

# PT - Physical Therapy

## **PT 621 Introduction to Physical Therapy (2 Credit Hours)**

An introductory course where students will develop physical therapy clinical skills. Content focuses on patient handling techniques including positioning and draping, bed mobility and transfer training, wheelchair management and gait training with the use of assistive devices. Basic medical terminology, communication, proper body mechanics and safety are also introduced.

## **PT 627 Theory and Practice I (4 Credit Hours)**

This is the first course in a series that covers physical therapy interventions. The focus is on therapeutic exercise to address an individual's impairments, functional deficits, and well-being. Students will learn where different types of exercises fit into the healing and recovery timeline.

## **PT 628 Theory and Practice II (4 Credit Hours)**

This course covers the theory, clinical techniques, and the evidence behind using common physical agents in physical therapy, including massage, electrotherapy, thermal and non-thermal modalities. The course also addresses theories of pain management and management of wounds and burns. The format of the class will combine lecture with an extensive laboratory component.

## **PT 630 Mechanical Properties of Human Tissues in Rehabilitation (1 Credit Hour)**

This one-credit course surrounds the basic structure and function of loose and dense connective tissues, bone, articular cartilage, muscle and nerve. It will address how these tissues function under normal and pathological conditions and the implications for physical therapy. The course will also prepare the student to read and interpret the medical and scientific literature relative to histology and clinical practice.

## **PT 634 Clinical Sciences I (3 Credit Hours)**

The first class in a series of lectures designed to acquaint the student with the clinical areas related to pathological conditions frequently encountered in physical therapy practice. The course develops an understanding of health models, disease processes and highlights common pathologies by body system central to the care of the patient.

## **PT 635 Clinical Sciences II (3 Credit Hours)**

This course is designed to acquaint the student with medical aspects and pathological conditions associated with musculoskeletal disorders and surgical procedures involving the musculoskeletal system with a subunit related to cancer.

## **PT 638 Exercise Physiology (2 Credit Hours)**

This course provides an overview of human physiology as it relates to exercise and the clinical practice of physical therapy. Energy systems and cardiopulmonary physiology will be covered, including electrocardiogram interpretation, as well as resistance training and weight loss.

## **PT 640 Patient Evaluation I (3 Credit Hours)**

A beginning course in patient examination skills which focuses on history/interviewing skills, vital signs, range of motion, surface anatomy palpation, reflex testing, sensation testing, edema testing, and manual muscle testing.

## **PT 641 Patient Evaluation II (3 Credit Hours)**

This course builds upon PT 640 with the focus on gait, posture, and musculoskeletal examination/evaluation. Emphasis will be on examination tests and measures, orthopedic special tests, beginning differential diagnosis, and linking evaluation to intervention choices.

## **PT 655 Clinical Problem Solving I (3 Credit Hours)**

This course integrates material from first-year courses using case scenario role playing, short case vignettes, and standardized patients to facilitate clinical skill competencies and clinical decision making. Also covered are professional topics such as interprofessional collaboration competencies (IPEC), direct access, the ICF model, documentation, and emergency procedures.

**Prerequisites:** PT 621; must be enrolled in the DPT Program

## **PT 656 Clinical Problem Solving II (3 Credit Hours)**

This course is one in the series of clinical problem-solving courses. It focuses on simulated patient experiences and discussion in orthopedic physical therapy. The course will emphasize critical thinking, problem solving and differential diagnosis as well as development and progression of plans of care for orthopedic patients.

## **PT 665 Biomechanics/Kinesiology I (3 Credit Hours)**

This course will review the musculoskeletal system with emphasis on normal movement of the spine and extremities and the coordinated muscle activity necessary to produce that movement. Students will learn manual muscle testing techniques. The course will also introduce basic concepts such as types of muscle contractions, torque production, and joint reaction forces.

## **PT 666 Biomechanics/Kinesiology II (2 Credit Hours)**

Students will learn to assess the measurement of motion and forces in normal human movement. Trigonometry will be employed in the problem-solving section of the course as the student assesses forces, vectors and loads.

## **PT 669 Clinical Experience I (4 Credit Hours)**

This first full-time clinical education experience begins at the end of the first academic year of the program and is designed to permit progressive responsibility in patient evaluation and treatment based upon material learned in classes during the first year. Each student is required to provide one in-service presentation during the clinical learning experience.

## **PT 695 Topics in Physical Therapy (1-3 Credit Hours)**

Advanced study of selected topics.

## **PT 792 Neuroscience I (3 Credit Hours)**

Neuroscience I is the first in a series of courses that provide the student with an understanding of integrated neuroanatomy and neurophysiology. Emphasis will be placed upon basic neurophysiologic principles at the cellular level.

**Prerequisites:** BIOL 889

## **PT 793 Neuroscience II (3 Credit Hours)**

Neuroscience II is the second course in the sequence. From the foundation of Neuroscience I, the course will build to the progressively higher order of structural functional relationships that control behavior.

**Prerequisites:** PT 792 and BIOL 889

## **PT 810 Scientific Inquiry I (3 Credit Hours)**

This is the first in a series of courses that prepare the graduate to critically analyze and use scientific literature to improve clinical decision-making and practice. This course introduces the terminology and strategies of evidence-based practice applied to physical therapy. It emphasizes the basic concepts such as research design, measurement principles and basic statistics.

## **PT 822 Scientific Inquiry II (2 Credit Hours)**

This course is a continuation of the graduate's preparation to practice critical analysis skills related to scientific literature. Its emphasis is placed on creating the components of research reports and concepts associated with judging the quality and value of research. Students will complete a systematic review of the literature.

## **PT 826 Theory and Practice III (4 Credit Hours)**

This is third in a series of four courses in which the student will develop entry-level professional analytical skills in the area of evaluation and treatment with emphasis in the area of orthopedics. This course will expand on the knowledge from spring semester and summer clinical experiences. Teaching methods will include lecture, lab experiences, patient case studies, and demonstrations.

## **PT 827 Theory and Practice IV (4 Credit Hours)**

This is the fourth in a series of Theory and Practice courses designed to prepare the student to achieve entry-level skills in analysis and management in acute care, the adult client with neurologic dysfunction, and rehabilitation following limb amputation. The course integrates the theoretical aspects of neurologic physical therapy with the development of cognitive and psychomotor clinical skills. Practice laboratories, demonstrations, use of audiovisual aids, lectures, laboratory assignments and projects are used to facilitate learning.

**PT 836 Clinical Sciences III (3 Credit Hours)**

This course is designed to emphasize modules in pharmacology, management of chronic pain, functional capacity evaluations, work conditioning, clinical electrophysiology and imaging.

**PT 837 Clinical Sciences IV (3 Credit Hours)**

The fourth clinical science course is designed to provide the learner with the foundation to apply clinical science knowledge about an underlying injury or disease to design and implement the appropriate physical therapy care plan for pathologies seen in physical therapy practice. This course focuses on pathologies seen in the acute care environment, pathologies of the nervous system and limb amputations.

**PT 842 Patient Evaluation III (3 Credit Hours)**

This course allows students to learn and develop the clinical tools and decision-making skills necessary in the evaluation of patients across the continuum of care with special attention paid to patients with various neurological dysfunctions, medically complex patients in the acute care setting and patients with amputations.

**PT 857 Clinical Problem Solving III (3 Credit Hours)**

The course uses simulated patient experiences, case studies and discussion around topics in orthopedic physical therapy. The course will emphasize critical thinking, problem solving and differential diagnosis, as well as the development and progression of plans of care for the orthopedic patient.

**PT 858 Clinical Problem Solving IV (3 Credit Hours)**

This is the fourth clinical problem-solving course. It focuses on simulated patient experiences, case studies and discussion of interventions for people with neurologic dysfunction (pediatric and adult), spinal cord injury, and care of patients with medically complex conditions in acute care and intensive care units (ICU).

**PT 870 Pediatric Rehabilitation (3 Credit Hours)**

This course is designed to prepare the student to achieve entry-level skills in pathology, analysis and management of the pediatric client with neurologic dysfunction. The course integrates the theoretical aspects of neurologic physical therapy with the development of cognitive and psychomotor clinical skills. Practice laboratories, demonstrations, use of audiovisual aids, lectures, laboratory assignments and projects are used to facilitate learning.

**PT 875 Clinical Experience II (6 Credit Hours)**

This second full-time clinical education experience occurs between the second and third academic years of the program and is designed to permit progressive responsibility in patient evaluation and treatment based upon material learned in classes during the first and second years.

**PT 876 Clinical Experience III (7 Credit Hours)**

This third full-time clinical education experience occurs following the final academic semester of the program and is designed to promote the development of an autonomous professional through the synthesis and application of clinical problem solving and clinical reasoning skills. Students will achieve entry-level clinical and administrative practice skills.

**PT 880 Psychosocial Aspects of Patient Care (2 Credit Hours)**

This course focuses upon the emotional and psychological elements associated with illness and disease. Students will learn the various societal and personal views of sickness and chronic illness as well as the coping mechanism employed by individuals and families when facing disease and terminal illness.

**PT 881 Inter-Professional Case Management for Special Populations (3 Credit Hours)**

This hybrid course facilitates interprofessional health promotion development between graduate-level health professions students in addition to PT management of special populations. Health promotion topics include abuse/mandated reporting, adolescent and LGBTQ health promotion, social and environmental issues, spirituality, death and dying, and supportive environments.

**PT 882 Practice Management (3 Credit Hours)**

This course is designed to provide the physical therapy student with a review of the principles and practices of managing and administering physical therapy in various clinical settings. The course stresses the principles of management administration in patient care in clinical environments.

**PT 883 Professional Issues in Physical Therapy (2 Credit Hours)**

This course is for the identification, analysis, and discussion of issues currently facing the physical therapy profession. The issues focus on the ethical questions as well as the role relationships of physical therapists in the greater health care delivery system of the United States.

**PT 884 Clinical Teaching and Professional Communication (3 Credit Hours)**

This course is designed to meet the needs for patient instruction, education within the classroom and clinic, and peer continuing education. The focus of the course is on clear communication in the teaching/learning process.

**PT 890 Differential Diagnosis Seminar (3 Credit Hours)**

The focus of this seminar will be on the integration of the foundational and clinical sciences to analyze and solve patient-based clinical problems to arrive at a diagnosis. Students will be expected to explain their reasoning and defend their decisions.

**PT 891 Seminar in Scientific Inquiry (3 Credit Hours)**

This course is designed to facilitate critical inquiry, clinical reasoning, cultural respect, and reflective thinking through formulation of a systematic review or case report on a patient from one of the student's full-time clinical experiences. Emphasis in this course is placed upon integrating the best research evidence with clinical experience and patient values to support decisions that affect patient outcomes and quality of life with application to management, education, and clinical practice.

**PT 892 Seminar in Inter-Professional Practice (1 Credit Hour)**

The purpose of this course is to challenge the student to interact with other health professionals in making patient care decisions.

**PT 893 Research Topics (2 Credit Hours)**

Research topics.

**PT 895 Topics in Physical Therapy I (1 Credit Hour)**

This course will expose interprofessional students to current trends in health promotion and illness prevention. Topics will include: Healthy People 2020 objectives, age specific clinical guidelines for health promotion and illness prevention, theories on behavior and motivation, sociocultural issues, and screening for a variety of health problems. Measures for promoting and maintaining health throughout the lifespan will be explored with attention to current research from the literature.

**PT 896 Topics in Physical Therapy II (1 Credit Hour)**

Students will pick from a variety of clinical specialty practice, service learning or research topics to explore in a small group setting.