

Course Catalog

2024/2025

Academic

Year

MISSION STATEMENT

To educate highly qualified, ethical and professional podiatric medical students, who, upon completion of the curriculum, are prepared for licensure and entry into post-graduate medical education; and to advance our profession through quality patient care, community service and research.

VISION STATEMENT

We will graduate Doctors of Podiatric Medicine who are knowledgeable in all systems of the human body and their inter-relations in health and disease who are highly competent in the diagnosis and treatment of lower extremity pathologies.

We will establish the Foot and Ankle Institute as the pre-eminent center of excellence for the diagnosis and treatment of maladies of the lower extremity.

We will increase the body of knowledge of the lower extremity through research, scholarly publication and teaching.

Academic Year 1: Fall Term

General Anatomy: P102

Course Director: Amy Amabile, Ph.D. Associate Professor

Department of Anatomy and Cell Biology

Temple University School of Medicine

Contact Hours: 123

Credit Hours: 7

Definition: This course is a regional study of the gross structures of the human body covering the back, upper limb, thorax, abdomen, pelvis & perineum, and head and neck. Emphasis is on the structure and function of all body systems and the application of this anatomical knowledge to clinical case studies. This course also includes regular exposure to imaging modalities that form a regular part of diagnosis and treatment. The didactic component is delivered by way of clinical case-based conferences, during which there is student participation, and introductory lectures on the regions to be dissected. The lab component involves small group dissections of human cadavers. Emphasis is also placed on professionalism and self-directed learning. Upon completion of this course students should be well prepared for Lower Extremity Anatomy.

Fundamentals of Podiatric Practice I: P130

Course Director: Sabrina Minhas, D.P.M. Clinical Assistant Professor

Contact Hours: 41

Credit Hours: 3.5

Definition: This course is designed to prepare the first-year podiatric medical student for uncomplicated patient and clinical encounters that involve eliciting a history and performing a routine physical examination. Concurrently, the course will also establish a fundamental understanding of podiatric medicine to the student and serve as a foundation upon which to build their career and clinical experience as a podiatric physician. Relevant concepts significant to the practice of podiatric medicine, such as biomechanics and orthopedics will also be introduced, and in doing so, will raise their understanding as they pertain to the diagnosis, etiology, and treatment of podiatric pathologies observed. Introductory clinical practices and exposures will be experienced in order to present and reinforce concepts learned in the classroom through a live, clinical perspective. In addition, demonstrative workshops and other instructional methods will be utilized to enhance retention and presentation of material through a multi-faceted perspective.

Medical Biochemistry: P110

Course Director: Kathleen Giangiacomo, Ph.D. Associate Professor

Contact Hours: 90

Credits: 6

Definition: Medical Biochemistry is the study of the molecular basis of life. This involves analysis of molecular processes which are fundamental for the maintenance of tissues and organs. It also describes conditions that alter metabolic homeostasis and contribute to specific pathology. Medical Biochemistry also presents biochemical events that relate to the art of healing and serves as a foundation for the understanding of other basic science and clinical courses.

Physiology: P111

Course Director: Sean Thatcher, PhD. Associate Professor

Contact Hours: 72

Credit Hours: 5

Definition: Physiology is the science which explores the normal vital processes and mechanisms necessary for life. The breadth & depth of physiology ranges from detailing sub cellular mechanisms, to describing integrated mechanisms at the organ level and finally discussing whole body mechanisms. In this course, human physiology will be the focus in delineating how the human body functions as a living unit. Thus, at the end of the course, students should be able to recognize & understand normal human physiologic mechanisms. Basic patho-physiologic mechanisms will be introduced, where appropriate, to further the students' comprehension of normal Physiology. Such a fundamental understanding is vital. It enables students to better understand the sciences of pathology & pharmacology. This, in turn, provides students with the tools to successfully manage pathophysiologic & pharmacologic processes in their patients.

Neuroanatomy: P105

Course Director: Bill Robinson, Ph.D. Associate Professor

Contact Hours: 21

Credit Hours: 2

Definition: The course involves the study of the structure and function of the central nervous system through an understanding of the principal neural pathways involved in the transmission of information. These pathways include those mediating motor and sensory functions, as well as those serving higher cortical functions such as cognition. The neuroanatomic basis of the neurological examination of a patient and the implications of damage to these pathways will be emphasized. The course will be presented primarily through lectures. In addition, there will be one lab session and several sessions for the discussion of case studies.

Academic Year 1: Spring Term

Biomechanics: P109

Course Director: Ziad Labbad, D.P.M., Clinical Professor

Contact Hours: 20

Credit Hours: 2

Definition: The course reviews skeletal and muscular anatomy and discusses those processes necessary to allow posture and locomotion. The students will identify skeletal features through palpation and use these as references for segment measurement and evaluation of joint range and quality of motion. Instrumented measurements will supplement clinical measurements.

Histology: P100

Course Director: Yuan Gao, Ph.D. Associate Professor

Contact Hours: 112

Credit Hours: 6.25

Definition: This microanatomy course is designed to provide knowledge that leads to an understanding of the organization of cells, tissues and organs, which together generate organ systems. Most importantly, it emphasizes the learning and understanding of structure-function relationships. Clinical correlations are used to teach and connect the basic science facts to clinical relevance. Laboratory slide review sessions (using virtual microscopic observations) promote the study of the structural features of cells, tissues and organs. This basic knowledge is essential to the subsequent understanding of the pathophysiology of organ systems and treatment of diseases. This course also includes a study of Development of the Body Plan and the Fetal Period of development (ninth week to birth). This period of study will include an introduction to Teratology - the study of abnormal development with a particular focus on limb development.

Lower Limb Anatomy: P103

Course Director: Nicole L. Griffin, Ph.D. Associate Professor

Contact Hours: 152

Credit Hours: 7.7

Definition: Lower Extremity Anatomy includes the study of normal structure plus certain common and clinically important variations. It is taught over sixteen weeks, to allow students the opportunity to learn both details of structure and the relationships among the structures of the lower limb. Part of the material is presented systematically and part of it regionally. The subject is taught through both lecture, conference, and dissection.

Upon satisfactory completion of this course, students will be able to accurately describe all major structures of the lower limb, state their relationships, and explain their basic functions. In addition, students will also be able to describe and explain the functional significance of certain common variations in lower extremity anatomy. The students will be able to demonstrate this knowledge by solving basic functional and clinical problems encountered in course examinations.

Medical Microbiology and Immunology: P120

Course Director: Marian M. Chan, Ph.D. Associate Professor

Contact Hours: 86

Credit Hours: 6.8

Definition: The objective of this course is to provide an understanding of the basic principles of microbiology and immunology as it relates to the infectious process caused by microorganisms and primary immunologic disorders. It is taught with an emphasis on those microbes and immunological disorders of particular interest to the practicing podiatrist. At the end of the course students will have a general knowledge on the principles of immunology, including components of the immune system and their interactions in immune responses, diseases related to the immune system, and Immunological methods that can be used to diagnose disease. Students will be able to identify the basic characteristics,

pathogenic properties, mode of transmission, epidemiological presence and methods of diagnosis and prevention of pathogenic bacteria, viruses, fungi and parasites. Students will also learn the importance of maintaining a sanitary environment with an understanding of sources of infection, contagion, and practice of microbial control in office and hospital environments.

Physiology II: P104

Course Director: Sean Thatcher, PhD. Associate Professor

Contact Hours: 37

Credit Hours: 2.5

Definition: Physiology presents a concise description of cell processes and the incorporation of these processes into descriptions of how the nervous system functions. Cell processes include lectures on cell transport systems, osmosis, bioelectric potential development as well as detailed descriptions of how excitable tissues (muscle and nerve) function. These lectures provide fundamental knowledge that is then applied to lectures concerning the integrated functions of the nervous system. In this course, the integrated functions are presented utilizing a basic computer paradigm. This includes functional descriptions of the input from the sensory system (pressure, vision, etc.) to processing by the central nervous system (spinal cord, cerebellum, motor cortex, etc.) and finally the output to muscle effectors. Included are brief descriptions of certain pathophysiologic mechanisms (ex. athetosis, Parkinson's and others) that are useful in describing where normal Physiology can be modified by lesions. All of this gives the student a comprehensive understanding of the Physiology of the nervous system. Such an understanding is, in turn, foundation knowledge upon which case presentations of neurologic pathologies can be comprehended by the students.

Academic Year 2: Fall Term

Foot and Ankle Radiology: P236

Course Director: Ebony Love, D.P.M. Clinical Assistant Professor

Contact Hours: 26

Credit Hours: 2.6

Definition: This course will introduce the podiatric medical student to the scope of diagnostic radiology in 2 sections

RADIOGRAPHY: radiologic sciences (physics, chemistry, and biology); radiation protection and safety; principles of radiography; radiography of the foot and ankle; and, special diagnostic imaging studies.

RADIOGRAPHIC INTERPRETATION AND EVALUATION OF PATHOLOGY: principles of radiographic interpretation; normal and variant radiographic anatomy and development of the foot and ankle; systematic evaluation of bone and joint disorders; and, bone and joint abnormalities.

Introduction to General Podiatric Principles: P250

Course Director: Jennifer Van, D.P.M. Clinical Associate Professor

Contact Hours: 28

Credit Hours: 2.8

Definition: This course will expose the podiatric medical student to various introductory aspects of foot and ankle surgery such as: charting, informed consent, wound healing, wound closure, bone healing, tendon, ligament and nerve healing and repair as well as various technical aspects of surgery such as hemostatic techniques, dressings and a comprehensive overview of the principles and techniques of modern anesthesia and pain management.

Orthopedic Seminar – Casting: P241

Course Director: Ziad Labbad D.P.M. Clinical Professor

Contact Hours: 7

Credit Hours: 1

Definition: Actual casting is demonstrated to the student for pathological traumatic conditions of the lower extremity. Students participate in the casting which provides a basic insight in the handling and application of casting.

Pathology: P221

Course Director: Laura Barry M.D. – Assistant Professor

Contact Hours: 136

Credit Hours: 9

Definition: The pathology course is designed to introduce human diseases and the laboratory to the podiatry students. The students start with general concepts (such as cell responses to injury, inflammation and the basis of neoplasia). They progress into diseases of various systems including those of the GI, hematopoietic, respiratory, renal, nervous, cardiovascular, musculoskeletal systems etc. and also learn about multi-organ diseases. At the same time, they are introduced to the clinical laboratory and the principals of lab testing, quality assurance and choosing the correct tests and its pitfalls. The course is designed to teach topics within section VI, sub-sections A, B and C, of Part 1 of the national board of podiatry examiners (NBPME-I). The course follows the guidelines provided by the American Association of Colleges of Podiatric Medicine (AACPM). The format of the course is through lectures and small group sessions. The required textbook is Robbins Pathologic Basis of Disease. There are approximately 18 faculty members and 12 pathology residents who do the teaching (the residents contribute primarily in small group sessions). There are currently about 110 hours of teaching divided into 5 sessions (terms) with each term having an exam at the end. All exams contribute equally to the final grade.

Pathomechanics: P240

Course Director: Laura Sansosti, D.P.M Clinical Associate Professor

Contact Hours: 32

Credit Hours: 2

Definition: Pathomechanics is a 2nd year course, which reviews single plane osseous and positional deformities of the lower extremity and their effect on normal foot function. It also reviews normal and abnormal gait patterns including phasic muscle activity of the lower extremity muscles. The goal of the course is to provide the student with a thorough approach to normal and abnormal foot function, to enable the student to understand the mechanics of normal and abnormal locomotion, and to enable a logical thought process to develop effective therapeutic options for the management of presented pathology.

Pharmacology: P210

Course Director: Laurel Gorman, Ph.D. Professor of Instruction

Contact Hours: 79

Credit Hours: 5.25

Definition: The course provides basic knowledge of drug action, pharmacokinetic properties of several essential drug classes, with discussion of importance to the practice of podiatry. The course begins with lectures on basic principles of pharmacology followed by presentations on specific categories of drugs. Each lecture covers mechanisms of drug action, pharmacokinetic properties, therapeutic uses and effects, adverse reactions, selected drug-drug interactions, and issues relevant to podiatry.

Sports Medicine Rehabilitation: P248

Course Director: Alicia Canzanese D.P.M. Adjunct Faculty, DPM.

Contact Hours: 20

Credit Hours: 4

Definition: The study of sports medicine is concerned with specific areas of sports and athletics and the relationship of lower extremity mechanics and function on those activities. It also is the study of injury in sports - the mechanisms, types of injuries, treatment, and prevention. This course provides the student with the basic understanding of sports injury and prepares the student for the care and treatment of sports injuries. By combining knowledge of biomechanics, orthotics, primary podiatric care, physical therapy, and traumatology with knowledge of sports, the student will be able to treat the total athlete.

Vascular Disease: P237

Course Director: Samuel Han M.D. Faculty

Contact Hours: 20

Credit Hours: 2

Definition: The course is designed to appreciate normal physiology and the underlying pathophysiology of arterial, venous and lymphatic disease.

Particular will be held on how to recognize and appropriately manage common vascular disorders of the lower extremities. A basic understanding of non-invasive and invasive vascular testing with a focus on the lower extremities will be provided.

Academic Year 2: Spring Term

Clinical Foot Orthopedics: P243

Course Director: James McGuire PT, DPM. Clinical Professor

Contact Hours: 18

Credit Hours: 1.8

Definition: This course examines the assessment, clinical decision making, modeling, fabrication, and application of various lower extremity orthotic and prosthetic devices and shoes in the treatment of biomechanically, medically, and/or neurologically induced weight bearing and gait associated pathologies. Specific aspects of the course include: postural and mechanical assessment, foot and ankle casting techniques, scanning and cadcam technologies, materials and fabrication, fit and functional assessment, problem solving and adjustments, lower extremity orthoses and prostheses, ortho-digital devices, and shoe therapy. Course content is presented in lecture and workshop format using PowerPoint, case studies whenever possible, and hands-on workshops. In addition demonstrations, video, and guest lecturers will be used when appropriate and available.

Dermatology: P230

Course Director: TBD

Contact Hours: 22

Credit Hours: 2.2

Definition: This course provides the podiatric student with basic knowledge of the clinical aspects of dermatology. This course will provide a foundation for the podiatric student to identify, understand, and treat various cutaneous disorders on the lower extremity as well as identify and understand cutaneous disorders affecting the rest of the body.

Fundamentals of Podiatric Practice II: P200

Course Director: Khurram Khan, D.P.M. Clinical Professor and Raquel Perez

Contact Hours: 22

Credit Hours: 2.7

Definition: This course will expand on the material presented in Fundamentals of Podiatric Practice I to prepare podiatric medical students for entry into clinical training by providing advanced instruction in the Lower extremity physical examination and assessment of patients. Because the patient is more than the sum of his/her structural and physiological properties, students will also learn the elements of behavioral science necessary to understand and enhance the complex human interaction that forms the therapeutic alliance in patients with and without mental illness. Proper Documentation/charting requirements will also be reviewed.

Infectious Disease: P239

Course Director: Rafik Samuel, M.D. Adjunct Faculty

Contact Hours: 10

Credit Hours: 1

Definition: This course is a comprehensive lecture series on Infectious Diseases emphasizing lower extremity and systemic pathologies and treatments.

Internal Medicine: P215

Course Director: Ziad Labaad, MD., D.P.M. Clinical Professor

Contact Hours: 42

Credit Hours: 3

Definition: Internal Medicine is the study of the etiology, pathophysiology, clinical signs, symptoms and treatment of a wide variety of illnesses of the human body. Attendance is mandatory unless you are excused. Absence will be reflected in the Class Participation Grade.

Pathophysiology: P222

Course Director: Lesly Robinson, D.P.M. Clinical Associate Professor

Contact Hours: 40

Credit Hours: 3: Pass/Fail

Definition: Pathophysiology is the integrated study of the basic medical sciences. Usage of case studies and clinical vignettes taught in a comprehensive medical team approach will serve to help students better understand basic tenants of the medical sciences which will then help them achieve greater success on boards, rotations and clinical practice in the future.

Clinical Neurology: P336

Course Director: Sami L. Khella M.D. Adjunct Faculty

Contact Hours: 16

Credit Hours: 1.6

Definition: The goal of the course is to familiarize the student with clinical neuroanatomy, pathology, and clinical syndromes likely to be encountered in a podiatric practice.

Perioperative Protocol: P253

Course Director: Thomas Birdwell, DPM. Clinical Associate Professor

Contact Hours: 10

Credit Hours: 1

Definition: 2nd Year Perioperative Protocol (253) is an introductory course consisting of 8 hours lecture format and 4 hours hand on workshop. This course is in the podiatric medical curriculum in order to expose the podiatric medical student to the various introductory aspects of foot surgery, such as informed consent, aseptic technique, blood borne pathogens regulations, regulatory compliance, infection control, patient teaching, office emergencies, podiatric instrumentation, surgical charting and CPR. Students learn how to scrub, gown and glove themselves and others, and the name, classification

and use of the instruments in the bone tray. The focus of the workshop is to practice what they have learned and demonstrate ability to perform the tasks without contaminating themselves or the surgical field.

Principles of Podiatric Surgery II: P252

Course Director: Matthew Rementer, D.P.M. Clinical Associate Professor

Contact Hours: 38

Credit Hours: 2.5

Definition: A comprehensive one-trimester, 4 hours per week course dealing with soft tissue and osseous pathology affecting the foot. The structure and function of the forefoot will be discussed, and patient evaluation and peri-operative management will be described. Emphasis will be placed on specific reconstructive surgical procedures, both historical and currently used, with detailed attention being paid to sound surgical principles, rationale for selection, step-by-step performance, and objective postoperative assessment.

Surgical Skills: P257

Course Director: Andrew J. Meyr, D.P.M. Clinical Professor

Contact Hours: 32

Credit Hours: 2.4

Definition: This is a one trimester course that aims to (1) offer podiatric medical students hands-on experience working towards the development of manual skills common to surgical residency and introductory level podiatric practice, (2) prepare students for the hands-on aspects of clinical rotations and externships and (3) present an overview of common podiatric surgical techniques.

Academic Year 3: Fall Term

Community Health and Law: P360

Course Director: Khurram Khan, D.P.M. Clinical Professor

Contact Hours: 10

Credit Hours: 1

Definition: This course provides a comprehensive and in-depth review of issues pertaining to Public Health, Epidemiology, and Biostatistics. Topics of discussion will include but are not limited to the varying health care models utilized in the United States and abroad, quality assurance, risk management, various models of health care, basic statistics, research development, epidemics, pandemics and law in medicine.

General Orthopedics: P340

Course Director: Ziad Labbad D.P.M. Clinical Professor

Contact Hours: 20

Credit Hours: 2

Definition: The course in general orthopedics provides an overview of common musculoskeletal pathologies above the ankle. Orthopedic pathologies of the spine, knee, hip, shoulder, elbow, wrist and

hand are discussed. Clinical presentation, differential diagnosis, conservative and surgical management are presented. Emphasis is made on pathologies of the lower extremity commonly encountered by podiatric physicians as well as those a podiatrist may be consulted on for management.

Pediatric Foot and Ankle Orthopedics: P342

Course Director: Nicholas J. Pagano, D.P.M. Adjunct Assistant Professor

Credit Hours: 1.8

Definition: The focus of the course in Pediatric Foot and Ankle Orthopedics is to elevate the podiatric medical student in his/her recognition and treatment of the pediatric and adolescent patient. The course will include presentations of the normal and abnormal. The course will present both the conservative orthopedic approach and the surgical procedures needed to address these pediatric foot and ankle disorders. This course is placed into the curriculum for an appreciation, understanding and prevention of adult orthopedic pathology as related to the newborn, infant and adolescent patients.

The course covers the following topics: Examination, History and Physical Examination of the Well Baby, Growth and Development, including Neurological Development, Examination and management of Orthopedic Normals for the entire lower extremity, General Orthopedic disorders and diseases of the Pediatric Patient, Pediatric Foot Deformities and treatment including surgical and bracing and casting techniques, Child Safety and Reporting, and Pharmacology.

Principles of First Ray Surgery: P352

Course Director: Laura Sansosti, D.P.M. Clinical Associate Professor

Contact Hours: 29

Credit Hours: 2.6

Definition: This is a one-trimester, two-hours-per-week lecture course dealing with the etiology, clinical, x-ray criteria and surgical approaches for the correction of hallux valgus deformity, hallux limitus deformity and related conditions. Content to be learned includes the clinical examination of patients with hallux abductus deformity together with the x-ray interpretation of hallux abductus deformity. Also covered is an overview of the most current procedures commonly used for correction of this deformity together with postoperative care and complications which can develop from surgical correction. The method of instruction used will be lectures aided by powerpoint presentations. At the completion of this course, the student will be expected to clinically evaluate patients with 1st metatarsophalangeal joint deformity, Evaluate the same patient with regard to x-ray criteria, logically formulate a treatment plan including surgical procedure, and post-op management and be able to describe surgical procedures used to correct 1st MPJ deformities and be familiar with possible complications of these procedures and their treatment. This course is taught because hallux abductus valgus and hallux rigidus deformity are common forefoot structural abnormalities with which podiatrists must deal. The prerequisite for this course is satisfactory completion of Principles of Digital & Metatarsal Surgery.

Principles of Reconstructive Surgery of the Foot and Leg: P353

Course Director: Jennifer Van, D.P.M. Clinical Associate Professor

Contact Hours: 29

Credit Hours: 2.6

Definition: This is a one-trimester course that offers a comprehensive overview of the major rearfoot, ankle and foot deformities, such as flatfoot, from the standpoint of clinical evaluation and surgical intervention.

Professional Administration and Development: P362

Course Director: Lawrence Levine, D.P.M – Adjunct Faculty

Contact Hours: Seminar

Credit Hours: 1.0: Pass/Fail

Definition: Professional Administration and Development is the study of the art and science of the many facets of podiatric medical practice. The course addresses the practical application of previously learned didactic information so as to enable the student to make intelligent decisions as to practice type, location, finances, third party interrelationship, staffing, and the myriad of factors involved in growing a medical practice. Topics will include motivational introspection, practical guidance, and current crucial issues affecting the business of medicine. Emphasis will also be placed on record keeping, governmental financial obligations, computerization, and other topics based on student needs.

Nowhere in the course of study in podiatric medicine is the student made aware of the fact that all of his/her didactic learning must eventually correlate to the practice of podiatric medicine. The practice of any medical discipline is more and more becoming a business. The person able to plan his/her own destiny will succeed. Others will fail. By evaluating strengths and weaknesses, setting goals and having the ability to relate to patients, the new practitioner will have a maximum chance of success. Early planning and evaluation is essential to the realization of the student's goals and satisfaction with his/her career choice. This course attempts to translate clinical competency to success.

Traumatology: P346

Course Director: Kwasi Kwaadu D.P.M. Clinical Professor

Contact Hours: 20

Credit Hours: 1.75

Definition: The Trauma course is a comprehensive study of the field of foot and ankle trauma. Course material covers the various types of trauma, including initial Emergency department management, soft tissue trauma, and osseous trauma of the lower extremity. Students are exposed to numerous clinical vignettes, scenarios, radiographs, and evidence-based medicine pertaining to the lower extremity trauma. Students are prepared to classify injuries utilizing various commonly utilized trauma classification schemes. Students learn to read a trauma radiograph or advanced imaging study upon completion of the course.