

DOCTOR OF PHYSICAL THERAPY

Courses

DPT 130. Therapeutic Dosing. 3 Hours

This class examines the direct relationship of therapeutic dosage calculations in clinical science professions. Emphasis is on problem solving and dosage calculations routinely practiced in the clinical science professions. Transfer of basic mathematics skills into practical application is a key element of the class.

DPT 805. Functional Physiology I: Introduction to Pathology. 3 Hours

A small group, problem based learning course which focuses on the study of human physiological function of the major organ systems including clinical manifestations associated with pathophysiological conditions. Introduction of applied physiology and exercise physiology concepts in musculoskeletal, cardiovascular, and pulmonary function. Foundations of pharmacokinetics and pharmacodynamics are also studied in this course.

DPT 806. Functional Physiology II: Exercise Physiology. 2 Hours

Advanced concepts of applied physiology and exercise physiology concepts in musculoskeletal, cardiovascular, and pulmonary function are studied.

DPT 807. Wellness, Health, and Promotion in Physical Therapy. 2 Hours

This course focuses on the role of the physical therapist in health promotion, wellness, and prevention. The purpose of the course is to gain an understanding of fundamental concepts of health, wellness, screening for risk, and the theoretical bases underlying behavior change. These concepts will be applied to improving health and wellness in oneself. Using him or herself as the first patient, the student will learn how to assess risk for specific conditions, generate goals to decrease risk and increase health and wellness, develop and implement a plan to achieve his or her goals, and assess the results. Class sessions will be primarily small group discussion and lecture.

DPT 810. Professional Seminar I: Health Care. 2 Hours

Provides a comparative overview of health care systems and the role of physical therapy. Students learn about the APTA and the development of professional behaviors as they work on personal strategies for integration into the profession. Learning styles are presented and discussed within the context of clinical practice and professional development.

DPT 811. Professional Seminar II: Clinical Practice. 2 Hours

Designed to introduce the student to clinical practice. Students learn professional communication and documentation skills. Topics include the medical record, personnel supervision, scheduling, legal and ethical issues including sexual harassment, and the cost of service delivery.

DPT 815. Human Gross Anatomy. 4 Hours

Comprehensive course with lecture and human cadaver dissection, emphasizing the skeletal, muscle, and nervous systems. The aim is to provide a solid morphological basis for a synthesis of anatomy, physiology, and the physical therapy clinical sciences. The lab section involves dissection and identification of structures in the cadaver and the study of charts, models, radiographic anatomy, and projected materials.

DPT 818. Neuroscience. 4 Hours

Comprehensive course utilizing lecture and active learning methodologies, including labs covering neuroanatomy and physiology of the central, peripheral, and autonomic nervous systems as they pertain to normal somatic function. Basic disease families are introduced.

DPT 820. Movement Science. 3 Hours

Lecture-based course which integrates anatomy, biomechanics, and clinical theory related to normal and abnormal movement and function of the spine, trunk, and appendicular muscular system.

DPT 821. Introduction to Clinical Examination. 3 Hours

This course covers the essential components for conducting a physical therapy examination. Students learn basic examination skills such as taking a patient history and assessing pain, vital signs, posture, limb girth, sensation, reflexes and general function and fitness. The course emphasizes tests to measure joint motion (goniometry) and muscle strength (manual muscle testing).

DPT 825. Clinical Science V: Current Technology. 2 Hours

Designed to present the general principles of pharmacology in relation to physical therapy practice. Basic concepts of drug therapy, nomenclature, and drug safety are introduced. Pharmacokinetic principles including drug administration, absorption, distribution, action, and interaction are reviewed as they relate to physical therapy and rehabilitation.

DPT 840. Clinical Science I: Tissue Injury & Repair. 3 Hours

This course presents basic principles of tissue injury, inflammation, healing, repair, and regeneration as related to physical therapy rehabilitation. Medical and specific surgical interventions are identified to provide the clinical presentation and intervention strategies for given dysfunctions. It will introduce concepts associated with the principles, practical application, and effects of therapeutic exercise in relation to the human movement system. The basic skills of clinical interventions are introduced with relation to physical therapy.

DPT 841. Clinical Science II: Introduction to Medical Diagnostics. 2 Hours

Designed to provide knowledge and the appropriate screening tools necessary for examining and intervening with clients in the physical therapy setting. The medical examination/evaluation is presented including the patient interview, identification of red flags or risk factors, symptom investigation, and review of systems. Medical diagnostic modalities are discussed with focus on radiology, MRI, CT, diagnostic US, and EMG.

DPT 842. Clinical Science III: Modalities I. 1 Hour

A comprehensive course including lab principles and practice of physical therapy modalities with focus on thermotherapy, cryotherapy and electrotherapy procedures. Problem-solving approach to clinical decision making is integrated into the application of modalities, including hydrotherapy, aquatic therapy, superficial and deep heat modalities, cold modalities, and electrotherapy procedures in patient populations across the life span.

DPT 846. Maturation Science I. 3 Hours

Comprehensive course including clinical lab, which is designed to examine human development and maturation from conception to aging. Emphasis is placed on the recognition of appropriate neurological, cognitive, motor, and psychosocial characteristics related to various states of growth, development, and maturation.

DPT 847. Maturation Science II. 1 Hour

Continuation of DPT 846 with further study of the maturational influences on therapeutic intervention. Students learn clinical examination and reasoning skills required for physical therapy intervention throughout the life span. Students are introduced to congenital developmental and age-related pathologies.

DPT 910. Professional Seminar II: Leadership & Management. 3 Hours

A seminar course with increased emphasis on business and management principles. Students will be asked to correlate didactic information learned to this point with information obtained from clinical fieldwork. Documentation review will be performed with emphasis on the management perspective. Updates on healthcare reform and impact on physical therapy as a business will be a focus area. Students will learn self-marketing techniques to optimize the employment search. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 911. Professional Seminar IV: Business & Marketing. 1 Hour

Seminar course designed to help the student formulate strategies for professional assessment and development post-graduation. Topics include professional values and responsibilities, expanding your professional options, continuing education, specialty certification, and advanced degrees. Each student participates in a comprehensive program evaluation and does a formal presentation of the graduate project. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 951. Clinical Rotation I: General Medicine. 4 Hours

Six-week clinical rotation in general medicine to provide full-time clinical exposure, allowing students to integrate current knowledge and training with supervised patient care. Emphasis on continued development of clinical reasoning along with identification and utilization of appropriate clinical resources. Prerequisite(s): Successful completion of all coursework that precedes the rotation.

DPT 952. Clinical Rotation II: Neurology. 4 Hours

This eight-week clinical rotation in rehabilitation will provide full-time clinical exposure, allowing the student to integrate current knowledge and training with supervised patient care. Emphasis is on the continued development of clinical skills and reasoning, along with the development of interpersonal skills as a member of the health care team. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 953. Clinical Rotation III: Orthopedics. 6 Hours

This 12-week clinical rotation in orthopedics/sports medicine will provide full-time clinical exposure, allowing the student to integrate current knowledge and training with supervised patient care. Emphasis is on the continued development of clinical skills and reasoning, with increasing responsibility for independent decision making and clinical interaction. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 954. Clinical Rotation IV: Contract Clinical. 6 Hours

This final clinical rotation is designed to allow the student to continue developing clinical skills and reasoning in an area of special interest. Increasing independence in clinical practice is expected, with increased clinical responsibilities in the areas of program development and implementation, as well as administration and clinical management to include staff supervision. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 971. Examination and Intervention: General Medicine I. 4 Hours

This course is designed to facilitate skill acquisition along with clinical reasoning and decision making related to physical therapy care and management of patients with general medicine pathology. Students learn physical therapy examination tests and measures and therapeutic interventions using a variety of teaching methods including direct instruction, inquiry-based learning and cooperative learning. Co-requisite(s): DPT 961, DPT 981.

DPT 972. Examination and Intervention: General Medicine II. 3 Hours

This course is designed to facilitate advanced skill acquisition along with advanced clinical reasoning and decision making related to physical therapy care and management of patients with general medicine pathology. Students learn physical therapy examination tests and measures and therapeutic interventions using a variety of teaching methods including direct instruction, inquiry-based learning and cooperative learning. Co-requisite(s): DPT 962, DPT 982.

DPT 973. Examination and Intervention: Neurology I. 6 Hours

This course is designed to facilitate skill acquisition along with clinical reasoning and decision making related to physical therapy care and management of patients with neurologic pathology. Students learn physical therapy examination tests and measures and therapeutic interventions using a variety of teaching methods including direct instruction, inquiry-based learning and cooperative learning. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 974. Examination and Intervention: Neurology II. 4 Hours

This course is designed to facilitate skill acquisition along with clinical reasoning and decision making related to physical therapy care and management of patients with pediatric pathology. Students learn physical therapy examination tests and measures and therapeutic interventions using a variety of teaching methods including direct instruction, inquiry-based learning and cooperative learning.

DPT 975. Examination and Intervention: Orthopedics I. 6 Hours

Course description is currently unavailable. This laboratory course is designed to help the student develop clinical skills and reasoning essential to the examination, evaluation, and physical therapy intervention of orthopedic patients. Emphasis is focused on clinical reasoning and clinical skill development as they apply to common extremity and spine pathologies. Skills include: examination techniques, use of modalities, therapeutic exercise, soft tissue techniques, mechanical traction, and articular mobilization. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum. Corequisite(s): DPT 985.

DPT 976. Examination and Intervention: Orthopedics II. 4 Hours

This course is designed to facilitate skill acquisition along with clinical reasoning and decision making as it relates to the physical therapy care and management of orthopedic patients with complex musculoskeletal pathology and dysfunction. Students learn physical examination tests and measures along with therapeutic interventions including electrotherapy modalities appropriate for this population. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 977. Examination and Intervention: Advanced Physical Therapy I. 4 Hours

This course is designed to facilitate skill acquisition along with clinical reasoning and decision making as it relates to the physical therapy care and management of various advanced topics including cardiopulmonary rehabilitation, women's health issues, manual therapy strategies, electrotherapeutics as well as orthopedic, neurological, and pediatric therapeutic interventions. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 981. Seminar: General Medicine I. 3 Hours

This course addresses comprehensive issues related to the pathology and physical therapy management, of the general medicine patient. A variety of teaching methods are used including direct instruction, inquiry-based learning, cooperative learning and small group problem-based learning. Co-requisite(s): DPT 961, DPT 971.

DPT 982. Clinical Issues Seminar: General Medicine II. 3 Hours

This course addresses comprehensive issues related to the pathology and physical therapy management, of the advanced general medicine patient. A variety of teaching methods are used including direct instruction, inquiry-based learning, cooperative learning and small group problem-based learning. Prerequisite(s): DPT 962, DPT 972.

DPT 983. Clinical Issues Seminar: Neurology. 5 Hours

This course addresses comprehensive issues related to the pathology and physical therapy management, of the neurologic patient. A variety of teaching methods are used including direct instruction, inquiry-based learning, cooperative learning and small group problem-based learning. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 984. Clinical Issues Seminar: Neurology II. 3 Hours

This course addresses comprehensive issues related to the pathology and physical therapy management, of the Pediatric patient. A variety of teaching methods are used including direct instruction, inquiry-based learning, cooperative learning and small group problem-based learning.

DPT 985. Clinical Issues Seminar: Orthopedics I. 5 Hours

This seminar course focuses on comprehensive and complex issues related to physical therapy management of the orthopedic patient, including: application of biomechanical principles to movement and therapeutic exercise; principles of conditioning; training and therapeutic exercise prescription and rehabilitation; physical therapy management of the post-operative patient; medical diagnostics; documentation; and clinical administration. Students will study the history of manual therapies and current philosophies of patient care. The student will also be given an opportunity to develop interpersonal communication and work ethic skills associated with project development and production and role playing patient simulations. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum. Corequisite(s): DPT 975.

DPT 986. Clinical Issues Seminar: Orthopedics II. 3 Hours

Seminar presenting/discussing comprehensive issues related to physical therapy management of the complex orthopedic patient with select axial musculoskeletal pathologies. Includes chronic pain management, medical diagnostics, surgical intervention for the spine, differential diagnosis, and age-related pathologies. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 987. Clinical Issues Seminar: Advanced Therapy. 3 Hours

Seminar/discussion on issues related to physical therapy care and the profession. Includes preventive health care programs, physical therapy consultation, burn and wound care management, industrial rehabilitation, and sports medicine. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 988. Clinical Practice Electives. 4 Hours

Clinical Education Workshops: Concentrated lecture/lab instruction in selected advanced physical therapy patient-care topics including: advanced orthopedics, Back to Golf, MET, manual therapy for lymphedema, advanced NDT, rehabilitation technology, advanced prosthetics, advanced handling for pediatric patients, and orthotic fabrication. Clinical Enrichment Seminars: This seminar/discussion course will address select issues related to physical therapy care and the profession. Topic areas include: cardiopulmonary rehabilitation, women's health issues, medical management of the complex acute care patient, treatment of patients with terminal illness, and the rehabilitation of patients with burns. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 991. Research I. 2 Hours

An introductory course on research methods and design. Emphasis is placed on introducing statistical models, use of statistical software, experimental design, and the development of critical reasoning skills for reading and evaluating current research literature. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 992. Research II. 3 Hours

A continuation of DPT 991, the focus of this course is on student identification and selection of a research proposal topic. Advanced statistical analysis will be discussed, along with informed consent, writing techniques, funding acquisition, and presentation of findings. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 993. Research III. 1 Hour

Practical application of statistical methods using statistical software with an emphasis on basic statistics relevant in contemporary physical therapy research. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 999. Independent Study. 1-10 Hours

Independent study.