medical rehabilitation in the adult population to enhance maintenance of independence in daily personal care and ambulatory household and community activities. It is designed to enable the student to develop skills in the examination of the spine and extremities; develop knowledge of basic kinesiology and biomechanics; and to begin to understand techniques of dynamic assessment. The student will perform comprehensive exams of the neurologic, muscular and skeletal system in young, mature and older adults while learning about the unique aspects of medical care of persons with major trauma, traumatic brain injury, amputation, and spinal cord injury.

Credit: 4 semester hours

Course Directors: [V. Wasters](#)

Course Offered: Spring 2 and Fall 3