

# PHYSICAL THERAPY (PT) (PT)

## PT 101 Orientation to PT 1 cr

An orientation to the physical therapy profession, college life and the physical therapy department.

## PT 490 Special Topics 1-3 cr

Directed study of topics of interest related to human movement and physical therapy.

## PT 499 Senior Honors Project-H-W 3-6 cr

Under the advice and guidance of a faculty mentor, honors students will identify and carry out a research project relevant to the field of Physical Therapy study that will lead to a formal presentation at the annual Honors Student Colloquium. The senior project will be judged and graded by three faculty members chaired by the honors mentor. This course is requires permission of the department chair and completion of an approved project prospectus.

## PT 520 Clinical Kinesiology 3 cr

A study of human movement as it relates to clinical physical therapy practice with a emphasis on biomechanical principles of movement and normal gait. Include laboratory study.

**Cross-Listed:** PT 620

## PT 521 Introductory PT Skills 4 cr

A introduction to the principles and techniques of patient care utilized in physical therapy practice. These basic therapeutic skills include, but are not limited to, positioning, draping, patient transfers, assistive gait devices, wheelchair use and basic examination. Techniques including assessment of joint range of motion, muscle strength and length testing, massage, and soft tissue mobilization are presented. Include laboratory study.

**Cross-Listed:** PT 621

## PT 525 Therapeutic Intervention 4 cr

A study of specific techniques of therapeutic intervention in physical therapy practice including electrophysical agents and manual therapy techniques. The electrophysical agents unit will include the physical principles, physiological effects, therapeutic uses and clinical applications of thermal, mechanical, electrical, and photic energy. The intervention unit will include therapy techniques including soft tissue massages, include laboratory study.

**Cross-Listed:** PT 625

## PT 527 Medical Screening 2 cr

A course focusing on the use of screening tests and clinical tools to enhance the therapist role as a independent practitioner with the ability to identify medical conditions of concerns that require referral to an appropriate health care provider.

**Cross-Listed:** PT 627

## PT 590 Sp Tp- 1-3 cr

Directed study of topics of interest to human movement and physical therapy.

## PT 600 Human Anatomy I 3 cr

A comprehensive study of human anatomy concentrating on the nervous, skeletal, arthroial, muscular and circulatory systems of the superficial back, upper extremities, head, neck, and face. Lab consists of prosected material and dissection of aforementioned body parts. Skeletal models and diagnostic imaging will be introduced of each area of dissection. Labs also include surface palpation on live human subjects. Special fee.

## PT 601 Human Anatomy II 3 cr

A comprehensive study of human anatomy concentrating on the nervous, skeletal, arthroial, muscular and circulatory systems of the deep back, trunk, pelvis, and lower extremity. Lab consists of prosected material and dissection of the aforementioned body parts. Skeletal models and diagnostic imaging will be introduced for each area of dissection. Labs also include surface palpation on live human subjects. Special fee.

**Prerequisite:** PT 600 (may be taken concurrently) Minimum Grade of C

## PT 602 Life Span Human Development 2 cr

A study of the process of typical human development and aging across the life span, including neuromotor development in childhood and changes associated with aging.

**Prerequisite:** PT 682 Minimum Grade of S

## PT 603 Neuroscience in Phys Therapy 3 cr

A survey of the structure and function of the nervous system, with emphasis on principles related to physical therapy practice. Includes laboratory study of anatomic specimens. Special fee.

**Prerequisite:** PT 601 Minimum Grade of C and PT 682 Minimum Grade of S

## PT 604 Pathophysiology I 2 cr

A physiological approach to the study of pathological changes in the human body brought about by trauma or disease, including cell injury, inflammation, immunopathology, neoplasia, infections, and the musculoskeletal and endocrine systems.

**Prerequisite:** PT 601 Minimum Grade of C

## PT 605 Human Learning 1 cr

This course incorporates application of the principles of human learning to patient/client management including patient, family/caregivers, and community education. Roles of the physical therapist as a clinical educator and academician are discussed as well as opportunities/responsibilities for lifelong learning and professional development.

**Prerequisite:** PT 673 Minimum Grade of C

## PT 606 Pharmacology in Rehabilitation 2 cr

A study of pharmacological principles in relation to rehabilitation, with emphasis on the possible benefits and side-effects of chemotherapeutic agents on patients receiving physical therapy treatment.

**Prerequisite:** PT 607 Minimum Grade of C and PT 682 Minimum Grade of S

## PT 607 Pathophysiology II 2 cr

A physiological approach to the study of pathological changes in the human body brought about by trauma or disease, including vascular, hematopoietic, nutritional, neurologic, urogenital, GI and hepatobiliary systems.

**Prerequisite:** PT 604 Minimum Grade of C

## PT 610 Principles of Research & EBP 2 cr

An introduction to evidence-based practice as it relates to physical therapy, including basic understanding of research designs and research statistics, formulating appropriate clinical questions based on patient/client, accessing current evidence using databases and other resources to answer clinical/practice issues, and summarizing evidence for clinical case application.

## PT 611 Research Proposal Development 2 cr

This course prepares students to achieve professional competence in critical appraisal of professional literature and in the design of a clinically relevant research proposal as an entry-level Doctor of Physical Therapy student. The course focuses on the foundational aspects of research methodology including research design, data analysis, and critical evaluation of research evidence.

**PT 612 Research Project 2 cr**

This course focuses on implementation of the research proposal developed in PT 611. In addition, this course is designed for the student to contribute to the evidence for practice through the dissemination of clinical research outcomes, including professional reporting of the results to peers in written and oral platform presentation formats.

**Prerequisite:** PT 611 Minimum Grade of C

**PT 613 Clinical Case Report 2 cr**

This course allows the student to develop a clinical case report based on a patient the student has treated during a full-time internship, an administrative/education process or a clinical risk management situation. An in-depth analysis of research from recent publications related to the case is required. The student will prepare a written case report and a presentation in seminar format.

**Prerequisite:** PT 612 Minimum Grade of C and PT 674 Minimum Grade of C

**PT 620 Clinical Kinesiology 3 cr**

A study of human movement as it relates to clinical physical therapy practice with an emphasis on biomechanical principles of movement and normal gait. Includes laboratory study.

**PT 621 Introductory PT Skills 4 cr**

An introduction to the principles and techniques of patient care utilized in physical therapy practice. These basic therapeutic skills include, but are not limited to, positioning, draping, patient transfers, assistive gait devices, wheelchair use, and basic examination. Techniques including assessment of joint range of motion, muscle strength and length testing, massage, and soft tissue mobilization are presented. Includes laboratory study.

**PT 622 Clinical Exercise Physiology 4 cr**

A study of the effect of physical activity on human physiology with an emphasis on the musculoskeletal, cardiovascular, and endocrine systems. Modes of exercise, environmental considerations, and selected clinical populations are also covered in this course. Includes laboratory study.

**PT 625 Therapeutic Intervention 4 cr**

A study of specific techniques of therapeutic intervention in physical therapy practice including electrophysical agents and manual therapy techniques. The electrophysical agents unit will include the physical principles, physiological effects, therapeutic uses and clinical application of thermal, mechanical, electrical and photic energy. The manual intervention unit will include manual therapy techniques including soft tissue massage. Includes laboratory study. Special fee.

**Prerequisite:** PT 621 Minimum Grade of C

**PT 626 Health Prom & Prev in PT 2 cr**

A course to identify disablement risk factors and provide educational intervention to prevent certain diseases and facilitate a positive change in the health behavior of patients.

**Prerequisite:** PT 622 Minimum Grade of C

**PT 627 Medical Screening 2 cr**

A course focusing on the use of screening tests and clinical tools to enhance the therapist's role as an independent practitioner with the ability to identify medical conditions of concern that require referral to an appropriate health care provider.

**Prerequisite:** PT 607 Minimum Grade of C

**PT 628 Mobility Ortho & Prosthetics 2 cr**

**Prerequisite:** PT 620 Minimum Grade of C

**PT 631 Musculoskeletal Disorders I 4 cr**

Etiology, diagnostic procedures and radiography, medical management, physical therapy examination, evaluation, and intervention of selected musculoskeletal disorders with an emphasis on the upper extremities. Additionally includes the fundamentals, principles, and practice of therapeutic exercise. Includes laboratory study.

**Prerequisite:** PT 601 Minimum Grade of C

**PT 632 Musculoskeletal Disorders II 3 cr**

Etiology, diagnostic procedures and radiography, medical management, physical therapy examination, evaluation, and intervention of selected musculoskeletal disorders with emphasis on the lower extremities. Includes laboratory study.

**Prerequisite:** PT 631 (may be taken concurrently) Minimum Grade of C

**PT 633 Musculoskeletal Disorders III 4 cr**

A continuation of PT 632 that includes etiology, diagnostic procedures and radiography, medical management, physical therapy examination, evaluation, and intervention of selected musculoskeletal disorders with an emphasis on the lumbar spine and pelvis. Includes laboratory study.

**Prerequisite:** PT 632 Minimum Grade of C

**PT 634 Musculoskeletal Disorders IV 3 cr**

A continuation of PT 633 that includes etiology, diagnostic procedures and radiography, medical management, physical therapy examination, evaluation, and intervention of selected musculoskeletal disorders with an emphasis on the cervical and thoracic spine. Includes laboratory study.

**Prerequisite:** PT 633 (may be taken concurrently) Minimum Grade of C

**PT 635 Musculoskeletal Disorders V 2 cr**

Special topics in the management of musculoskeletal conditions including, but not limited to, industrial medicine, sports physical therapy, and chronic musculoskeletal issues. Includes laboratory study.

**Prerequisite:** PT 634 Minimum Grade of C

**PT 640 Neuromusc PT Exam/Eval 4 cr**

This course includes study of the principles and concepts of normal human movement and PT examination/evaluation in patients with disorders of the neuromuscular systems across the lifespan. The course will focus on examination (patient/client history, systems review, tests and measurements), evaluation of examination data (clinical decision-making), with formulation of problem list, functional goals and PT plan of care. Includes laboratory study.

**Prerequisite:** PT 602 Minimum Grade of C and PT 603 Minimum Grade of C

**PT 641 Ped Neuromusc PT Exam/Eval 2 cr**

This course prepares the student to provide services to children with special health care needs/disabilities and their families in a manner consistent with family-centered care; includes patient/family history, systems review, and tests and measures and opportunities for clinical decision-making and establishing a plan of care based on examination data with emphasis on prognosis for a wide variety of pediatric diseases, conditions, and syndromes impacting typical development. Review of pediatric practice settings and legislation, medical management, pharmacologic treatment, radiographic imaging and other diagnostic testing related to neuromuscular disorders and developmental delay are included.

**PT 642 Neuromuscular PT Intervention 4 cr**

A course to follow PT 640 and 641 with added emphasis on principles and concepts of physical therapy intervention in patients with disorders of the neuromuscular systems. Includes laboratory study.

**Prerequisite:** PT 641 Minimum Grade of C

**PT 644 PT Pediatric Interventions 2 cr**

This course is the second in a sequence of two courses that provides an in-depth exploration of assessment and intervention procedures used with pediatric patient populations. The focus of this course will be on conditions present from birth or acquired in childhood. Clinical competence in the treatment of children with movement dysfunction is to be developed.

**Prerequisite:** (PT 641 Minimum Grade of C)

**PT 650 PT in Integumentary Disorders 4 cr**

A study of the practice of physical therapy in management of skin disorders and underlying disease with an emphasis on the patient with open wounds, including burns. Includes laboratory study.

**Prerequisite:** PT 604 Minimum Grade of C

**PT 660 PT Cardio/Pulmonary Disorders 4 cr**

A study of the principles and practice of physical therapy for patients with cardiovascular and pulmonary disease, including radiography, and medical and surgical management. Includes laboratory study.

**Prerequisite:** PT 607 Minimum Grade of C and PT 622 Minimum Grade of C and PT 682 Minimum Grade of S

**PT 671 Clinical Case Studies I 1 cr**

A case-based course providing opportunities to develop clinical judgment as part of patient management including establishment of differential diagnosis, patient prognosis, and development of a plan of care for patients with musculoskeletal disorders of peripheral joints. Students will also analyze cases involving ethical, legal and psychosocial concerns for which professional decisions and interprofessional practice or referrals are necessary.

**PT 672 Clinical Case Studies II 1 cr**

A case-based seminar designed to provide opportunities to develop clinical reasoning and communication skills as part of patient management. Students will develop skills in communicating with the healthcare team, recognizing and ameliorating barriers to patient outcomes, and developing plans of care for patients with complex health and psychosocial issues.

**Prerequisite:** PT 671 Minimum Grade of C and PT 682 Minimum Grade of S

**PT 673 Clinical Case Studies III 1 cr**

A case-based course to provide opportunities to apply clinical reasoning to promote evidence-based physical therapy practice by integrating best available evidence for patient management and to challenge the status quo of practice to raise it to the most effective level of care.

**Prerequisite:** PT 672 Minimum Grade of C

**PT 674 Clinical Synthesis & Pat Mgmt 1 cr**

A review and synthesis of physical therapy examination, evaluation, and development of a plan of care in patient management for specific clinical disorders, emphasizing clinical decision-making based on clinical experience and evidence.

**Prerequisite:** PT 627 Minimum Grade of C and PT 635 Minimum Grade of C and PT 642 Minimum Grade of C

**PT 675 Comprehensive Capstone 1 cr**

This course is a continuation of PT 674 that emphasizes comprehensive review and preparation for taking the National Physical Therapy Examination. All students must pass the final capstone exam to be awarded the DPT degree.

**Prerequisite:** PT 674 Minimum Grade of C and PT 683 Minimum Grade of C

**PT 676 Advanced Topics in PT 1 cr**

This elective course involves advanced study (beyond entry level) of selected topics within physical practice, research, education and leadership. Topics vary from year to year.

**Prerequisite:** PT 673 Minimum Grade of S and PT 635 Minimum Grade of C and PT 642 Minimum Grade of C and PT 650 Minimum Grade of C and PT 660 Minimum Grade of C

**PT 680 Professional PT Practice 2 cr**

A study of physical therapy as a profession with emphasis on the history of physical therapy; role and scope of practice; professional, ethical, and legal responsibilities; licensure; physical therapy education; contemporary practice issues; and professional communication.

**PT 681 Clinical Practice Issues - W 2 cr**

This course is designed to prepare the student for clinical practice by incorporating the patient management model, clinical decision-making models, health care systems, patient documentation including electronic health records, cultural competence, universal precautions, and risk management.

**Prerequisite:** PT 680 Minimum Grade of C

**PT 682 PT Internship I 6 cr**

A planned learning experience of clinical education designed to integrate previous didactic knowledge in a full time, supervised clinical internship in Physical Therapy practice settings.

**Prerequisite:** PT 620 Minimum Grade of C and PT 625 Minimum Grade of C and PT 632 Minimum Grade of C

**PT 683 PT Internship II 8 cr**

A continuation of PT 682, providing another planned learning experience, designed to integrate previous knowledge in a full time, supervised clinical internship in Physical Therapy practice settings. Good Academic Standing with no required course retakes pending.

**Prerequisite:** PT 635 Minimum Grade of C and PT 642 Minimum Grade of C and PT 650 Minimum Grade of C and PT 660 Minimum Grade of C and PT 682 Minimum Grade of S

**PT 684 PT Internship III 6 cr**

A continuation of PT 682 and 683, providing another planned learning experience, designed to integrate previous knowledge in a full time, supervised clinical internship in Physical Therapy practice settings. Good Academic Standing with no required course retakes pending.

**Prerequisite:** (PT 683 Minimum Grade of C)

**PT 685 Management of PT Practice 3 cr**

A study of current organizational and management principles and issues related to health care delivery systems with special emphasis on the current and future roles of Physical Therapy.

**Prerequisite:** PT 687 Minimum Grade of C

**PT 686 PT Internship IV 6 cr**

A continuation of PT 682, 683 and 684, providing another planned learning experience, designed to integrate previous knowledge in a full time, supervised clinical internship in physical therapy practice settings. Good academic standing with no required retakes pending.

**Prerequisite:** (PT 684 (may be taken concurrently) Minimum Grade of S

**PT 687 Profess Topics in PT Practice 1 cr**

This course entails a continuation of professional practice issues including interprofessional education and practice, communication between patient/client and healthcare provider, patient-centered care, and cultural aspects of patient care which all relate to professional development as a competent healthcare provider.

**Prerequisite:** PT 681 Minimum Grade of C

**PT 689 Evidence Library Skills 1 cr**

Discussion of evidence-based practice (EBP) and the importance of literature searching and information management skills.

**PT 690 Update in Exercise Physiology 1 cr**

This course reviews the effects of exercise intervention upon human physiology and the acute and chronic adaptations associated with physical activity.

**PT 691 Clinical Reasoning 2 cr**

This course should be one of the first courses taken and will include principles of evidence-based practice, access and evaluation of scientific literature, and application to clinical decision making in specific patient populations.

**PT 692 Applied Human Movement 2 cr**

This course will focus on recent advances in the understanding of human movement with particular emphasis on biomechanics, kinesiology and motor control.

**PT 693 Adv in Musculoskeletal PT 2 cr**

An interactive discussion and exploration of physical therapy practice for populations with orthopedic disorders, including examination, intervention and outcome. The focus will be on evidence-based clinical practice. Course topics will include updated research on operative and non-operative procedures for the peripheral joints and spine, spinal and peripheral joint diagnostic imaging (radiography), pharmacology, therapeutic exercise, clinical reasoning, and lifespan issues with a focus on geriatrics.

**PT 694 Adv in Neuromuscular PT 2 cr**

An interactive discussion and exploration of physical therapy practice for populations with neuromuscular disorders, including examination through intervention and outcomes. The focus will be on clinical practice in this population based on evidence. The course will include diagnostic imaging (radiography), pharmacology, therapeutic exercise, clinical reasoning, and lifespan issues with a focus on geriatrics.

**PT 695 Adv in Integumentary PT 2 cr**

An interactive discussion of new developments in skin and wound care with an emphasis on development of a plan of care that evolves over the episode of care, prevention of recurrence, and the interaction with the patient and other health care providers.

**PT 696 Adv in Cardiovasc/Pulmonary PT 2 cr**

An in-depth, interactive discussion of issues related to the examination, evaluation, and plan of care for patients/clients with primary and secondary cardiovascular and pulmonary disorders across the lifespan. Clinical reasoning, pharmacology and imaging techniques will be emphasized.

**PT 697 DPT Directed Study 1-3 cr**

Directed research or comprehensive review of evidence-based literature completed in a clinical area of interest under the supervision of a faculty mentor. The student will document incorporation of course content into their current clinical practice. This course may be repeated up to two times with a different focus-topic each time.

**PT 698 Professional Issues/Ethics 2 cr**

Discussion of current professional issues including clinical practice, management, legal, ethical/moral and psychosocial topics embedded within the current health care market faced by health care providers. This course will include interactive discussions among students and instructor and will include literature to support discussion topics.

**PT 699 DPT Seminar - 1-8 cr**

An elective seminar to update information in specific areas of study. Course number may be repeated three times.