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
Comprehensive course including lab principles and practice of thermotherapy and cryotherapy procedures. Problem-solving approach to clinical decision making is integrated into the application of hydrotherapy, aquatic therapy, superficial and deep heat modalities, and cold modalities.

DPT 843. Clinical Science IV: Modalities II. 1 Hour
Comprehensive course including lab principles and practice of physical therapy modalities with focus on electrotherapy procedures. Problem-solving approach to clinical decision making is integrated into the application of modalities, including 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 912. Professional Seminar V: Professional Development. 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 940. Clinical Science V: Current Technology. 1 Hour
This course is designed to provide the principles and knowledge related to current medical technology and the advancements related to physical therapy. New technologies regarding therapeutic or diagnostic modalities and rehabilitation are studied with focus on the efficacy of these interventions. 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 prior course work as outlined in the University of Dayton DPT curriculum.

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 961. Clinical Pathology: General Medicine I. 1.5 Hour
This small group problem-based learning course utilizing patient case scenarios of various general medical, acute care, and postoperative patient case scenarios or pathologies to facilitate the integration of previous knowledge with new learning. Students review and apply basic and clinical science concepts to each case, formulating appropriate physical therapy assessment and treatment strategies. Prerequisite(s): DPT 971, DPT 981.

DPT 962. Clinical Pathology: General Medicine II. 1.5 Hour
This small group problem-based learning course utilizing patient case scenarios of various advanced general medical, acute care, and postoperative patient case scenarios or pathologies to facilitate the integration of previous knowledge with new learning. Students review and apply basic and clinical science concepts to each case, formulating appropriate physical therapy assessment and treatment strategies. Integration of medical diagnostics, pharmacology, imaging, and factors that lead to medical referral in relation to physical therapy intervention is emphasized. Prerequisite(s): DPT 972, DPT 982.

DPT 963. Clinical Pathology: Neurology. 3 Hours
This small group problem-based learning course utilizes patient case scenarios, describing various neurological pathologies, to facilitate the integration of previous knowledge with new learning. The student will use basic and clinical science principles to formulate appropriate assessment and treatment strategies for the patient with neurological deficits. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 964. Clinical Pathology: Neurology II. 1.5 Hour
This small group problem-based learning course utilizes patient case scenarios of various pediatric pathologies, to facilitate the integration of previous knowledge with new learning. The student will use basic and clinical science principles to formulate appropriate assessment and treatment strategies for pediatric patients. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 965. Clinical Pathology: Orthopedics I. 3 Hours
This course is taught using the small-group tutorial process. Case scenarios are used to create learning issues. Resolution of learning issues occurs through integration of present knowledge with new learning. New learning occurs through small-group interaction and the students’ independent utilization of resources. The emphasis in this course is on continued development of clinical reasoning and clinical decision making as it relates to orthopedic pathologies, with primary focus given to the extremities and secondary focus to the spine. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum. Corequisite(s): DPT 684; Clinical Skills Lab.
DPT 966. Clinical Pathology: Orthopedics II. 1.5 Hour
This small group problem-based learning course utilizing patient case scenarios dealing with differential diagnosis and management of complex orthopedic pathologies to facilitate the integration of previous knowledge with new learning. 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 967. Clinical Pathology: Advanced Therapy. 3 Hours
This small group problem-based learning course utilizing patient case scenarios of various advanced topics including cardiopulmonary, women's health issues, electrotherapeutics and 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 971L. Skills Laboratory: General Medicine I. 1 Hour
Designed to facilitate skill acquisition, along with clinical reasoning and decision making as it relates to the physical therapy care and management of the patient with acute medical and postoperative pathology. Students learn physical examination tests and measure, along with therapeutic interventions including electrotherapy modalities appropriate for this population. Prerequisite(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 972L. Skills Laboratory: General Medicine II. 1 Hour
Designed to facilitate skill acquisition, along with clinical reasoning and decision making as it relates to the physical therapy care and management of the patient with acute medical and postoperative pathology. Students expand skills related to physical examination tests and measure as related to medical diagnostics and medical or health care referral. Advanced therapeutic interventions including electrotherapy modalities appropriate for this population is addressed. Prerequisite(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 973L. Skills Laboratory: Neurology I. 2 Hours
This course is designed to assist the student with the development of clinical skills and reasoning essential for the assessment and treatment of patients with neurologic pathologies. Therapeutic procedures and protocols appropriate for this patient population will be taught with special considerations regarding patient safety. 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 974L. Skills Laboratory: Neurology II. 1 Hour
Designed to facilitate skill acquisition along with clinical reasoning and decision making as it relates to the physical therapy care and management of the pediatric patient. Students learn physical examination tests and measures along with therapeutic interventions appropriate for this population. Therapeutic procedures and protocols appropriate for these patients and taught with special consideration for patient/family needs and education. Prerequisite(s): DPT 964, DPT 984.

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 975L. Skills Laboratory: Orthopedics I. 1.5 Hour
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 965, 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 976L. Skills Laboratory: Orthopedics II. 1 Hour
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 977L. Skills Laboratory: Advanced Physical Therapy I. 2 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 994. Research IV. 1 Hour
Integrating research, scholarship, and evidence-based practice. Prerequisite(s): Successful completion of all prior course work as outlined in the University of Dayton DPT curriculum.

DPT 995. Research V. 1 Hour
Thesis presentation and board exam preparation (research only). Pass/Fail. Prerequisite(s): DPT 991, DPT 994. Corequisite(s): DPT Summation Module.

DPT 999. Independent Study. 1-10 Hours
Independent study.