

PHYSICIAN ASSISTANT (PHYA)

Course Description

PHYA 501 — Pharmacologic Concepts and Pharmacotherapeutics

This course is the first in a series of five that provide the physician assistant student with a broad survey of the basic principles of pharmacokinetics, pharmacodynamics and pharmacotherapeutics. This course reviews the mechanism(s) of action, toxicities and interactions of specific drugs and drug classes, as well as providing the students with an introduction to clinical therapeutics. Clinical therapeutics incorporates the physiologic basis and clinical characteristics of disease states relative to pharmacological therapy. Lectures are designed to develop the pharmacologic and therapeutic skills that a physician assistant will need to enhance patient care in clinical practice, focusing on the following specialty areas: pain management, ophthalmic and otic medications, antibiotics, and respiratory tract infections.

2 credits

PHYA 502 — Human Gross Anatomy

This course constitutes a comprehensive consideration of human anatomy using a regional approach to the human body. The lecture component of the course consists of a detailed explanation and clarification of the relevant anatomy including general principles and concepts, with a strong emphasis on the clinical relevance of each anatomical region considered. The laboratory component of the course consists of examination of dissected and/or prosected cadavers, cadaver dissection by small groups of students, examination of plastinated specimens, models, X-rays, cross sections, bones, and appropriate videos of human dissection and clinical procedures.

6 credits

PHYA 503 — History Taking and Physical Exam

This course is designed to provide students with the fundamental cognitive knowledge of interviewing, patient communication skills, and general physical examination procedures that are necessary to conduct an appropriate and thorough medical interview and comprehensive physical examination for patients of all ages. Students will develop these patient interview and communication skills and general physical examination procedures through classroom work, lab work, and structured clinical experiences with standardized patients under simulated conditions. Digital recording capabilities will allow students to review their clinical performance. Small group learning activities will be facilitated by faculty.

6 credits

PHYA 510 — Clinical Medicine I

This course is the first in a sequence of four courses that are designed to prepare physician assistant students for their professional clinical role. Students continue to develop and refine their patient communication, medical history taking and physical examination skills. This course provides the student with a body-system and problem oriented approach to understanding the etiology, epidemiology, pathophysiology, clinical manifestations, laboratory and diagnostic studies, diagnosis, and treatment of specific diseases encountered in general practice. Health

care providers will discuss specific focused physical examinations of each body-system. Health promotion, disease prevention, medical nutrition, the genetic basis of disease, rehabilitative care, and patient education relevant to each disease is also covered. Students demonstrate knowledge of certain medical instruments and proficiency in selected procedures. Students will orally present patient data as well as document patient information through the use of our standardized patient lab, clinical seminars, and clinical skills labs. The specific specialty areas and body-systems covered include lab medicine, endocrinology, otorhinolaryngology, gastroenterology, introduction to ophthalmology, and pulmonology.

8 credits

PHYA 511 — Clinical Medicine II

This course is the second in a sequence of four courses that are designed to prepare physician assistant students for their professional clinical role. Students continue to develop and refine their patient communication, medical history taking and physical examination skills. This course provides the student with a body-system and problem oriented approach to understanding the etiology, epidemiology, pathophysiology, clinical manifestations, laboratory and diagnostic studies, diagnosis, and treatment of specific diseases encountered in general practice. Health care providers will discuss specific focused physical examinations of each body-system. Health promotion, disease prevention, medical nutrition, the genetic basis of disease, rehabilitative care, and patient education relevant to each disease is also covered. Students demonstrate knowledge of certain medical instruments and proficiency in selected procedures. Students will orally present patient data as well as document patient information through the use of our standardized patient lab, clinical seminars, and clinical skills labs. The specific specialty areas and body-systems covered include cardiology, hematology, neurology, orthopedics, and rheumatology.

8 credits

PHYA 512 — Clinical Medicine III

This course is the third in a sequence of four courses that is designed to prepare physician assistant students for their professional clinical role. Students continue to develop and refine their patient communication, medical history taking and physical examination skills. This sequence of courses provides the student with a body-system and problem oriented approach to understanding the etiology, epidemiology, pathophysiology, clinical manifestations, laboratory and diagnostic studies, diagnosis, and treatment of specific diseases encountered in general practice. Health care providers will discuss specific focused physical examinations of each body-system. Health promotion, disease prevention, medical nutrition, the genetic basis of disease, rehabilitative care, and patient education relevant to each disease is also covered. Students demonstrate knowledge of certain medical instruments and proficiency in selected procedures. Students will orally present patient data as well as document patient information through the use of our standardized patient lab, clinical seminars, and clinical skills labs. The specific specialty areas and body systems covered include obstetrics and gynecology, dermatology, urology, nephrology, and infectious diseases.

8 credits

PHYA 513 — Clinical Medicine IV

This course is the fourth in a sequence of four courses that is designed to prepare physician assistant students for their professional clinical role.

Students continue to develop and refine their patient communication, medical history taking and physical examination skills. This sequence of courses provides the student with a body-system and problem oriented approach to understanding the etiology, epidemiology, pathophysiology, clinical manifestations, laboratory and diagnostic studies, diagnosis, and treatment of specific diseases encountered in general practice, general surgery, general pediatrics, and the emergency room. Health care providers will discuss specific focused physical examinations of each body-system. Health promotion, disease prevention, medical nutrition, the genetic basis of disease, rehabilitative care, and patient education relevant to each disease is also covered. Students demonstrate knowledge of certain medical instruments and proficiency in selected procedures. Students will orally present patient data as well as document patient information through the use of our standardized patient lab, clinical seminars, and clinical skills labs. The specific specialty areas and body systems covered include pediatrics, geriatrics, emergency medicine, and surgery. Students are certified in Basic Life Support and in Advanced Cardiac Life Support.

7 credits

PHYA 514 – Professional Practice Issues and Health Policy

This course will expose students to many of the principles and practices of health policy. It will include consideration of the impact of socioeconomic issues affecting health care, an overview of selected aspects of the various health care systems, and financial and productivity issues relevant to the PA profession. Quality assurance, risk management, managed care environments, coding and billing, and other issues pertinent to current health care practice will be discussed. Students will learn about cultural issues and their impact on health policy. Also covered in this course are the history, development and current status of the physician assistant profession in the U.S. medical system in the 21st century as well as the political and legal issues related to PA practice. This course presents overviews of PA professional organizations, PA program accreditation, and certification and recertification of PAs. The interrelated issues of licensure, credentialing and professional liability are also covered.

2 credits

PHYA 515 – Medicine, Law, and Health Care Ethics

This course is presented to provide physician assistant students with an understanding of basic medical law, public health policy, and medical ethics. Lectures in medical ethics and law/medical jurisprudence are presented to provide students with a basic understanding of the legal obligations and ethical responsibilities of the health care provider. This course presents the fundamentals of death/dying decisions, commitment to patient welfare, and respect for self and others. This course also covers topics of consent to treat, privacy and confidentiality issues, organ donation, and hospice and palliative care. In addition, impaired provider identification and referral resources are discussed.

1 credit

PHYA 519 – Human Physiology

This course is designed to provide a comprehensive review of normal human physiology using a regional approach to the human body. The lecture component of this course will consist of a detailed explanation and clarification of the relevant physiology, including general principles and concepts, with a strong emphasis on the clinical relevance of each

area considered. An introductory self-study medical terminology section will also be presented.

4 credits

PHYA 520 – Pharmacology I

This course is the second in a sequence of five courses that represent a broad survey of the basic principles of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. This course reviews the mechanism(s) of action, toxicities and interactions of specific drugs and drug classes, and provides the students with a foundation to apply the principles of clinical therapeutics. Clinical therapeutics incorporates the physiologic basis and clinical characteristics of disease states relative to pharmacologic therapy. Lectures are designed to develop the pharmacologic and therapeutic skills that a physician assistant will need to enhance patient care in clinical practice, focusing on the following specialty areas: gastroenterology, endocrinology, and pulmonology.

2 credits

PHYA 521 – Pharmacology II

This course is the third in a sequence of five courses that represent a broad survey of the basic principles of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. This course reviews the mechanism(s) of action, toxicities and interactions of specific drugs and drug classes, and provides the students with a foundation to apply the principles of clinical therapeutics. Clinical therapeutics incorporates the physiologic basis and clinical characteristics of disease states relative to pharmacologic therapy. Lectures are designed to develop the pharmacologic and therapeutic skills that a physician assistant will need to enhance patient care in clinical practice, focusing on the following specialty areas: hematology, neurology, cardiology, and rheumatology.

2 credits

PHYA 522 – Pharmacology III

This course is the fourth in a sequence of five courses that represent a broad survey of the basic principles of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. This course reviews the mechanism(s) of action, toxicities and interactions of specific drugs and drug classes, and provides the students with a foundation to apply the principles of clinical therapeutics. Clinical therapeutics incorporates the physiologic basis and clinical characteristics of disease states relative to pharmacologic therapy. Lectures are designed to develop the pharmacologic and therapeutic skills that a physician assistant will need to enhance patient care in clinical practice, focusing on the following specialty areas: gynecology, infectious diseases, urology, nephrology, and comprehensive dosing.

2 credits

PHYA 523 – Pharmacology IV

This course is the fifth in a sequence of five courses that represent a broad survey of the basic principles of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. This course reviews the mechanism(s) of action, toxicities and interactions of specific drugs and drug classes, and provides the students with a foundation to apply the principles of clinical therapeutics. Clinical therapeutics incorporates the physiologic basis and clinical characteristics of disease states relative to pharmacologic therapy. Lectures are designed to develop the pharmacologic and therapeutic skills that a physician assistant will need

to enhance patient care in clinical practice, focusing on the following specialty areas: psychiatry, pediatrics, and geriatrics.

1 credit

PHYA 530 — Behavioral Medicine and Psychiatry

The primary goal of this course is to provide the physician assistant student with the necessary skills, knowledge, and sensitivity to effectively manage various psychiatric, emotional, and behavioral issues common to patients in primary care settings. Students will be able to outline skills in coping with illness, injury, and stress. Students will gain skills in the evaluation and management of patients with a variety of psychiatric problems and develop an appreciation for the health care team as it applies to the mental health patient.

1 credit

PHYA 531 — Community Health Service

This course provides students an opportunity to interface with community-based agencies and become familiar with diverse communities. Challenges encountered by various diverse communities and resources available to these communities are discussed. This course allows students to develop a better understanding of how social, environmental, and cultural factors can impact patients' attitudes about health. Throughout this course, students learn the importance of collaboration when developing relevant and effective health care interventions.

2 credits

PHYA 534 — Introduction to Pathogenesis and Clinical Genetics

This course is the first in a sequence of four courses that provides the student with a basic understanding of the nature and mechanisms of disease from a pathologic view. This course will lay a foundation in the pathogenesis of disease, which is the foundation of critical thinking in clinical practice. Topics to be covered include cellular injury, death and repair, inflammation, immunodeficiencies, and neoplastic growth. Additionally, the PA student will be introduced to concepts of clinical genetics, patterns of inheritance, utility of genetic family history in practice, recognizing genetic contribution to disease, genetic screening, pre-symptomatic testing, and diagnostic testing.

1 credit

PHYA 535 — Pathophysiology I

This course is the second in a sequence of four courses that provides the student with a basic understanding of the nature and mechanisms of disease from a pathologic view. This study of pathophysiology provides understanding of the nature and mechanisms of disease, which is the foundation for critical thinking in clinical practice. This sequence of courses provides a systematic approach to the pathophysiologic basis for disease. Lectures are focused on the disease processes of the following organ systems: pulmonology, gastroenterology, and endocrinology.

2 credits

PHYA 536 — Pathophysiology II

This course is the third in a sequence of four courses that provides the student with a basic understanding of the nature and mechanisms of disease from a pathologic view. This study of pathophysiology provides

understanding of the nature and mechanisms of disease, which is the foundation for critical thinking in clinical practice. This sequence of courses provides a systematic approach to the pathophysiologic basis for disease. Lectures are focused on the disease processes of the following organ systems: cardiology, neurology, hematology, and orthopedics.

1 credit

PHYA 537 — Pathophysiology III

This course is the fourth in a sequence of four courses that provides the student with a basic understanding of the nature and mechanisms of disease from a pathologic view. This study of pathophysiology provides understanding of the nature and mechanisms of disease, which is the foundation for critical thinking in clinical practice. This sequence of courses provides a systematic approach to the pathophysiologic basis for disease. Lectures are focused on the disease processes of the following organ systems: nephrology and reproductive systems.

1 credit

PHYA 542 — Research Methods

This course introduces students to fundamental concepts of epidemiology and research design in health and disease. Principles of evidence-based medicine as they relate to key areas of disease prevention, health promotion, and therapy are discussed. This course will enable students to understand and apply basic statistical terms and applications and recognize different research design models that appear in current medical literature. Students learn principles to consider when assessing the quality of medical literature.

2 credits

PHYA 543 — Evidence Based Medicine

This course addresses the importance of evidence based medicine as it relates to treatment strategies of disorders commonly treated by PAs. Key concepts on methods to search the literature and read and critically appraise the medical literature are covered. Students work in small groups to develop an EBM style clinical question, appraise the literature, and present their findings. Class sessions are interactive and prepare students for the Research Practicum course completed during the clinical phase of the program.

2 credits

INDP 100 — Interprofessional Seminar

Students work in small groups with students from other academic programs to learn the value of different healthcare providers in delivering patient care.

0 credits

PHYA 549 — Radiology for the Physician Assistant

This course is an introduction to the field of radiology designed to provide the physician assistant student with basic knowledge of the use and interpretation of a variety of radiographic studies. Through interactive technology, lectures, and case-based problems, students will learn to interpret a variety of diagnostic modalities and understand their use in daily clinical practice.

3 credits

PHYA 550 — Family Medicine Preceptorship

This five-week preceptorship is intended to augment and strengthen the student's skills in developing a comprehensive database and a systematic approach to common family medicine problems. Emphasis is placed on generating the information and skills to enable the student to recognize normal findings and assess clinically significant deviations from normal. Students perform patient histories and physical examinations, obtain diagnostic testing and present the data to their preceptor(s) with a proposed differential diagnosis and treatment plan. This preceptorship will assist the student in learning the indications, limitations, and methodology of family medicine procedures and therapeutic strategies. Students function in a role similar to the intended role of a practicing physician assistant. Where possible, students participate in grand rounds, noon conferences and clinically relevant didactic presentations. A set of learning objectives guides student reading in preparation for a written examination at the end of the preceptorship.

8 credits

PHYA 551 — Internal Medicine Preceptorship

This is a five-week preceptorship that is intended to augment and strengthen the student's skills in developing a comprehensive database and a systematic approach to common internal medicine problems. Emphasis is placed on generating the information and skills to enable the student to recognize normal findings and assess clinically significant deviations from normal. Students perform patient histories and physical examinations, obtain diagnostic testing and present the data to their preceptor(s) with a proposed differential diagnosis and treatment plan. This preceptorship will assist the student in learning the indications, limitations, and methodology of internal medicine procedures and therapeutic strategies. Students function in a role similar to the intended role of a practicing physician assistant. Where possible, students participate in grand rounds, noon conferences and clinically relevant didactic presentations. A set of learning objectives guides student reading in preparation for a written examination at the end of the preceptorship.

8 credits

PHYA 553 — Emergency Medicine Preceptorship

This is a five-week preceptorship that allows the students to augment and strengthen their skills in developing a comprehensive database and a systematic approach to common emergency medicine problems. Emphasis is placed on generating the information and skills to enable the student to recognize normal findings and assess clinically significant deviations from normal. Students will perform appropriate clinical evaluation including focused patient history and physical examinations, obtain diagnostic testing and present the data to their preceptor(s) with a proposed differential diagnosis and treatment plan. Students will gain skills that include those necessary for appropriate triage, stabilization of patients with traumatic injuries and illnesses, the management of 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 learning objectives guides student reading in preparation for a written examination at the end of the preceptorship.

8 credits

PHYA 554 — Gynecology/Prenatal Preceptorship

This is a five-week preceptorship that is intended to augment and strengthen student skills in developing a comprehensive database and a systematic approach to common problems seen in prenatal and gynecology practice. Emphasis is placed on generating the information and skills to enable the student to recognize normal findings and assess clinically significant deviations from normal. Students will perform appropriate clinical evaluation including focused patient history and physical examinations, obtain diagnostic testing, and present the data to their preceptor(s) with a proposed differential diagnosis and treatment plan. This preceptorship teaches the student the indications, limitations, and methodology of prenatal and gynecologic procedures and therapeutic strategies. Students will also receive experience in managing common outpatient gynecology problems, gynecologic diagnostic techniques and therapy, family planning, and techniques for the early detection of gynecologic cancer. A set of learning objectives guides student reading in preparation for a written examination at the end of the preceptorship.

8 credits

PHYA 555 — General Surgery Preceptorship

This five-week surgical preceptorship augments and strengthens student skills in developing a comprehensive database and a systematic approach to common problems in general surgery. Students perform appropriate clinical evaluation including comprehensive surgical history and physical examinations, obtain diagnostic testing, and present the data to their preceptor(s) with a proposed differential diagnosis and treatment plan. Students assist in surgical procedures in the operating room, the diagnostic evaluation of surgical patients, and with preoperative and postoperative care with the ambulatory care of surgical patients. Proficiency is to be developed in suturing, incision and drainage, excision and the biopsy of simple wounds and lesions. Where possible, students participate in grand rounds, noon conferences and other clinically relevant didactic presentations. A set of learning objectives guides student reading in preparation for a written examination at the end of the preceptorship.

8 credits

PHYA 556 — Behavioral Medicine Preceptorship

This five-week behavioral medicine preceptorship augments and strengthens student skills in developing a comprehensive database and a systematic approach to common problems in behavioral medicine. It involves experiences that allow students to develop skills in the evaluation and management of patients with a variety of psychiatric and addiction problems. The use of pharmacotherapy and the role of psychotherapy in psychiatry are explored. Where possible, students participate in grand rounds, conferences and other clinically relevant didactic presentations. A set of learning objectives guides student reading in preparation for a written examination at the end of the preceptorship.

8 credits

PHYA 557 — Pediatrics Preceptorship

This is a five-week preceptorship that provides exposure to a patient population ranging from neonates to late adolescents. This preceptorship will augment and strengthen student skills in developing

a comprehensive database and a systematic approach to common problems in pediatrics. Emphasis is placed on generating the information and skills to enable the student to recognize normal findings and assess clinically significant deviations from normal. Students will perform appropriate clinical evaluation including comprehensive history and physical examinations, obtain diagnostic testing, and present the data to their preceptor(s) with a proposed differential diagnosis and treatment plan. The student will have an intense exposure to primary care pediatric problems with the objective of developing skills in well-child preventive care, the care of common pediatric illnesses, and the care of the newborn. These experiences are primarily obtained in the outpatient setting. A set of learning objectives guides student reading in preparation for a written examination at the end of the preceptorship.

8 credits

PHYA 558 – Elective Preceptorship I

This is a four-week preceptorship that offers students an opportunity to complete an elective in a medical specialty of their choice. Students select a clinical area for their elective preceptorship with the approval of the clinical faculty. Individualized learning objectives for the students' elective rotation are developed. Students are responsible for an oral presentation regarding a specific health care topic at the end of their elective preceptorship.

6 credits

PHYA 559 – Elective Preceptorship II

This is a four-week preceptorship that offers students an opportunity to complete an elective in a medical specialty of their choice. Students select a clinical area for their elective preceptorship with the approval of the clinical faculty. Individualized learning objectives for the students' elective rotation are developed. Students are responsible for an oral presentation regarding a specific health care topic at the end of their elective preceptorship.

6 credits

PHYA 560 – Research Practicum

This is a longitudinal course completed during the clinical phase of the program. PA students will use the knowledge acquired in prior information literacy courses to propose a clinically relevant question in a medical discipline relevant to PA practice. Students will search the medical literature to select the best quality literature available on the topic of interest, critically appraise the medical literature, summarize their findings in the writing of a master thesis paper, present their findings to classmates and faculty.

2 credits

PHYA 562 – Comprehensive Exam Review

This course is intended to review and assess the student's knowledge of core competencies. On Senior Fridays, students engage in focused activities designed to prepare them for their next preceptorship. It also includes an extensive board review style lecture series. Summative exams in this course involve directed standardized patient encounters, a standardized computer-based comprehensive examination, and clinical skills testing.

3 credits