PT - Physical Therapy

Courses numbered 500 to 799 = *undergraduate/graduate*. (Individual courses may be limited to undergraduate students only.) Courses numbered 800 to 999 = *graduate*.

PT 700. Pathophysiology for PT (3).
Focuses on the differentiation of major disease pathophysiology at the micro and macro levels. Content is specific to physical therapists and emphasizes causes and effects on the overall physical capacities of a patient/client as they relate to prevention and rehabilitation.

PT 708. Introduction to Professional Practice I (2).
Focuses on foundational concepts of the profession of physical therapy and doctoring professions. Knowledge in psychological development and dynamics is related to interactions with patients and clients. Students have the opportunity to evaluate individual values and personality preferences that influence their interactions with others, and to develop interpersonal skills for working effectively with patients, families and professional colleagues. Appreciation of psychological and social diversity is emphasized.

PT 709. Foundations of Therapeutic Exercise (3).
An introduction to the scientific principles of therapeutic exercise foundations and techniques for physical therapists. Designed to follow the Guide to Physical Therapist Practice. Laboratory sessions include skill development for safe, effective use of commonly used therapeutic exercise equipment.

PT 724. Navigating Social Determinants of Health and Principles of Education (2).
Applies teaching and learning theories to physical therapy education of patients, students, health professionals and the community. Methods of evaluating instruction, content, strategies and learners are included. Students learn and understand their own learning and teaching styles and how to adapt those when working with others. This course also examines culturally-informed care as a professional responsibility in clinical practice. Students critically examine their own cultural awareness and develop skills for providing person-centered care. Students develop an advanced understanding of the role of culture in health care, health care disparity, and understand how to apply cultural responsiveness within the clinical context. Format includes lecture, discussion, reflection, video and patient scenarios.

PT 725. Anatomy for Physical Therapists (6).
Presents a regional approach to the structure of the human body, using supervised dissection of human cadavers, observation of prosected materials, radiographic films and anatomical models. Emphasis is placed on surface anatomy and the neuromuscular, cardiovascular and skeletal systems.

PT 731. Clinical Kinesiology (3).
Details and analyzes kinesiological and biomechanical foundations that are required to differentiate causes of musculoskeletal dysfunction.

PT 736. Physical Agents (3).
Presents concepts and practical applications of a host of therapeutic modalities. Indications, contraindications and the appropriateness of these modalities are assessed.

PT 741. Clinical Practicum and Seminar I (2).
The first of a two-course series that builds on the integration of physical therapy knowledge, skills and professional values within a seminar setting and part-time clinical experience. A variety of professional and practice issues are examined, and the student gains observational experiences in a variety of acute, outpatient and rehabilitation settings.

PT 751. Foundations of Research (2).
Critical analysis of the scientific literature focusing on design and statistics for physical therapy and related disciplines. Successful completion of this course gives the student a foundation for designing and interpreting a research project or paper.

PT 755. Clinical Pharmacology for Physical Therapists (2).
Details major classes of pharmacological agents. Pharmacokinetics, mechanisms of action, side effects, drug interactions, contraindications, therapeutic use and appropriate drug monitoring are addressed. Clinical application of this knowledge emphasizes the physical therapist's role in assessment, management and proper referral of patients experiencing subtherapeutic benefits or drug-related problems.

PT 760. Principles of Motor Learning and Control (1).
Provides an introduction to basic principles of motor learning and control including practice, feedback, task analysis, performance, attention, interference and strategies for promoting motor performance and control across the lifespan. Practical use of theories to construct training plans, home programs is emphasized. Students learn to apply these principles to patients with a broad spectrum of diagnoses, conditions and personal factors.

PT 761. Clinical Practicum and Seminar II (2).
The second of a two-course series that culminates with the integration of physical therapy knowledge, skills and professional values within a seminar setting and part-time clinical experience. A variety of professional and practice issues are examined, and the student gains observational experiences in a variety of acute, outpatient and rehabilitation settings.

PT 762. Nutrition and Wellness for the Physical Therapist (1).
Provides the student with knowledge of nutrition, health and wellness as they relate to patient populations seen in physical therapy.

PT 763. Health Informatics (1).
Offers an in-depth exploration of health informatics, starting with foundational principles and progressing to practical applications in healthcare. Topics include electronic medical records, HIPAA compliance, telehealth and data analytics. The course also examines the impact of social determinants of health, strategies for clinical and ethical decision-making, and the role of emerging technologies in shaping the future of healthcare.

PT 764. Gait and Biomechanics (2).
Provides further study into gait kinetics, gait kinematics and power analysis. The course begins with the principles of normal gait, and then explores abnormal gait patterns, their cause, and how to best provide intervention to either remediate or provide compensation for these causes. Students spend time in the bioengineering lab, understanding capture of these principles in real lab-time experiences.

PT 770. Musculoskeletal Clinical Medicine (2).
Differentiates etiology, diagnosis, pathology, medical treatment and prognosis for orthopedic conditions that are managed by physical therapists.

PT 771. Critical Inquiry I (1-2).
The first course in a series of four consecutive research application courses. Students work with an assigned adviser to write an individual prospectus research project proposal that could be implemented and completed during enrollment in the DPT program. The student’s project is planned in conjunction with an assigned group of students. With the support of the advisor, the group selects one of the group’s proposals as the final prospectus plan to serve as the group’s research project to be implemented over the course of the Critical Inquiry course series.

PT 772. Foundations of Clinical Skills (2).
Provides specialized instruction for common patient care skills including bed positioning, transfers, gait training with assistive devices, vital signs, infection control and selected screening tests.

PT 773. Neuroscience I (1).
First of two courses describing the relationship of structure and function of the nervous system with selected neuromuscular conditions. Specifically covers the spinal cord, cerebral cortex, autonomic nervous system, and the effects of injury/disease to these structures. For students enrolled in physical therapy education program.

PT 774. Neuromuscular Interventions I (2).
First of three courses detailing examination, assessment and interventions for patients with neuromuscular conditions. Patients with spinal cord injuries and cerebral vascular accident are assessed and evaluated.

PT 782. Foundations of Musculoskeletal Examination and Intervention (3).
Emphasizes the scientific foundation and clinical rationale used during assessment, evaluation and intervention with musculoskeletal conditions. Provides specialized instruction in the art of palpating surface anatomy, performance of manual muscle testing, and goniometric measurements. An emphasis is placed on the clinical and scientific literature pertaining to evaluation and treatment of musculoskeletal conditions.

PT 785. Critical Inquiry II (1).
The second course in a series of four consecutive research application courses. Students work with an assigned adviser to select a group research project from the individual proposals developed in Critical Inquiry I. This group project is converted into the final prospectus paper, submitted to the IRB for approval, in conjunction with a research plan timeline that is approved by the advisor. The group's research project is implemented in subsequent Critical Inquiry courses.

PT 790. Selected Topics in Physical Therapy (1-4).
An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 790A, 790B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in this root course.

PT 790D. Self-Determination and Advocacy in Pediatrics (1).
Focuses on advanced skills in pediatric therapy and educational practice including assistive technology prescription, advocacy and professional development for pediatric physical therapists. This course incorporates first-person perspectives on developmental disability, experiential learning and project based learning to prepare students for work in a variety of pediatric physical therapy settings including homes, schools and communities.

PT 799. Experimental Course (1-4).
An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 799A, 799B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in this root course.

PT 799C. Owning a Private Practice (1).
This course is an introduction and an overview of owning a private practice in physical therapy. The student will be exposed to various aspects of practice ownership to include start-up, finances, marketing, insurance credentialing and reimbursement, and management. In addition, the student will develop an understanding of how the overall climate of the U.S. healthcare system affects physical therapy private practices.

PT 799D. Screening for Medical Referral (1).
Teaches the student to screen for conditions not amenable to treatment by a physical therapist or that require consultation/referral to other providers. It explores the physical therapist's role as an independent practitioner working within a collaborative medical model. This course also teaches the student to use clinical tools and decision-making processes necessary to efficiently and effectively collect and evaluate the history and physical examination data, and to communicate professionally with the patient and other health care professionals.

PT 799E. Advanced Acute Care (1).
Emphasizes a systems approach to evaluation, clinical decision making and discharge planning in the acute care setting. The student applies their knowledge of all body systems with particular focus on the movement system (musculoskeletal, integumentary, nervous, cardiovascular, pulmonary and endocrine), as described by the APTA practice guidelines, to common case scenarios. An evidence-based approach to patient cases is developed by the student. Resources for acute care physical therapist are explored, discussed and expanded upon as well as simulations for commonly seen diagnoses. An interprofessional approach to discharge planning is taught and students gain an in-depth understanding of referrals to home health, SNF, acute in-patient rehabilitation and out-patient.

PT 799F. LSVT / BIG Certification (1).
Designed to provide physical therapy students with the Lee Silverman Voice Treatment (LSVT) BIG therapy certification for individuals diagnosed with Parkinson's Disease. Students complete the LSVT BIG certification and participate in research related to the study of Parkinson's Disease.

PT 799G. Oncology (1).
Provides additional training and resources beyond the current entry level curriculum recommendations for cancer rehabilitation. Includes a system based approach to common impairments after a variety of treatments and a further analysis of potential limitations after specific cancer diagnoses. Students engage in case practice on modification of rehabilitation interventions secondary to clinical changes related to cancer treatments/progression, and develop understanding of strategies to advocate for improved access to cancer rehabilitation services.

PT 799K. Advanced Dry Needling (1).
A lab intensive course that uses an innovative approach of neuromodulation to treat clients with neuromusculoskeletal dysfunction. This course instructs participants in the application of dry needling to advanced neuroanatomical structures including the temporomandibular musculature, the cervicothoracic spine, thoracolumbar spine, trunk, abdomen, hip joint complex and extremities. This course also discusses and integrates the concept of, and techniques associated with neuromodulation. Additionally, there is a comprehensive review of anatomy, a strong emphasis on safety and precautions, ample lab time to optimize dry needling techniques, as well as dialogue surrounding clinical integration and relevant evidence.

PT 799M. Advanced Topics in Neurorehabilitation (1).
Provides advanced information on motor learning and control, techniques for movement facilitation in patients with chronic neurologic injury, and strategies for implementing pain neuroscience education with patients with a variety of diagnoses.

PT 799N. Chronic Pain (1).
An advanced course specializing in current concepts in the management of patients with chronic pain. This course is designed to follow the Guide to Physical Therapist Practice. This mainly didactic course includes education and skill development in the concepts of neuroplasticity, pain phenotypes and neuroscience education. These concepts are linked to the management of patients with chronic pain.

PT 821. Professional Practice I (2).
The first of two courses designed to provide students with an overview of health systems, health regulation, risk management, and administrative theory and principles as related to the practice of physical therapy. Primary focus is health policy and health systems.

PT 831. Musculoskeletal Management of the Upper Quarter (3).
Emphasizes the scientific foundation and clinical rationale used during assessment, evaluation and intervention with musculoskeletal conditions. Builds on the foundations from various courses during the first year of the DPT curriculum. It provides an in-depth study of different injuries and lesions, specific evaluation techniques, and treatments of those injuries and pathologies of the upper quarter. Emphasis is placed on organizing and synthesizing information from courses throughout the physical therapy curriculum to allow integration of problem-solving skills that enables students to better make the transition from students to competent practicing physical therapists.

PT 840. Directed Study (1-3).
Individual study with a focus developed in collaboration with a departmental faculty member. Allows students to pursue an area of special interest in physical therapy.

PT 848. Life Span of the Adult (2).
Focuses on the relationship of structure and function to the development of movement skills through older age. First of two courses.

PT 851. Critical Inquiry III (2).
The third course in a series of four consecutive research application courses. Students work with their advisor and research group to implement their group research project and analyze data.

PT 852. Clinical Education I (6-10).
Prepares the student to provide physical therapy care in varied settings requiring communication and interpersonal relations skills, professional socialization, application of physical therapy procedures, beginning development of a generalist in physical therapy.

PT 853. Neuroscience II (2).
Second of two courses describing the relationship of structure and function of the nervous system with selected neuromuscular conditions. Specifically covers the brainstem, cerebellum, basal ganglia and diencephalon, and the effects of injury/disease to these structures. For students enrolled in physical therapy education program.

PT 854. Neuromuscular Interventions II (2).
Second of three courses detailing examination, assessment and interventions for patients with neuromuscular conditions. Patients with problems of the visual system and the basal ganglia are assessed and evaluated.

PT 855. Interprofessional Education for Physical Therapists (1).
Consists of a series of seminars, lectures and lab/applied learning opportunities focused on learning about, from and with students from other disciplines of the health care team. Learning activities in this course center around the Interprofessional Education Collaborative's (IPEC) core competencies including: values and ethics, roles and responsibilities, communication, and teams/teamwork to prepare the student for interprofessional collaborative practice that is safe, high-quality, accessible, equitable, person/client-centered care and enhanced population health outcomes desired by all.

PT 858. Prosthetics and Orthotics (1).
Focuses on examination, clinical decision-making and treatment planning for patients/clients with conditions requiring prosthetics and/or orthotics. Interventions using prosthetics and orthotics are emphasized. Roles of other health care team members including prosthetists and orthotists and interactions with physical therapists are discussed relative to these conditions.

PT 859. Integumentary Conditions and Acute Care (2).
Addresses selected integumentary system conditions and the acute care practice setting. Focuses on examination, clinical decision making, and treatment planning for these conditions. Roles of other health care team members and interactions with physical therapists in the acute care settings are discussed relative to integumentary conditions. Prerequisite(s): departmental consent.

PT 861. Professional Practice II (2).
The second of two courses designed to provide students with an understanding of health systems, health regulation, risk management, and administrative theory and principles as related to the practice of physical therapy. The primary focus is understanding legal concerns, risk management, and planning, applying and interviewing for employment in the physical therapy profession.

PT 871. Critical Inquiry IV (2).
The fourth course in a series of four consecutive research application courses. Students work with their advisor and research group to finalize their research project, prepare presentations for WSU GRASP and the DPT Annual Research Symposium, as well as submitting their manuscript for publication if deemed appropriate by the advisor.

PT 874. Neuromuscular Interventions III (2).
Third of three courses detailing examination, assessment and interventions for patients with neuromuscular conditions. Patients with problems of sensory integration, motor control and the vestibular system are assessed and evaluated.

PT 877. Clinical Knowledge and Practice in Cardiovascular and Pulmonary Conditions (3).
Develops clinical skills in examining, assessing and managing patients/clients with cardiovascular and pulmonary impairments. Common pathophysiology of the cardiovascular and pulmonary system are covered.

PT 881. Musculoskeletal Management of the Lower Quarter (3).
Reviews the basic scientific foundation and clinical rationale used during evaluation, assessment and treatment of musculoskeletal conditions of the lower quarter. Elaborates on the foundations brought forth from various courses during the first year of the DPT curriculum. Evokes an in-depth study of different injuries and lesions, specific evaluation techniques, and treatments of those injuries and pathologies. Emphasis is placed on organizing and synthesizing information from courses throughout the physical therapy curriculum to allow integration and problem-solving skills that enables students to better make the transition from students to competent practicing physical therapists.

PT 891. Musculoskeletal Management of the Cervical/Thoracic Spine and TMJ (2).
Introduces the student to the basic scientific foundation and clinical rationale used during evaluation, assessment and treatment of musculoskeletal conditions of the cervical/thoracic spine and TMJ. Designed to build on the foundations brought forth from previous courses. Studies in depth different injuries and lesions, specific evaluation techniques, and treatment of those injuries and pathologies of the cervical spine, thoracic spine and TMJ. Emphasis is placed on organizing and synthesizing information from courses throughout the physical therapy curriculum to allow integration and problem solving skills that enable students to better make the transition from students to competent practicing physical therapists.

PT 892. Musculoskeletal Management of the Lumbar Spine and Pelvis (2).
Introduces the student to the basic scientific foundation and clinical rationale used during evaluation, assessment and treatment of musculoskeletal conditions of the lumbar spine and pelvis. Designed to build on the foundations brought forth from previous courses. Studies

in depth different injuries and lesions, specific evaluation techniques, and treatments of those injuries and pathologies of the lumbar spine and pelvis. Emphasis is placed on organizing and synthesizing information from courses throughout the physical therapy curriculum to allow integration and problem solving skills that enables students to better make the transition from students to competent practicing physical therapists.

PT 894. Differential Diagnosis: Screening for Medical Referral (2).
Provides the student with knowledge and skills to screen patients for non neuro-musculoskeletal conditions, interpret clinical findings, and make clinical decisions to include referring a patient to another health care provider when the patient's problems are suspected to be beyond the scope of physical therapy practice. Using diagnostic theory and processing skills, the student learns to perform a complete and thorough history and relevant regional physical examination of patients.

PT 898. Life Span of the Infant & Child (2).
Focuses on the relationship of structure and function to the development of movement skills from birth through adolescence. Second of two courses.

PT 899. Principles of Education for Physical Therapists (2).
Applies teaching and learning theories as they apply to physical therapy education of patients, students, health professionals and community. Methods of evaluating instruction, content, strategies and learners are included.

PT 905. Manual Physical Therapy (2).
Course specializes in teaching advanced orthopedic manual physical therapy techniques. Designed to follow the Guide to Physical Therapist Practice. Laboratory sessions include skill development for safe, effective use of manual therapy techniques, including mobilizations and manipulations. Prerequisite(s): departmental consent.

PT 943. Practice Management (2).
Designed for the student whose goals are to manage a therapy department and/or start a private practice. Familiarizes students with assessing the marketplace, developing policies and procedures for the department/practice, planning and designing a facility, hiring personnel and other staffing considerations, marketing the department/practice, budgeting, knowing requirements necessary to meet local, state and federal regulations, and developing a business plan. The student partners with an appropriate mentor.

PT 945. Specialty and Subspecialty Practice in PT (2).
Provides the student with the knowledge and skills related to treating specialty populations including pelvic floor dysfunction, women through various phases of life, including but not limited to, pregnancy, postpartum and menopause. Conditions related to hormonal changes, including osteoporosis, are also discussed. Attention is given to recognizing and understanding how and when to refer patients to a specialist for treatment of possible pelvic floor conditions. Such conditions include urinary and fecal incontinence, pelvic pain, pelvic organ prolapse, and sexual dysfunctions related to pain. This course also discusses oncology and lymphedema, its causes, and appropriate physical therapy interventions.

PT 951. Evidence-Based Practice (1).
Focuses on the use of current best evidence from clinical care research in the management of patients. Students gain knowledge of how to understand and appraise evidence from research.

PT 953. Clinical Education II (8-12).
First in a series of three 10-week courses offering continued development of clinical management of patients in varied clinical settings. Includes managerial aspects of care, teaching and some opportunities for clinical research.

PT 954. Clinical Education III (9-13).
Second in a series of three 10-14 week courses offering continued development of clinical management of patients in varied clinical settings. Includes managerial aspects of care, teaching and some opportunities for clinical research.

PT 955. Clinical Education IV (9-13).
Last in a series of three 10-14 week courses offering continued development of clinical management of patients in varied clinical settings. Includes managerial aspects of care, teaching and some opportunities for clinical research.

PT 961. Women's Health Physical Therapy (1).
Introductory course in the study of anatomy, diagnosis and treatment of topics in women's health physical therapy. Topics include evaluation and treatment techniques for obstetrical and postpartum clients, urinary and fecal incontinence, chronic pelvic pain, osteoporosis and female athlete considerations.

PT 975. Diagnostic Imaging for the Physical Therapist (1-2).
Normal and abnormal radiographic findings in the spine and extremity are covered. Conventional radiography, functional radiographs, ultrasound, MRI, CT-Scan and tomography are discussed. A variety of pathologies affecting the practice of physical therapy are identified. Radiographic and MSK US findings seen by physical therapists are correlated to common injuries seen by physical therapists. Radiographic findings as well as physical findings that require prompt referral to other disciplines within the health care team are also addressed.

PT 990. Clinical Conference I (1).
The first course in a series of two courses designed to support students in identifying and developing a clinical case report based on a patient they treated during one of their clinical education courses. The case report is submitted for review by faculty to possibly be selected for presentation at the Annual Clinical Conference the following spring semester. The Annual Clinical Conference is a forum for discussion of clinical case reports presented by students with guidance from their advisor and faculty content experts as needed. The focus of this course is to facilitate application and integration of didactic information from the classroom into clinical practice by expanding clinical problem solving through examination of clinical cases.

PT 991. Clinical Conference II (1).
The second course in a series of two courses designed to support students in preparing, evaluating and presenting a clinical case report based on a patient they treated during one of their clinical education courses. Based on the ranking of the student's case report in Clinical Conference I, selected students present at the Annual Clinical Conference. The Annual Clinical Conference is a forum for discussion of a clinical case report presented by students with guidance from their advisor and faculty content experts to facilitate application and integration of didactic information from the classroom into clinical practice by expanding clinical problem solving through examination of clinical cases. A formal presentation covering selected background information is followed by a presentation of the case including research supporting the reliability/validity of evaluation tools and efficacy of treatment.