

USING THIS BULLETIN

Changes to the College of Medicine Bulletin

COURSES ADDED: EFFECTIVE Summer 2023

- MED 759: Oral Anticoagulants
- OBGYN 724: Preparation for Internship in Obstetrics and Gynecology
- OBGYN 725: Labor and Delivery elective
- OBGYN 741: Urogynecology Ob/Gyn Elective
- PED 756: Adolescent Medicine Elective

Courses Added: Effective Fall 2023

- CONSD 722: Phase I Consolidation Course
- SHS 712: Science of Health Systems

Courses Added: Effective Spring 2024

- EMED 753: Preparation for Internship in Emergency Medicine Elective
- HMN 700: Humanities Seminar Selective
- MDADM 730: Complex Interdisciplinary Ambulatory Care
- MDADM 741: Community-Based Advocacy Elective

COURSES Changes: EFFECTIVE SUMMER 2023

PAS 701: The Structural Basis of Clinical Practice (6 Credits) Old Listing Effective Through Spring 2023:

This course provides an understanding for the structural basis for clinical practice. This understanding, in turn, enables efficacious treatment. There are approximately 160 hours of instruction equally divided between the classroom presentations and laboratory dissections. Evaluation of the student will be by both written and practical examinations. Each of four content regions of anatomy have a written examination and a laboratory examination; each worth 100 points. Thus, there are a total of 800 points available. Each written examination is approximately 80% handwritten essay and 20% short answer. The laboratory examination is 100% based on 50 structural identifications. Laboratory identifications are freshly dissected. The goal for each examination is to provide additional learning within the context of assessment. The course content is divided into four regions; 1) lower limb and back, 2) upper limb and thorax, 3) abdomen pelvis and perineum, and 4) head and neck. Approximately 160 hours of instruction are equally divided between classroom presentations and laboratory dissections. The student to cadaver ratio for dissection in the laboratory is four to one. Laboratory sessions are attended by graduate students, basic science faculty, and clinical science faculty. Access to the dissection laboratory is available 24 hours per day and seven days per week. In addition to foundational human anatomy, each content region includes presentations augmented by embryology, central nervous system, radiology, and clinical correlations. - Embryology. Incorporated into each classroom presentation is an account of the embryology giving rise to the fully developed anatomy studied in the laboratory. - Central Nervous System. Students have the unique opportunity to remove the brain from the cranium, hold the human brain in their hands, and study the surface anatomy of the brain and spinal cord. Students have the opportunity to dissect the brain and spinal cord to further gain an appreciation for fiber tracts and nuclei. - Radiology. Clinical faculty from the Department of Radiology lead case base instruction for each of the content regions. These clinical presentations total approximately eight hours of instruction. - Clinical Correlations. Clinical faculty lead case based instruction for each of the content regions. These clinical

presentations total approximately 16 hours of instruction. This course will be offered during the summer and fall semester for the physician assistant student in the Penn State College of Medicine Physician Assistant Program. Expected enrollment is for 30 students in this class cohort.

Changes Effective Summer 2023:

- Title
- Abbreviated Title
- Credits
- Description

PAS 702: Applied Human Structure and Function II (2 Credits) Old Listing Effective Through Spring 2023:

Course will discuss the clinically relevant anatomy and structural information necessary for clinical practice emphasizing surface anatomy and surface markings. PAS 702 Applied Human Structure and Function II (2) Course will discuss the clinically relevant anatomy and structural information necessary for clinical practice emphasizing surface anatomy and surface markings. The practical application of anatomical information to clinical medicine is covered by using case studies via team-based learning in anatomy. Clinical problems requiring anatomical knowledge for their solution are presented during each case conference session. Lectures and laboratories cover the embryonic development of the human body and the relationship to structure and function. Cadaver dissection will be utilized to reinforce the position of these anatomy structures so that clinical relevance can be elicited. Course objectives: At the completion of this course, the student will be able to: - Describe the normal anatomy and physiology as it relates to infectious disease, neurology, dermatology, ophthalmology, otolaryngology, rheumatology, general surgery, and musculoskeletal disease - Use surface anatomy as the basis for the physical examination. - Identify normal and abnormal structures on dissection and discuss how abnormalities in human anatomy can impact health and disease states with regard infectious disease, neurology, dermatology, ophthalmology, otolaryngology, rheumatology, general surgery, and musculoskeletal disease - Explain the relationship between anatomic structure and function and how this relates to health and disease. - Discuss the clinical relevance between anatomy and function. Methods of instruction will include: (1) lecture, (2) discussion, (3) demonstration, (4) audiovisual materials, (5) case studies, (6) dissection laboratories. The audiovisual materials will be in the form of Primal Anatomy (Penn State has already purchased) and the Netter Anatomy Atlas (available via Harrell Library). Classes will be held in C1847 every Wednesday from 1-5 pm Wednesdays and Fridays from 3-5 pm throughout the semester. There may be adjustments to these class sections, depending upon topics under discussion. The dissection of the musculoskeletal system will occur at the regularly scheduled and announced dissection times per mutual schedule agreement between the College of Medicine and the Physician Assistant Program. These dissections will typically occur in the morning hours over 4 days per week for two weeks during this semester. The topics covered in this class will correspond to the topic areas in the clinical medicine integrated class, namely infectious disease, neurology, dermatology, ophthalmology, otolaryngology, rheumatology, general surgery, and musculoskeletal disease Evaluation strategies will include multiple choice examinations, practical laboratory examinations, and tests which involve the identification of structures and their function. This class is offered during the second semester (fall semester) of the Physician Assistant Program and will be offered yearly. Since this class is intended

to prepare these students for their role as practicing physician assistants, this class will be focused on this group of students.

Prerequisite: PAS 701 , PAS 705 , PAS 708 , PAS 711 , PAS 714 , PAS 717 , PAS 723

Changes Effective Summer 2023:

- Abbreviated Title
- Credits
- Description

PAS 730: Medical Ethics (1 Credit)

Old Listing Effective Through Spring 2023:

This course aims to introduce students to a variety of ethical problems that arise in the practice of medicine. PAS 730 Medical Ethics (1) This course aims to introduce students to a variety of ethical problems that arise in the practice of medicine. This course will also introduce ethics methods - in other words, how do you do ethics in a systematic fashion that will increase the probability of arriving at right answers? The goal is to apply a systematic framework to ethical dilemmas in order to de-mystify the process and empower students to reach their own right answers. At the conclusion of the course, student will be able to - Recognize common ethical issues they are likely to face, and consider the issue within the larger context of a moral method - Demonstrate an ability to anticipate and avoid ethical problems - Resolve ethical dilemmas using moral methods This course aims to accomplish four primary goals. First, I want to begin to improve your critical thinking skills. This is partly accomplished by assigning readings that address various topics and issues that are relevant and then engaging them in directed classroom discussion of those readings and subjects. Second, through class discussion I want to expose and familiarize you with an interactive Socratic style of classroom activity in which the goal is shared exploration of the topics rather than a passive lecture-style classroom. Along with improving critical thinking, this allows us to practice and improve our ability to articulate, discuss and debate ideas aloud (ie, interpersonal and team interaction skills). Third, you will become more familiar with some of the basic concepts, issues, arguments and cases in medical ethics.

Prerequisite: Completion of Summer and Fall semesters; Concurrent: PAS 703, PAS 706 , PAS 709 , PAS 712 , PAS 715 , PAS 718

Changes Effective Summer 2023:

- Title
- Abbreviated Title
- Credits
- Concurrent

PAS 745: Women's Health I (5 Credits)

Old Listing Effective Through Spring 2023:

PAS 745 Women's Health Rotation is a mandatory clinical rotation that will prepare students to provide high quality care while treating the female population from the teenage patient through the geriatric female. 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.

Changes Effective Summer 2023:

- Title
- Abbreviated Title

PAS 766: Urgent Care I Rotation (4 Credits)

Old Listing Effective Through Spring 2023:

PAS 766 Urgent care I is an optional course that falls under the ambulatory care rotation which involves the evaluation and management of patients who present for care in an urgent care setting. Students will gain experience in their ability to stabilize, evaluate, and manage patients in an urgent care setting. Students will gain proficiency in identifying patients with clinical presentations that need immediate attention and those conditions which can be treated in a less urgent manner. Students will gain an appreciation of how care is delivered in an urgent care setting which has significant differences from the care that is rendered in other health care settings, for example, the immediate availability of clinical interventions such as diagnostic imaging, electrocardiography, laboratory studies, and the availability of consultants such as surgeons and trauma personnel. Students will gain an appreciation of how urgent care departments function in the overall delivery of health care services within the US Health care delivery system. Students will be able to apply knowledge and skills from the pre-clinical curriculum to these patients who often have complex and urgent health care needs. Students will also gain exposure to the patient care mix for people who are presenting to an urgent care setting and may gain exposure to the typical roles that certified physician assistants play in the delivery of care in this setting.

Prerequisite(s): Completion of Preclinical curriculum courses

Changes Effective Summer 2023:

- Credits

PAS 776: Medicine Specialty Rotation (4 Credits)

Old Listing Effective Through Spring 2023:

The goal of this elective rotation is to give the student additional medical training during the clinical year in a specialty related to their area of interest. During this rotation, the student will develop a fundamental knowledge base in major disease processes in the assigned medical specialty. The will improve upon their clinical decision-making skills and the ability to acquire, interpret, synthesize, and record clinical information required to define, understand, and manage patient problems in the assigned medical specialty. They will improve the skills necessary to present patients to faculty, residents and peers in a clinical setting. In addition, student will continue to work on their interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates. This elective will allow for student exposure to different areas of medicine they may wish to pursue following graduation, and help each student determine their own areas of interest, strengths and weaknesses.

Prerequisite: Penn State Physician Assistant Student in Clinical Education Curriculum. Concurrent: The student will be enrolled in clinical preceptorships during each of the clinical educational semesters.

Changes Effective Summer 2023:

- Credits

PAS 777: Surgical Specialty Rotation (4 Credits)**Old Listing Effective Through Spring 2023:**

The goal of this elective rotation is to give the student additional medical training during the clinical year in a specialty related to their area of interest. During this rotation, the student will develop a fundamental knowledge base in major disease processes in the assigned medical specialty. They will improve upon their clinical decision-making skills and the ability to acquire, interpret, synthesize, and record clinical information required to define, understand, and manage patient problems in the assigned medical specialty. They will improve the skills necessary to present patients to faculty, residents and peers in a clinical setting. In addition, student will continue to work on their interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates. This elective will allow for student exposure to different areas of medicine they may wish to pursue following graduation, and help each student determine their own areas of interest, strengths and weaknesses.

Changes Effective Summer 2023:

- Credits
- Description

PAS 793: Principles of Rheumatology and Orthopaedics (3 Credits)**Old Listing Effective Through Spring 2023:**

This module is part of the series of modules that comprises the PA program didactic curriculum. The Principles of Rheumatology and Musculoskeletal Diseases course provides a disease oriented, problem focused, and patient centered approach to understanding the etiology, pathophysiology, risk factors, clinical manifestations, diagnosis, treatment, and prevention of rheumatologic and musculoskeletal diseases encountered in patients across the lifespan. Content areas in this module include: normal and abnormal anatomy and physiology, pathophysiology, genetic and molecular mechanisms of health and disease, pharmacology, pharmacotherapeutics, evidence-based medical research and advancements in clinical medicine, patient assessment, performance of applicable clinical and technical skills, interpretation of diagnostic and laboratory studies, using clinical reasoning to develop a treatment plan that includes indications for referral and standards for follow-up care, providing patient education, using service learning, and developing techniques for medical record documentation.

Changes Effective Summer 2023:

- Credits
- Description

PED 715: Infectious Disease (5-10 Credits)**Old Listing Effective Through Spring 2023:**

Principles of host defense mechanisms, parasite interactions, manifestations of infections in children, systematic approach to the problem-solving, rational use of antibiotics.

Prerequisite: PED 700 or MED 700 and permission of staff

Changes Effective Summer 2023:

- Title
- Abbreviated Title
- Credits

- Description
- Prerequisite

Course Changes Effective: Fall 2023**CAR 713: Cardiovascular Medicine (1-2 Credits)****Old Listing Effective Through Summer 2023:**

Course provides exposure to basic concepts in histology/pathology, biochemistry, physiology, pharmacology, and clinical medicine related to cardiovascular medicine.

Changes Effective Fall 2023:

- Course Number
- Abbreviated Title
- Credits

ENREP 721: Endocrinology and Reproductive Medicine (6 Credits)**Old Listing Effective Through Summer 2023:**

This is a required course designed to introduce medical students to the essential fundamental principles underlying endocrinology and reproduction. The complex nature of endocrine and reproductive feedback mechanisms requires students to understand and apply critical thinking skills so that they will be able to integrate fundamental scientific knowledge with clinical reasoning skills, preparing them for effective learning in the clinical phase of their education.

These goals include:

- Compare and contrast the regulation of different target organs by the pituitary gland and hypothalamus.
- Discover the role of the thyroid hormones on the metabolic process.
- Describe the role of diabetes and obesity in human health.
- Analyze the normal and abnormal function of the adrenal glands and how these interact with other organ systems.
- Describe the steps of development from embryo to adulthood
- Explain the process of pregnancy and recognize possible abnormalities during this period.
- Discuss the issues related to men's and women's health and predict the differential diagnosis according to specific risk factors.

This course is presented annually during Phase I (Foundational Medical Sciences - the first 18 months of medical school) of the medical school curriculum and is a required course for all medical students. Assessment methods are discussed in paragraph C-2.

Changes Effective Fall 2023:

- Credits

FORM 713: Form and Function (3.5 Credits)**Old Listing Effective Through Summer 2023:**

The Musculoskeletal System Dermatology Rheumatology (MSDR) course aims to give learners an organized educational experience that is broad yet practical, and integrates orthopedic, rheumatologic, and dermatologic diseases. The pathogenesis, recognition of clinical findings, diagnostic procedures and introduction to therapies pertinent to general medical practice will be prominent. Material will complement students' work on clinical skills in Foundations of Patient Centered Care (FPCC) and the concurrent Anatomy course. This course is presented annually during Phase I (Foundational Medical Sciences - the first phase of medical school) of the medical school curriculum and is a required course for

all medical students. Assessment methods are discussed in Evaluation Methods section.

Changes Effective Fall 2023:

- Course Number
- Credits

FPCC 713: Foundations of Patient Centered Care – I (2 Credits)
Old Listing Effective Through Summer 2023:

First semester of a four-part course to learn and apply clinical interviewing and examination skills at the novice level integrated with healthcare practice topics.

Changes Effective Fall 2023:

- Course Number
- Title
- Abbreviated Title

FPCC 714: Foundations of Patient Centered Care – 2 (2 Credits)
Old Listing Effective Through Summer 2023:

Second semester of a four-part course to learn and apply clinical interviewing and examination skills at the advanced beginner level integrated with healthcare practice topics.

Changes Effective Fall 2023:

- Course Number
- Title
- Abbreviated Title

FPCC 723: Foundations of Patient Centered Care – 3 (2 Credits)
Old Listing Effective Through Summer 2023:

Third semester of a four-part course to learn and apply clinical interviewing and examination skills at the competent level integrated with healthcare practice topics.

Changes Effective Fall 2023:

- Course Number
- Title
- Abbreviated Title
- Credits

HDHR 711: Host Defense/Host Response (7.5 Credits)
Old Listing Effective Through Summer 2023:

This course designed to provide the foundation of your lifelong learning about immunology, microbiology, and oncology and incorporates the threads of pharmacology and histology. Throughout this course, we aim to show you how these three domains are linked to each other and to other organ systems, providing different perspectives on how one can think about a host and its defense and response. In addition, we will provide organizing frameworks for longitudinal content that you will return to throughout the curriculum. You will develop critical thinking in immunology, microbiology and oncology in the context of clinical cases and frame a learning pathway in these domains for the remainder of Phase 1. You will elaborate upon and expand your learning through insights into medical research, history, patient stories, and the perspectives of Health Systems Science and the Humanities.

Changes Effective Fall 2023:

- Credits

HMN 716: Observation & Interpretation (2.5 Credits)
Old Listing Effective Through Summer 2023:

Practicing good clinical medicine requires both keen observational skills and careful deductive reasoning. Identification of key pieces of data, recognition of patterns in the data gathered, and interpretation and reinterpretation of both data and patterns, are key components of medical decision-making.*

The purpose of this course is to emphasize the power and importance of observation and interpretation in the practice of medicine. As students prepare to work with patients, O&I provides the opportunity to begin developing competence in these areas without the fear of misdiagnosing or harming a patient. Here, learners will be challenged to refine their observational and analytical skills using works of art—mostly visual art and photography, but also brief writings—and to communicate their impressions and findings to others, a process similar to differential diagnosis. Unlike the goal of arriving at one "correct" answer in medicine, however, this course encourages multiple answers and interpretations. By exploring what various people experience in a piece of art, we come to understand that our own perspectives are limited. Not infrequently, listening to others' observations enables us to comprehend more completely and therefore interpret more accurately. Ideally, experiencing the arts also leads to empathy for others, another fundamental goal of practicing medicine.

Changes Effective Fall 2023:

- Abbreviated Title
- Credits

NBS 723: Neural and Behavioral Science (1-2 Credits)
Old Listing Effective Through Summer 2023:

This course is a multidisciplinary introduction to the human nervous system that integrates both basic sciences and clinical disciplines.

Changes Effective Fall 2023:

- Course Number
- Abbreviated Title
- Credits

REN 713: Renal Medicine (3 Credits)
Old Listing Effective Through Summer 2023:

Course provides exposure to basic concepts in histology/pathology, biochemistry, physiology and clinical medicine related to fluid, electrolyte and acid/base homeostasis.

Changes Effective Fall 2023:

- Course Number
- Abbreviated Title
- Credits

RESP 723: Respiratory Medicine (1-2 Credits)
Old Listing Effective Through Summer 2023:

Introduction to normal and abnormal structure and processes of the respiratory system, principles of therapeutics and factors affecting disease treatment and prevention.

Changes Effective Fall 2023:

- Course Number
- Credits

SHS 711: Science of Health Systems (1-6 Credits)

Old Listing Effective Through Summer 2023:

Students will learn the foundations of health systems through in class instruction and patient navigation clinical site experiences.

Changes Effective Fall 2023:

- Abbreviated Title
- Credits

SHS 721: Science of Health Systems (1-4 Credits)

Old Listing Effective Through Summer 2023:

Students will learn the foundations of health systems through in class instruction and patient navigation clinical site experiences.

Prerequisite: SHS 711

Changes Effective Fall 2023:

- Abbreviated Title
- Credits
- Prerequisite

SPM 711: Scientific Principles of Medicine (15 Credits)

Old Listing Effective Through Summer 2023:

This course provides an introduction to the basic science principles that form a foundation for the study of clinical medicine.

Changes Effective Fall 2023:

- Abbreviated Title
- Credits

TRANS 711: Transition to Medical School (1-2 Credits)

Old Listing Effective Through Summer 2023:

A prologue to the student's medical school experience and an introduction to the medical profession.

Changes Effective Fall 2023:

- Credits

Course Changes Effective: Spring 2024

GI 723: Gastrointestinal Pathophysiology and Nutrition (1 Credit)

Old Listing Effective Through Fall 2023:

Course provides exposure to foundational sciences and clinical medicine relating to the gastrointestinal tract, pancreas, biliary system, and liver, and nutrition.

Changes Effective Spring 2024:

- Course Number
- Abbreviated Title
- Credits

PAS 792: Principles of Neurology (2 Credits)

Old Listing Effective Through Fall 2023:

This module is part of the series of modules that comprises the PA program didactic curriculum. The Principles of Neurology course provides a disease oriented, problem focused, and patient centered approach to understanding the etiology, pathophysiology, risk factors, clinical manifestations, diagnosis, treatment, and prevention of neurologic diseases encountered in patients across the lifespan. Content areas in this module include: normal and abnormal anatomy and physiology, pathophysiology, genetic and molecular mechanisms of health and disease, pharmacology, pharmacotherapeutics, evidence-based medical research and advancements in clinical medicine, patient assessment, performance of applicable clinical and technical skills, interpretation of diagnostic and laboratory studies, using clinical reasoning to develop a treatment plan that includes indications for referral and standards for follow-up care, providing patient education, using service learning, and developing techniques for medical record documentation.

Changes Effective Spring 2024:

- Credits