Course Descriptions

Didactic Year Courses (YEAR 1)

CLSC 5227: Clinical Laboratory Methods [1-3]
Lecture and laboratory course that introduces the student to the medical laboratory. Emphasizes appropriate laboratory studies for specific disease, normal laboratory values and procedures for obtaining samples. Students are given the opportunity to perform routine lab studies.
Prerequisites: Admission into the Physician Assistant Studies Program.

PHAS 5101: Studies in the PA Profession [1-0]
Examines the history and concept of the physician assistant profession. Discusses issues that are relevant to professional and legal practice. Discussion of future trends in the profession is also included.
Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5109: Medical Physiology & Pathophysiology III [1-]
This course is the third in a three-course series. Clinical correlations support concurrent modular coursework involving the diagnosis and treatment of disease. This course is a continuation of PHAS 5308, Medical Physiology and Pathophysiology II.
Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5112: Health Policy and Health Management [1-0]
This course will survey the U.S. health care delivery system and review the economic and policy issues that face our system. Particular focus will be on those issues that directly affect the practicing physician assistant. The student will undertake an in-depth review of managed care, reimbursement and other economic/financial issues and policies.
Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5114: Research & Statistical Methods in Health [1-0]
Philosophy and principles of research process with emphasis on scientific methods of inquiry. Topics include epidemiology and its relevance to clinical practice, types of research designs, sampling, measurements, data collection and analysis. Students will have the opportunity evaluate current literature from the medical journals in the light of research design and data collection.
Prerequisite: Admission into the Physician Assistant Studies Program.
PHAS 5116: Electrocardiography Seminar

This seminar covers implementation and interpretation of electrocardiograms (ECG). The ECG interpretation section provides students with a systematic method of interpreting a 12-lead ECG with respect to rate, rhythm and blocks, electrical axis determination, hypertrophy, ischemia, injury, infarction, and miscellaneous drug, electrolyte, disease, and pacemaker effects. In addition, students will be required to successfully complete an Advanced Cardiac Life Support (A.C.L.S.) training course. 
Prerequisite: Admission into the Physician Assistant Studies Program and PHAS 5301, 5307, 5124.

PHAS 5117: Evidence-Based Medicine and Research Design

This course introduces students to the concepts of evidence based medicine and medical research design, while stressing the examination of evidence from clinical research as a basis for clinical decision-making. Physician assistant students learn how to construct well-built clinical questions based on patient problems and to perform medical literature searching strategies that yield optimal results. Methods for critically appraising the medical literature are emphasized throughout the course, as well as strategies for keeping up with new medical findings beyond physician assistant school. Basic techniques of medical writing are also discussed in relationship to the physician assistant student’s development of a Master’s project upon graduation.
Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5118: Legal and Ethical Issues in Health Care

Explores medical jurisprudence and licensing. Students will be introduced to the dynamics of the legal system, moral problems in health care, and the impact of both on professional and institutional interactions with patients. Students will be given opportunity to demonstrate 1) an understanding of ethical principles and legal factors which impinge upon health care, 2) the ability to apply ethical and legal concepts to the analysis of the roles and responsibilities of the health professional.
Prerequisite: Admission into the Physician Assistant Studies Program and PHAS 5101.

PHAS 5137: Preventative Medicine and Community Health

Examines the bio-demographics of disease in the United States. Emphasis is on prevention from the perspective of the primary health care provider. Encourages community involvement. Discussions focused on prevention of disease. Special attention is given to the local medical practices and beliefs of the Rio Grande Valley and Texas-Mexico border region. Guest lectures include topics in rural and indigent health, community outreach, communicable disease awareness and prevention, sexual health, and folk and alternative medicine.
Prerequisite: Admission into the Physician Assistant Studies Program.
PHAS 5201: Medical Human Anatomy & Radiology I

This course is the first in a two-course series. It provides students with a comprehensive and advanced review of gross anatomy using a regional systematic approach to the human body. Basic and advanced radiographic interpretation is correlated with anatomical structure. Lecture and laboratory components of this course emphasize the clinical relevance of each area considered. Human cadavers and computer-assisted learning modules are utilized in the laboratory setting. Clinical correlations support concurrent modular coursework involving the diagnosis and treatment of disease. This course is a continuation of PHAS 5201, Medical Human Anatomy & Radiology I.

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5202: Medical Human Anatomy & Radiology II

This course is the second in a two-course series. Clinical correlations support concurrent modular coursework involving the diagnosis and treatment of disease.

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5230: Pharmacology III

This course is the third in a three-course series. Clinical correlations support concurrent modular coursework involving the diagnosis and treatment of disease. This course is a continuation of PHAS 5329, Pharmacology II.

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5262: Clinical Clerkship

This course covers the indications, contraindications, step-by-step procedures, and potential complications of multiple hands-on skills that are commonly performed by physician assistants in clinical practice. Examples include: phlebotomy, injections, IV therapy, urethral and nasogastric catheterization, pulmonary function testing, suturing, casting and splinting, various ENT procedures, and use of various types of monitoring devices and restraints. Students will have an opportunity to scrub, gown, and glove in an operating room environment. This course also covers documenting in the medical record.

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5306: Medical Physiology & Pathophysiology I

This course provides a systematic approach to the physiologic basis for disease. The general pathology of cell injury, inflammation, infection, and neoplastic diseases are presented along with the disease processes of organ systems including the gastrointestinal, cardiovascular, respiratory, endocrine, dermatological, and hematological systems. General concepts of disease are covered, including degeneration and necrosis, inflammation and repair, fluid and coagulation disturbances,
and general aspects of neoplastic conditions. Disease entities in each organ system are studied with regard to causation, evaluation, and morphology of pathological changes. 

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5307: Medical Physiology and Pathophysiology II [3-0]

This course provides a systematic approach to the physiologic basis for disease. The general pathology is presented along with the disease processes of systems including the gastrointestinal, neurologic, renal, urinary, reproductive, musculoskeletal, and immunological systems. Disease entities in each organ system are studied with regard to causation, evaluation, and morphology of pathological changes. This course is a complement of PHAS 5306, Medical Physiology and Pathophysiology I.

Prerequisite: Admission into the Physician Assistant Studies Program and PHAS 5306.

PHAS 5326: Patient Encounter I [2-3]

This course is the first in a two-course series. It provides students with an introduction to medical history-taking and physical examination. Emphasis is placed on the normal adult patient. A patient-centered philosophy of health communication is used as a framework for obtaining the medical history. Physical examination of the patient is approached using a systematic model. Basic principles of documentation and presentation of subjective and objective findings in professional healthcare settings is introduced. The laboratory setting employs clinical scenarios, case studies, simulated patients, and role-play situations as opportunities to practice the application of skills and techniques. Incremental course content builds a foundation for the development of clinical reasoning skills necessary to formulate differential diagnoses. Students are assessed using written, verbal, and practical exercises.

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5326: Patient Encounter I [2-3]

This course is the second in a two-course series. It extends students’ basic knowledge of history-taking and physical examination to more complex levels of understanding and application. Emphasis is placed on special populations and the abnormal patient with patient-centered and systematic frameworks. Patient education is introduced as an important part of health literacy and patient empowerment. Implications of culture, religion, adversity, and difficult situations on both subjective and objective data collection from the patient are discussed. Students continue to develop more advanced levels of clinical reasoning by applying concepts to real patients in clinical assignments followed by documenting, presenting, and practicing clinical decision-making in an apprentice format. The laboratory setting employs clinical scenarios, case studies, simulated patient, and role-play situations as opportunities to practice the application of skills and techniques. Students are assessed using written, verbal, and practical exercises. This course is a continuation of PHAS 5326, Patient Encounter I.

Prerequisite: Admission into the Physician Assistant Studies Program.
PHAS 5328: Pharmacology I [3-0]

This course represents a broad survey of the general principles of pharmacology. Included are the principles of pharmacokinetics and pharmacodynamics, the mechanisms of action, toxicities and interactions of specific drugs and drug groups, and an introduction to medical therapeutics. The physiologic basis and clinical characteristics of disease states relative to pharmacologic therapy will also be discussed. The objective of the course is to lay cognitive foundation in pharmacology and therapeutics that can be refined and applied in clinic practice. Promotes the ability to recognize untoward side effects of medications. Enables the student to calculate dosages, write prescriptions, discuss pharmacokinetics, and determine the appropriate medication for a particular disease. Emphasis is placed on pharmacotherapeutics of disease.

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5329: Pharmacology II [3-0]

The physiologic basis and clinical characteristics of disease states relative to pharmacologic therapy will be discussed. The objective of the course is to lay cognitive foundation in pharmacology and therapeutics that can be refined and applied in clinic practice to the common disease encounter in primary care. Treatment modalities including dosing and drug interactions will be discussed.

Prerequisite: Admission into the Physician Assistant Studies Program and PHAS 5328

PHAS 5401: Clinical Medicine I [4-0]

This is the first of three didactic clinical medicine courses. 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 modular approach. The course will also provide opportunity for students to demonstrate, in preparation for the major clinical year, the ability to work collaboratively, to apply their knowledge and solve clinical problems. Instructional methods include lectures to provide the core knowledge, case-based small group discussion, team-based learning exercises, and independent readings. The course structure and content is closely related and aligned to the concurrent courses in the curriculum. Problem solving and medical decision-making will be emphasized.

Prerequisite: Admission into the Physician Assistant Studies Program.

PHAS 5402: Clinical Medicine II [4-0]

This is the second of three didactic clinical medicine courses. This course is a continuation of PHAS 5401, Clinical Medicine I.

Prerequisite: Admission into the Physician Assistant Studies Program.
This is the third of three didactic clinical medicine courses. This course is a continuation of PHAS 5402, Clinical Medicine II.

*Prerequisite: Admission into the Physician Assistant Studies Program.*

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**Course Descriptions**

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<td><strong>PHAS 6431: Pediatric Rotation I</strong></td>
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This is a four-week general pediatric rotation that gives the student the opportunity to 1) elicit and record a complete pediatric history; 2) perform a complete examination; 3) formulate a management plan for common pediatric problems; 4) perform selected screening, diagnostic and treatment procedures as directed by the assigned preceptor;
5) advise and educate patients and their parents or guardians regarding optimal health of the child; and 6) monitor pediatric milestones.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6432: Pediatric Rotation II [0-0-4]

This is a four-week general pediatric rotation that focuses on applying the knowledge gained in the Pediatric I rotation and focuses in increasing the core competencies of medical knowledge, patient care, and practice based-learning in the area of pediatrics.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6433: Obstetrics and Gynecology Rotation [0-0-4]

This is a four-week obstetrics and gynecology rotation that gives the student the opportunity to: 1) elicit, organize, record and present a complete data base on an obstetric or gynecologic patient; 2) assist the physician effectively in procedures unique to the discipline; 3) advise the obstetric patient in pre and post-natal care; 4) instruct patients on matters of common gynecological problems.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6435: Surgery Rotation [0-0-4]

This four-week supervised clinical course provides the student with hands-on experience in the operating room setting. Both pre-operative and post-operative assessment and care will be emphasized. The student will be assigned to a general surgeon in private practice, where, under supervision, he/she engages in a wide variety of activities in each phase of surgical intervention: pre-operative, operative, and post-operative recovery. The student is given opportunities to explore the basic considerations involved in the fluid, electrolyte, and nutritional management of the surgical patient, infections, wound healing, and wound care. Students participate in daily rounds, conferences, and serve on call.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6436: Surgery Rotation II [0-0-4]

This is a four-week surgery rotation in orthopedics surgery. The rotation will focus on outpatient and inpatient care of common orthopedic problems. The student will gain competence in evaluating pre and post-op patient care.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6440: Medicine Rotation I [0-0-4]
This is a four-week general medicine rotation that gives the student the opportunity to: 1) elicit, organize, and record necessary data; 2) present data in a comprehensive or problem-oriented fashion; 3) order or recommend appropriate laboratory, radiologic or other diagnostic studies; 4) formulate a management plan for a particular patient problem; 5) follow patient progress by record review and periodic examination; 6) assist the physician in appropriate procedures; 7) advise and educate the patient about health maintenance issues; and 8) understand and establish emergency medical care when necessary. Students will be exposed to a variety of patients and medical conditions, such as infectious diseases, respiratory diseases, cardiovascular diseases, and psychiatric conditions.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6441: Medicine Rotation II [0-0-4]

This is a four-week primary care medicine rotation that focuses on applying the knowledge gained in the Medicine I rotation and focuses in increasing the core competencies of medical knowledge, patient care, and practice based-learning in the area of primary care.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6442: Emergency Medicine [0-0-4]

This is a four-week rotation that allows the student to develop skills in managing patients in the emergency room setting. These skills include those necessary for appropriate triage, stabilization, and initial management of patients with traumatic injuries and illnesses, the management of the less life-threatening problems that present to the emergency room, working with the pre-hospital emergency medical service team, and making appropriate secondary referrals. Where possible, students participate in grand rounds, noon conferences and other clinically relevant didactic presentations. A set of cognitive objectives guides student reading in preparation for a written examination at the end of the rotation.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

PHAS 6443: Clinical Elective [0-0-4]

This four-week elective rotation gives the student the opportunity to: 1) understand and manage complex problems in the particular discipline chosen; 2) understand how additional knowledge and skills can be beneficial in the primary care setting; 3) understand how to be a better server in a primary care setting. This course may include extended clinical care hours, emergency or hospital and community service as deemed appropriate by the assigned preceptor.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.
PHAS 6444: Psychiatry Rotation [0-0-4]

This is a four-week clinical rotation that gives the student the opportunity to understand, diagnose, and treat patients with psychiatric disorders. Students conduct diagnostic interviews and perform comprehensive mental status examinations. In addition, this rotation exposes the student to a team-based approach for patient care. They learn to work with multidisciplinary teams to provide psychiatric treatment in inpatient, consult/liaison, outpatient, and emergency room settings.

Prerequisite: Successful completion of the didactic PHAS professional curriculum.

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Course Descriptions

PHAS 7204: Capstone Research Experience [2-0]

This course is designed to enable graduate-level physician assistant students to apply knowledge, concepts, and skills learned in previous education (PHAS 5117 - Evidence-Based Medicine and Medical Research Design). Physician Assistant students research
and prepare a written paper on a topic of relevance to clinical medicine using the principles of evidence-based medicine. Students utilize data gathered during PHAS 7401, 7402, and 7403 to plan, formulate, write and report their findings. 

*Prerequisite: Completion of both Didactic and Clinical Year courses including PHAS 5117.*

**PHAS 7205: Capstone Board Review**

[2-0]

This course offers the physician assistant student a seminar designed for the synthesis of didactic and clinical education and training as it applies to preparation for the Physician Assistant National Certification Examination (PANCE). Test taking skills and strategy are discussed. Students are evaluated using a simulated PANCE examination. Students must successfully complete the simulated PANCE examination in order to be certified to take the national PANCE examination. 

*Prerequisite: Completion of both Didactic and Clinical Year courses or with permission from department.*

**PHAS 7401: Capstone Clinical Track I**

[4-0]

This is an advanced clinical course designed to augment and update the existing clinical skills and knowledge of the primary care Physician Assistant. Learning objectives will focus on increasing the core competencies for the PA profession with focus on the medical knowledge competency in the area of medical concentration track the student has chosen. 

*Prerequisite: Completion of both Didactic and Clinical Year courses.*

**PHAS 7402: Capstone Clinical Track II**

[4-0]

This is an advanced clinical course designed to augment and update the existing clinical skills and knowledge of the primary care Physician Assistant. Upon completing this course, students will be able to understand and clinically apply the core competencies of interpersonal and communication skills as well as patient care in the area of medical concentration track the student has chosen. Evaluation of advanced case studies and discussions highlight this area of concentration. 

*Prerequisite: Completion of both Didactic and Clinical Year courses.*

**PHAS 7403: Capstone Clinical Track III**

[4-0]

This is an advanced clinical course designed to augment and update the existing clinical skills and knowledge of the primary care Physician Assistant. Upon completing this course, students will be able to understand and clinically apply practice base and system base practice competencies in the area of medical concentration track the student has chosen. Evaluation of “best practice” case studies and discussions highlight this area of concentration. 

*Prerequisite: Completion of both Didactic and Clinical Year courses.*
PHAS 7415: Bridge Clinical Track I

This is an advanced clinical course designed to augment and update the existing clinical skills and knowledge of the primary care Physician Assistant. Learning objectives will focus on increasing the core competencies for the PA profession with focus on the
medical knowledge competency in the area of medical concentration track the student has chosen.
*Prerequisite: Acceptance to Bridge program. Note: Only Bridge program students are eligible for this course.*

**PHAS 7416: Bridge Clinical Track II**

This is an advanced clinical course designed to augment and update the existing clinical skills and knowledge of the primary care Physician Assistant. Upon completing this course, students will be able to understand and clinically apply the core competencies of interpersonal and communication skills as well as patient care in the area of medical concentration track the student has chosen. Evaluation of advanced case studies and discussions highlight this area of concentration.
*Prerequisite: Acceptance to Bridge program. Note: Only Bridge program students are eligible for this course.*

**PHAS 7417: Bridge Clinical Track III**

This is an advanced clinical course designed to augment and update the existing clinical skills and knowledge of the primary care Physician Assistant. Upon completing this course, students will be able to understand and clinically apply practice base and system base practice competencies in the area of medical concentration track the student has chosen. Evaluation of “best practice” case studies and discussions highlight this area of concentration.
*Prerequisite: Acceptance to Bridge program. Note: Only Bridge program students are eligible for this course.*

**PHAS 7418: Bridge Research Experience**

This course acquaints the student with the philosophy and principles of the research process with emphasis on scientific methods of inquiry. Students will have the opportunity to evaluate current literature from the medical journals in light of research design and data collection. This course introduces student to the concepts of evidence-based medicine and medical research design, while stressing the examination of evidence from clinical research as a basis for clinical decision-making. Physician Assistant students learn how to construct well-built clinical questions based on patient problems and to perform medical literature searching strategies that yield optimal results. As a capstone, students research and prepare a written paper on a topic of relevance to clinical medicine using the principles of evidence-based medicine. Students utilize data gathered during their clinical Track I, II, and III senior capstone (PHAS 7415, 7417, and 7418) to plan, formulate, write and report their findings.
*Prerequisite: Acceptance to Bridge program. Note: Only Bridge program students are eligible for this course.*