PT - Physical Therapy

PHYSICAL THERAPY Courses

PT 621. Introduction to Physical Therapy. 2 Credits.
Students will be exposed to basic medical terminology, patient management skills involving draping, positioning, transfers, and gait training with assistive devices.

PT 627. Theory and Practice I. 4 Credits.
Several instructional units introduce the student to the basic areas of physical therapy. Units include orientation to the profession, basic safety procedures, physical modalities of heat and cold, electrotherapy, bandaging and sterile technique, and massage.

PT 628. Theory and Practice II. 4 Credits.
Instructional units in this course include introduction of therapeutic exercise approaches for patient types with differing diagnoses. Through critical thinking and problem solving, students learn how to design specific exercise approaches based upon the goals developed for various diagnostic groups. They also learn how to assess the effectiveness, success, and potential risks associated with exercise and develop strategies to modify the treatments based upon those factors.

PT 630. Concepts in Histology for Physical Therapy. 1 Credit.
The emphasis in this course in histology is on connective tissue, muscle tissue, tissues of the nervous system as well as the skeletal system. The course is intended to give the physical therapy student a basic understanding of cell structure and function in these major systems. The course integrates with human anatomy and neuroscience.

PT 634. Clinical Sciences I. 3 Credits.
A series of lectures designed to acquaint the student with the clinical areas related to pathological conditions frequently seen in physical therapy practice. The course develops an understanding of the disease processes and guides the student in the application and analysis of pathology in the care of the patient.

PT 635. Clinical Sciences II. 3 Credits.
This course is designed to acquaint the student with medical aspects and pathological conditions associated with musculoskeletal and cardiopulmonary disease and disorders. Subunits also include presentations on cancer, hospice care, and hematological disorders.

PT 638. Exercise Physiology. 2 Credits.
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 Credits.
A beginning course in patient examination skills which focuses on documentation, vital signs and history/interviewing skills, Respiratory and cardiac examination, range of motion, surface anatomy palpation, reflex testing, and vascular status assessment are introduced.

PT 641. Patient Evaluation II. 3 Credits.
A continuation of the study of patient evaluation. The focus of this course is on the musculoskeletal respiratory and cardiovascular systems, and includes examination of posture and gait.

PT 655. Clinical Problem Solving I. 2 Credits.
Use of case discussions, sample patients, and small group experiences to challenge student’s abilities to apply information from class to actual patient problems.

PT 656. Clinical Problem Solving II. 2 Credits.
Use of case discussions, sample patients and small group experience to challenge student's abilities to apply information from spring semester classes to actual patient problems. For this course, the emphasis is on therapeutic exercise, cardiopulmonary rehabilitation, and care of the acutely ill patient.

PT 665. Biomechanics/Kinesiology I. 3 Credits.
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 Credits.
Students will learn to assess the measurement of motion and forces in normal human movement. Trigonometry will be employed in the problemsolving section of the course as the student assesses forces, vectors and loads.

PT 669. Clinical Experience I. 4 Credits.
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 Credits.
Advanced study of selected topics.

PT 792. Neuroscience I. 3 Credits.
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 Credits.
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 Credits.
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 Credits.
This course is a continuation of the graduate's preparation to practice critical analysis skills related to scientific literature. Its emphasis is placed on knowing the components of research reports and concepts associated with judging the quality and value of research. Students will apply this knowledge to answer clinical questions of diagnosis, prognosis, and intervention.

PT 826. Theory and Practice III. 4 Credits.
A continuation of the important aspects of physical therapy practice. This semester is made up of the following units: spinal cord injury, pediatric neurologic dysfunction, and adult neurologic dysfunction. The course focuses on treatment procedures including proprioceptive neuromuscular facilitation, current motor control and motor learning concepts, and neurodevelopmental treatment.

PT 836. Clinical Sciences III. 3 Credits.
This course continues with the presentation of pathologies and clinical manifestations of selected patient populations. Units within this course include pediatric, adult neurology, and spinal cord injury.

PT 842. Patient Evaluation III. 3 Credits.
This course covers advanced and special interest areas of practice such as types of muscle contractions, torque production, and joint reaction forces.
**PT 857. Clinical Problem Solving III.** 2 Credits.
Student must be a second year PT student enrolled in PT curriculum. Use of case discussions, sample patients, and small group experiences to challenge student's abilities to apply information from class to actual patient problems. For this course, the emphasis is on Neurological and pediatric patients.

**PT 858. Clinical Problem Solving IV.** 2 Credits.
Use of case discussions, sample patients, and small group experiences to challenge student's abilities to apply information from class to actual patient problems. For this course, the emphasis is on orthopedic patients.

**PT 865. Prosthetics and Orthotics.** 3 Credits.
This course addresses the examination, assessment and fabrication issues associated with the development of prosthetics and orthotics for selected patient populations. Prerequisites: PT 665 and PT 666.

**PT 871. Clinical Experience II.** 4 Credits.
The student is provided an 8-week opportunity to apply academic philosophy, theory, and practices during a period of clinical education. This clinical experience or PT 872 will consist of a rehabilitation experience (pediatric or adult neurology). The student will be required to collect data for a research case study during this clinical experience or PT 872.

**PT 872. Clinical Experience III.** 4 Credits.
The student is provided an 8-week opportunity to apply academic philosophy, theory, and practices during a period of clinical education. This clinical experience or PT 871 will consist of a rehabilitation experience (pediatric or adult neurology). The student will be required to collect data for a research case study during this clinical experience or PT 871.

**PT 873. Clinical Experience IV.** 4 Credits.
Students spend eight weeks at different facilities in a full-time clinical experience. This course provides an opportunity to develop on-site innovative clinical investigations with program and clinical faculty coordination/supervision.

**PT 874. Clinical Experience V.** 4 Credits.
A final clinical experience for physical therapy students. Students spend eight weeks at different facilities in a full-time clinical experience. This course provides an opportunity to develop on-site innovative clinical investigations with program and clinical faculty coordination/supervision.

**PT 880. Psychosocial Aspects of Patient Care.** 2 Credits.
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 Credits.
This hybrid course combines in-class lectures with online discussion boards and collaborations with other health professions students. The student will learn to work with other health professionals to coordinate care in people dealing with the effects of aging and age-related movement problems, dementia, osteoporosis, breast and prostate cancer, sexuality, nutrition, and pelvic floor function.

**PT 882. Practice Management.** 3 Credits.
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 Credits.
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 Credits.
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 Credits.
The focus of this seminar is on the integration of the student’s knowledge in the areas of the foundation and clinical sciences through the application of problem solving in differential diagnosis.

**PT 891. Seminar in Integrative Case Reports.** 3 Credits.
This course provides the faculty and students the forum to present clinical case studies. The students will have collected the data for their individual case presentations during the previous summer internships.

**PT 892. Seminar in Inter-Professional Practice.** 1 Credit.
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 Credits.
Research topics.

**PT 895. Topics in Physical Therapy I.** 1 Credit.
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.
Students will pick from a variety of clinical specialty practice, service learning or research topics to explore in a small group setting.