PROGRAMS IN PHYSICAL THERAPY

There are two ways to enter into the Doctor of Physical Therapy program, a six-year freshman entry program or a three-year graduate program. Students who have earned a baccalaureate degree and who have satisfactorily completed all pre-requisite courses may apply to enter the professional phase (year 4) of the DPT Program as graduate students. Following successful completion of the 3-year professional phase these students will receive the Doctor of Physical Therapy degree. This entry-level clinical doctorate allows graduates to apply for physical therapy licensure; hence this program is not appropriate for individuals who have already earned a physical therapy degree either in the U.S. or in other countries.

Mission Statement

The mission of the Husson University Physical Therapy Program is to graduate generalist practitioners who are movement experts with advanced skills in selected practice environments. These skilled, knowledgeable and reflective practitioners are independent in their assessment of client needs but collaborative within the health care team in the ethical promotion of health and function. These graduates are responsible and self-directed learners, both adaptable and successful in addressing issues of diverse and complex health care systems, practice environments and client populations.

Philosophy of Physical Therapy Education

Husson is committed to providing individuals with a personalized, cost-effective educational experience leading to successful performance in productive and satisfying careers. In keeping with the Husson philosophy, the Physical Therapy faculty is dedicated to providing excellent student-centered learning in secure and open learning environments. The faculty incorporates active teaching and learning strategies that support the learner in assuming responsibility for his or her behavior, self-directed learning, evidence-based clinical knowledge and skills, critical and reflective thinking, and strong clinical experiences. The Physical Therapy program emphasizes the preparation of the generalist practitioner who provides a continuum of care responsive to the individualized needs and well-being of clients and patients from diverse backgrounds. Given the limited access to healthcare in the rural state of Maine, the PT program is committed to ensuring that its graduates are capable of working effectively in rural environments. In believing that each member of society has the right to receive quality health care, the Physical Therapy faculty emphasizes an educational preparation consistent with society’s expectations of a physical therapist as an autonomous practitioner, educator, evaluator, therapy provider, family and community consultant, health and wellness advocate, clinical researcher, and an effective member of the health care community.

Program Goals

Through its faculty and curriculum, the program will demonstrate a commitment to:

• Preparing graduates to competently practice physical therapy in a diversity of clinical settings.
• Enhancing the profession, the physical therapy community, and the health and wellness of the public.
• Promoting inquiry and scholarship within the Husson community and the physical therapy profession.

Faculty will demonstrate a commitment to:

• Serving as professional physical therapy role models.
• Engaging in and promoting inquiry and scholarship.
• Outstanding teaching practices that engage students in active learning.

Student and Graduate will:

• Demonstrate the knowledge and skills necessary to practice physical therapy as generalist practitioners with high ethical and legal standards.
• Demonstrate advanced skills in select practice areas.

Graduate Admissions Criteria for the Three-year DPT Program

Applicants who have earned a Baccalaureate degree may apply for entry to the fourth year of the six-year program, and will be considered in late spring after the number of third-year students progressing to the fourth year is known. The number of available positions is limited and varies from year-to-year. Graduate student applicants applying for fall entry into the three-year DPT program must apply online through PTCAS, the Central Application Service for Physical Therapy programs. PTCAS applications will be accepted at www.ptcas.org. Please apply early as it is time consuming to collect your supporting application materials.

Husson University has adopted a rolling admissions process. Completed PTCAS applications will be reviewed starting in December and will continue until the close of applications in May. Official transcripts showing evidence of completion of a Bachelor’s Degree must be sent to Husson’s Graduate Admissions Office by the program’s start date in August.

Applicants must meet the following criteria:

• have an undergraduate degree with a cumulative GPA of 3.0 or greater
• have successfully completed the following pre-requisite courses with a minimum grade of C:
  • Introductory Statistics (3 credits)
  • General Psychology (3 credits)
  • Anatomy with lab (4 credits)
  • Physiology with lab (4 credits)
  • May take Anatomy and Physiology I and II with labs to meet anatomy and physiology requirements (8 credits)
• Chemistry I and II with labs (8 credits)
• Physics I and II with labs (8 credits)
• Two Biology courses (6 credits)
• Upper level Psychology (3 credits), such as Abnormal, Developmental, or Child Psychology

Applicants must submit the following items to PTCAS:
Clinical Education

Students in the fourth, fifth, and sixth years of the Physical Therapy program are required to participate in unpaid full-time clinical experiences as part of their professional education. It is recommended that students budget an additional $2,000-$2,500 for travel, accommodations, etc. There are four clinical placement periods during the professional phase of the programs shown below:

Year 4—8-week placement generally mid-May to early July
Year 5—8-week placement from mid-May to early July
Year 6—8-week placement generally mid-October to mid-December
Year 6—8-week placement in January and February

Generally, the Physical Therapy program will attempt to place fourth-year students near their home for the first clinical placement (although this cannot be guaranteed). In the fifth and sixth years, students will be required to travel to other locations for their clinical placements. The program currently has contracts with approximately 200 clinical sites throughout the United States.

Technical Standards of Physical Education

Physical therapy education requires that the accumulation of scientific knowledge be accompanied by the simultaneous acquisition of technical skills, professional attitudes and professional behaviors. The Doctor of Physical Therapy degree awarded by Husson University, School of Physical Therapy certifies that the graduating individual has acquired a broad base of knowledge and skills requisite for the safe and competent practice of physical therapy. In order to acquire the foundation of knowledge, skills, attitudes, and behaviors needed throughout the physical therapist’s professional career, the student must demonstrate essential abilities in five areas: observation; communication; motor function; conceptual abilities and behavioral/social attributes. The following essential requirements have been adopted by the Husson University School of Physical Therapy as requirements for admission to, promotion within, and graduation from its entry-level professional program. A candidate must be able to perform these essential requirements in a reasonably independent manner. When requested, Husson University will provide reasonable accommodations to otherwise qualified students with disabilities.

Financial Aid

A freshman-entry Physical Therapist student is classified as an undergraduate student through the fourth year, and as a graduate student in the fifth and sixth year. The student who holds a Baccalaureate degree is classified as a graduate student for the three years of the professional phase.

Tuition

The tuition structure in the first, second, and third years is identical to the per-credit hour fee applied to other Husson students. Students enrolled in the fourth, fifth, and sixth years pay a higher per-credit hour fee that is specific to the physical therapy program.
Communication includes speech, reading, writing and computer literacy. The candidate must be able to communicate effectively and efficiently with all members of the health care team in both immediate and recorded modes.

Motor Function

Candidates must have sufficient motor function to elicit information from patients by palpation, auscultation, percussion, manual positioning of body segments and other evaluative procedures. A candidate must be able to physically perform basic screening and examination (physiologic measures such as a heart rate and respiration), diagnostic procedures (palpation, manual muscle testing, goniometry, sensory evaluation, gait analysis, balance assessment), and evaluation of EKGs and X-rays. A candidate must be able to execute movements required in the provision of general care, emergency treatment and therapeutic treatment, including cardiopulmonary resuscitation, wound care, positioning and transferring, gait training, and performing manual therapy techniques.

Each student must be willing to submit to screening, examination and therapeutic treatment, allowing student partners, of either gender, to practice therapeutic techniques.

Conceptual - Integrative and Quantitative Abilities

To effectively solve problems required of physical therapist practitioners, the candidate must be able to measure, calculate, reason, analyze, integrate, and synthesize information in a timely fashion. In addition, the candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures.

Behavioral/Social Attributes

A candidate must possess the psychological ability required for full use of their intellectual abilities, for the exercise of good judgment, for the prompt completion of all responsibilities inherent to diagnosis and care of patients, and for the development of mature, sensitive and effective relationships with patients. Candidates must be able to tolerate physical and mentally taxing workloads and to function effectively under stress. They must be able to adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in the clinical problems of many patients. In summary, a candidate must be able to collect information, analyze and synthesize it, and effectively perform clinical reasoning in the limited time demanded by a given clinical setting, while under stress, and in an environment in which other distractions may be present. Compassion, integrity, tolerance, concern for others, interpersonal skills, interest, motivation and ethical behavior are all personal qualities that are assessed during the admissions and education process.

Reasonable Accommodation

It is the policy of Husson University and the School of Physical Therapy to provide reasonable accommodation to qualified students with a disability so they can meet these essential requirements. In addition, students may request an accommodation based upon creed and religious restrictions. Whether or not a requested accommodation is reasonable will be determined on an individual basis. Determining what is a reasonable accommodation is an interactive process, which the candidate must initiate with the Director of Physical Therapy and with the Dean of Students located in the Center for Academic Services, (207) 992-1934.

Revised and adopted May 16, 2013
PT 412. Motor Control & Learning. 3 Hours.
This course is a capstone course for the BS in Kinesiology degree. It provides students with a holistic overview of current theoretical and applied perspectives in the field of motor control and learning and discusses their implications for kinesiology and for physical therapy. The course will primarily be focused at the behavioral level of analysis and thus will complement the neurophysiological approach taken in PT 450. A major emphasis in this course will be to compare and contrast the theoretical approaches of information processing and dynamic systems in the understanding of both normal and pathological human motor behavior. Implications for the analysis and treatment of movement disorders stemming from both approaches will be examined. This analysis will allow students to constructively criticize current assumptions underlying motor control for motor performance and neurological rehabilitation, and to understand how theoretical frameworks bias evaluation and treatment options. Given a theoretical understanding of past and current approaches to motor control and learning, students will be able to flexibly design their own exercise and treatment approaches. Students will be required to design and conduct an experiment using current computerized technology in an attempt to answer an applied or basic science motor control question. The data from the experiment will be analyzed and written up as if it were to be submitted for publication in a motor control/learning journal. Students will also present their research to the class on completion of the experiment. Prerequisite(s): PT 411.

PT 415. Therapeutic Skills I. 3 Hours.
This course is designed to introduce students to the assessment and treatment techniques integral to the practice of physical therapy. This course is the first of a three-part series designed to teach the appropriate selection and use of devices and techniques that all physical therapists should be capable of using. The aim of this course is for the student to safely apply the skills learned in this course to patients during the first clinical education placement at the end of year four. This course is divided into two parts. Part One is devoted to learning proper body mechanics, safety procedures, patient approach, and therapeutic massage techniques. Part Two is devoted to goniometry, manual muscle testing, quadrant scanning, and therapeutic exercise of the trunk and extremities.

PT 416. Therapeutic Skills II. 1 Hour.
Therapeutic Skills II is devoted to learning the proper and safe movement of patients between surfaces, including body mechanics, bed mobility, and transfer training. The students will also be introduced to vital signs assessment and the selection and use of devices and techniques related to gait training. Prerequisite(s): PT 415.

PT 417. Physical Agents I. 3 Hours.
This course is designed to introduce the students to the scientific and clinical principles involved in the use of physical agents (modalities) in patient assessment and treatment. The course focuses on thermal, light, sound, electrophysiological, and mechanical agents used by physical therapists to treat patients, and explores the physics, physiology, and clinical aspects of commonly used modalities. The lab part of the course is designed to introduce the students to the use of therapeutic modalities in patient treatment and to allow them to practice application of modalities introduced in lecture. The aim of this course is for the student to understand the indications and contraindications of thermal, sound, and mechanical modalities and to acquire the skills to be able to safely apply them to patients during the first clinical placement.

PT 418. Physical Agents II. 1 Hour.
This is the second part of a two part lab series that builds on content acquired in PT 417. This course focuses on the practice of electrical stimulation and biofeedback used by physical therapists in the treatment of patients. The aim of this course is for the student to understand the indications and contraindications of these modalities and to acquire the skills to be able to safely apply them to patients during the first clinical placement. Prerequisite(s): PT 417.

PT 420. Life Cycles I. 2 Hours.
This course, the first in a two-course sequence, presents the relationship of structure and function to the development of movement skills across the entire life span. Normal physical development and normal movement of an individual is described from the time of conception through old age with emphasis on children under five years and adults over sixty-five years. Students will be introduced to movement disorders that are characteristic of specific age stages. This course is taught from a life span perspective in which social, psychological, and physical factors all interact to influence function. Prerequisite(s): PT 410 and PT 411 and PT 415 and PT 417.

PT 425. Exercise Physiology. 3 Hours.
This course examines human physiologic responses to physical activity. The first three units of the course address acute responses to physical activity, with a focus on metabolic, muscular, cardiovascular, and neuroendocrine homeostatic control mechanisms, as well as the influence of environmental factors on acute responses. The final unit of the course involves a discussion of factors that contribute to fatigue, and examines the evidence regarding adaptations to chronic physical activity and exercise. Students will learn how the principles of frequency, intensity, duration, specificity, and reversibility affect the benefits of physical activity for health and human performance. In addition, performance benefits attributable to the use of ergogenic aids will be discussed. Prerequisite(s): SC 221 and SC 222 and SC 291.

PT 431. Psychosocial Aspects of Physical Therapy. 3 Hours.
The purpose of this three-credit experiential course is to guide the student in the attainment of attitudes, behaviors, and values appropriate to a healthcare practitioner. Through an examination of physical therapy as a profession, students will identify the changing and emerging roles of the physical therapist in the current healthcare environment. Students will be introduced to professional ethics, practice expectations, laws and regulations that define and limit the scope of physical therapy practice. Effective verbal and written communication skills will be emphasized, using issues relevant to physical therapy as vehicles for the practice of communication skills.

PT 435. Principles of Physiology. 3 Hours.
This course provides an overview of human physiology required for the understanding of clinical conditions in patients referred for physical therapy. Prerequisite(s): SC 221 and SC 222 and SC 291.
PT 450. Neurophysiology. 3 Hours.
This course will give students a basic understanding of the neuroanatomical and neurophysiological substrates underlying human perception, movement, cognition and language. The course will pay particular attention to the sensory and motor systems that contribute to the control of posture and movement. Both normal and pathological functioning of the nervous system will be discussed. Common dysfunctions of the neuromuscular system will be addressed through lectures, student literature reviews, and classroom discussion. Students will be required to review recent neuroscience research investigating commonly encountered neural pathologies. Clinical illustrations will be discussed throughout the course. This discussion will include etiology, pathology and therapeutic and pharmacological treatment options where applicable. The course will enable students to apply neuroanatomical knowledge in analyzing a collection of patient signs and symptoms to determine the location and type of CNS lesion. Prerequisite(s): PT 410 and PT 411 and PT 415 and PT 417.

PT 500. Clinical Edu II. 4 Hours.
An eight-week full-time clinical experience during the fall semester of the second professional year. This course is designed to provide the student with competency in the intermediate to entry level skills of managing musculoskeletal dysfunction, basic to intermediate skills of managing patients with neurological dysfunction, and exposure to administrative functions of the physical therapist. Prerequisite(s): PT 400.

PT 510. Neuromuscular I. 3 Hours.
This course provides students with an overview of the examination and treatment of the adult client with a neurological lesion. It presents the philosophies underlying the major treatment approaches, and discusses strengths as well as limitations of these philosophies. The course focuses on the patient who has had a cerebrovascular accident, however the principles presented in this course can be applied to patients with a variety of neurological lesions. A hypothesis-based approach to development of an intervention strategy will be presented and emphasized. Laboratory sessions focus on hands-on management techniques for the patients with neurological deficits. Students will be required to read and critically analyze primary literature related to neurological rehabilitation. Prerequisite(s): PT 420 and PT 412 and PT 416 and PT 418 and PT 450.

PT 515. Therapeutic Skills III. 3 Hours.
This is the third of four courses designed to introduce students to the scientific and clinical principles involved in the use of various therapeutic skills in patient care. This course emphasizes orthopedic evaluation and treatment skills of the upper and lower extremities and some neurological treatment skills related to proprioceptive neuromuscular facilitation (PNF). The emphasis of the class is on development of manual therapy skills and the application of therapeutic exercise prescription. Part of the material pertaining to performing a musculoskeletal screening is taught in the week prior to the start of Fall semester in combination with PT 550 Musculoskeletal I on a different schedule. Prerequisite(s): PT 411 and PT 415.

PT 520. Life Cycles II. 3 Hours.
This course, the second in a two-course sequence, explores the impact of chronic disorders on growth, development, movement and aging. Students will use information describing the typically-development and typically aging individual to determine the changes in structure, function and movement expected from a specific pathology. This course is taught from a life span perspective in which social, psychological, and physical factors all interact to impact function. Prerequisite(s): PT 550 and PT 515 and PT 528.
PT 554. Musculoskeletal III. 3 Hours.
This is the third of three courses designed to introduce students to the scientific and clinical principles involved in the evaluation and treatment of orthopedic conditions treated by physical therapists. This course will allow students to acquire more advanced skills in the evaluation and treatment of pelvic girdle, spinal, rib cage and temperomandibular joint related orthopedic pathologies and disorders. Manual therapy techniques will be discussed based on the biomechanics of the skeletal joints. Adjunctive treatment procedures used in orthopedics will be discussed. The goal of this course is to prepare the student to evaluate and treat common disorders of the spine, pelvic girdle, and rib cage and to be able to differentiate between distal and proximal nerve pathologies. Intervention approaches will emphasize the concept of identifying the tissue or tissues in lesion when possible and applying the Optimum Stimulation for Regeneration via manual therapy techniques and exercise. Major emphasis will be placed on Nordic manual techniques with frequent reference to Australian manual therapy concepts and Medical Exercise Training concepts. Case studies will be used to help students apply the concepts. Prerequisite(s): PT 552 and PT 550 and PT 515.

PT 560. Cardiorespiratory. 3 Hours.
This course uses a mix of lectures, labs and small group sessions as well as independent study to help the student develop competencies in assessment and treatment of cardiopulmonary impairments and associated disabilities so that they can provide safe and effective patient interventions. Students will develop assessment skills that will enable them to identify acute and chronic cardiopulmonary/cardiovascular impairments across the lifespan and to choose and apply treatment strategies appropriate to the problems identified during their assessment. Prerequisite(s): PT 528 and PT 552 and PT 601.

PT 561. Pathophysiology. 3 Hours.
This course adds to the knowledge base of the student by providing instruction regarding the pathology of disease states, the implications of the disease as regards system impairments, functional limitations, and disablement. Further, the content will include discussions of the evidence in support of the available treatment of each disease discussed, and how the particular pathology influences the therapeutic regime. Students will participate in lectures and will use several vehicles to disseminate information about a chosen pathology. Prerequisite(s): PT 410.

PT 599. Advanced Physical Therapy Elective. 3 Hours.
This course provides advanced study in small groups of varying areas related to physical therapy practice. Prerequisite(s): PT 603 and PT 610 and PT 650 and PT 608.

PT 600. Clinical Edu III. 4 Hours.
This eight-week full-time clinical experience is designed to provide the student with competency in the intermediate to entry level skills of managing musculoskeletal dysfunction; basic to intermediate skills of managing patients with neurological, cardiopulmonary, and integumentary dysfunctions; and basic to intermediate administrative functions. The learner is expected to actively participate, with supervision, in the entire patient management process, demonstrating critical-thinking skills and effective communication skills. Prerequisite(s): PT 500.

PT 601. Research Methods I. 1 Hour.
This course is the first in a four-semester Research Methods series. Students will work in groups to initiate a research project under the guidance of a faculty researcher. Students will conduct a literature review, formulate research questions, design a research methodology to answer those questions, and develop a research proposal. If appropriate, students will submit the proposal to an Institutional Review Board. Prerequisite(s): PT 420 and PT 412 and PT 450 and PT 515 and PT 550 and MS 345.

PT 602. Research Methods II. 1 Hour.
This course is the second course in a four-semester Research Methods series. It is intended to follow the IRB approval of a research proposal. During this semester students will work in groups with their research advisor to finalize their data collection protocol, establish a data collection management system, seek participants following the guidelines established by the IRB proposal and informed consent process, initiate data collection for their research project, and document collected data following the established management guidelines. Prerequisite(s): PT 601 and PT 552 and PT 528.

PT 603. Research Methods III. 2 Hours.
This course is the third course in the four-semester Research Methods series. It intends to prepare students for writing a journal quality manuscript, with appropriate use of statistical analysis. During this semester, students will work in groups to complete the data collection and analysis for their research projects. Prerequisite(s): PT 602 and PT 554 and PT 560 and PT 520 and PT 561.

PT 604. Research Methods IV. 3 Hours.
This course is the final course in the four-semester Research Methods series. It prepares students for presentation of a completed research study using three different formats, including an oral presentation, a scientific paper, and a poster. The course discusses differences among these three formats, as well as the qualities that contribute to excellence and the pitfalls to avoid in each type of presentation. Students will also gain experience in writing a formal critique of a manuscript. Students are expected to apply the knowledge they have gained from other classes regarding presentations, communication, and education. Prerequisite(s): PT 603 and PT 610 and PT 650 and PT 661 and PT 608.

PT 605. Advanced Anatomy. 1 Hour.
This course provides a review of neural, vascular, and musculoskeletal anatomy initially covered in the first gross anatomy course. This review will make use of previously prospected cadaveric specimens as it integrates knowledge of anatomical pathology learned in previous clinical physical therapy courses. This course serves as a review for the physical therapist licensing exam. Prerequisite(s): PT 603 and PT 610 and PT 650 and PT 608 and PT 606 and PT 650 and PT 661.

PT 608. PT Management of Children with Neurologic Dysfunction. 3 Hours.
This course is designed to provide the PT student with clinical specialty skills in pediatric neuro-rehabilitation. Students will develop competencies in the assessment and management of the child diagnosed with any of the primary neurological conditions found in pediatrics. A holistic view of the child is stressed, especially the interrelationships among the child, the family, and the community. Prerequisite(s): PT 552 and PT 560 and PT 520.
PT 610. Neuromuscular II. 3 Hours.
This course is the second part of the series in neurological rehabilitation in the Physical Therapy program. It builds on the foundational courses of Neuropathology and Neuromuscular I, covering the pathology, medical management, and physical therapy intervention for a number of neurological conditions that are representative of the most common neurological diagnoses seen in clinical practice. In addition to mastering new treatment techniques and interventions, students will learn to apply the principles and skills learned in previous courses to diverse neurologically-impaired populations. This course also exposes students to current benchwork scientific research related to the conditions studied, emphasizes critical analysis of primary scientific literature. Prerequisite(s): PT 450 and PT 510.

PT 615. Advanced Spinal Manual Therapy. 3 Hours.
This elective course is designed to provide the student with a more in-depth approach to evaluation and treatment techniques for the spine, pelvic girdle and ribs from a manual therapy perspective. The main emphasis of the course will be on improving clinical reasoning skills in identifying the specific lesion(s) and the treatment approach. The second goal is to improve manual skills that emphasize the Nordic approach, the Australian lumbar and pelvic stabilization concepts and the use of exercise in rehab. The treatment concepts are based on current scientific research principles. The lab sessions emphasize the development of palpation and technique application skills. The integration of manual therapy skills with exercise programs and patient education is an important component of this course.

PT 616. Sports Medicine. 3 Hours.
This elective course is designed as an overview of sports medicine from a physician-based model and a sports therapist perspective. This course includes a review of musculoskeletal therapies with an emphasis on manual skills for prevention, evaluation, and treatment of athletic injuries. The physician-based model provides an overview of all body systems as they pertain to athletics. Topics will emphasize variations from young to old and male to female athletes.

PT 617. Orthotics & Prosthetics. 3 Hours.
This course provides an analysis of contemporary upper and lower-limb orthotic and prosthetic components and trunk orthoses, including the biomechanical principles upon which the designs are based. Topics include the static and dynamic evaluation of patients fitted with orthoses and prostheses. Discussion will also include recent trends in early and prosthetic management for adults and children with amputation. The role of physical therapist as part of the rehabilitation team in selecting orthotic and prosthetic devices will be examined. Prerequisite(s): PT 554.

PT 618. Health and Wellness. 3 Hours.
This course is designed as an overview of health and wellness as it can be incorporated into a physical therapy practice. This course will review statistics, risks, treatment options, and prevention strategies for many chronic health problems. Age and gender differences will be reviewed in the discussion of treatment and prevention strategies. Students will work in groups to develop and present a health and wellness business proposal. The final copy of this proposal will be in format suitable to deliver to the student's next employer. Prerequisite(s): PT 661 and PT 664.

PT 620. Primary Health Care. 2 Hours.
This course provides students with an overview of patient interview and evaluation techniques for the primary health care provider. As autonomous practitioners, physical therapists are responsible for identifying factors that affect a patient's response to treatment and may necessitate referral to a physician for follow-up and treatment. This course uses a case-based approach to the medical screening process to help students develop interview and evaluation skills that facilitate this process. In addition students will learn to use pharmacological and basic laboratory data essential to the screening process. Prerequisite(s): PT 610 and PT 650 and PT 608.

PT 625. Prosthetics in Rehabilitation. 2 Hours.
This course is designed to present entry level information regarding management of the patient with an upper or lower extremity amputation. The course will be co-taught by the primary instructor and a local prosthetist, each bringing a different perspective and area of expertise to the class. Students will learn about pre-prosthetic management, prosthetic prescription, various prosthetic components, and about therapeutic skills to use when working with a patient who has had an amputation. A multi-disciplinary approach will be emphasized throughout the course. Prerequisite(s): PT 411.

PT 630. The Physical Therapist as Educator, Consultant and Advocate. 2 Hours.
This seminar course is designed to provide an examination of the educational factors supporting successful adult learning within healthcare settings. Students will examine the impact of identity differences (race, ethnicity, class, gender, disability and other identity differences), adult development theories and learning theories in the education of adults. Students will explore the educational principles and methodologies needed to educate various constituencies within healthcare. Through the application of theories, principles, and methodologies in a community health project, students will acquire the pedagogical foundations to develop, deliver, and evaluate educational products for their clients, professional peers and physical therapy students. Prerequisite(s): PT 552 and PT 560 and PT 520.

PT 640. Medical Imaging and Rehabilitation. 1 Hour.
This course will provide the PT clinical doctoral learner with the tools needed to interpret and apply specialized medical imaging information to the rehabilitation patient. Musculoskeletal imaging is emphasized. A basic introduction of imaging techniques for other physiological systems (CNS, Heart, lung, vascular tree) will also be incorporated (Doppler ultrasound, V/Q scan, echocardiography, radioisotope testing, etc.). This course strengthens physical therapist clinical expertise in comprehensive patient evaluation, diagnosis, treatment planning, and physician interaction. Prerequisite(s): PT 560 and PT 510 and PT 552.

PT 642. Pharmacology and Rehabilitation. 1 Hour.
This course will provide the PT clinical doctoral learner with the primary drug classes and the physiologic basis of their action. Drugs will be grouped according to their general effects and the type of disorders they are routinely used to treat. Special emphasis will be placed on drugs that are commonly used to treat people receiving physical therapy. This course will likewise address how drug therapy interacts with physical therapy, and how drugs can exert beneficial effects as well as adverse side effects that impact on rehabilitation. A specific area of focus will include geriatric pharmacology. Prerequisite(s): PT 561.
PT 650. Patient Care Seminar I. 2 Hours.
This is a seminar course in which the management of variety of actual cases is discussed in small groups. Students will each present both a written and an oral case study, based on a real patient they treated during Clin Ed II. The overall management of the patient, from initial examination to discharge from PT services, as well as follow-up care will be discussed. Discussion will focus on the strengths of the patient management provided, as well as areas that could have been improved. Evidence-based practice, and reflective practice are emphasized. Prerequisite(s): PT 552 and PT 560 and PT 520.

PT 652. Patient Care Seminar II. 1 Hour.
This capstone seminar course builds on the themes of reflective and evidence-based practice that were stressed in PT650. Management of patient cases is discussed in small groups, with additional emphasis placed on independent library research on the seminar topics. Prerequisite(s): PT 650 and PT 700.

PT 661. Exercise for Special Populations. 3 Hours.
This course builds on the knowledge base and the assessment and treatment skills that students developed during their first two years in the professional phase of the DPT. The course will allow students to investigate the role of exercise as a treatment strategy across various conditions and disease states, and across the lifespan. The focus of the course will be mastery of the Knowledge, Skills, and Abilities as set forth by the American College of Sports Medicine in their guidelines and position stands for exercise in various populations. These include, but are not limited to, Heart Disease, Hypertension, Children, Older Adults, Pregnancy, Obesity, and Diabetes. Students will participate in lectures as well as observational experiences in wellness and/or medical settings to further enhance the skills needed to assess and treat complex patients with multi-system involvement. Students will also be responsible for a semester project in which they will be challenged to defend patient interventions using evidence from current literature. Prerequisite(s): PT 560 and PT 561.

PT 664. Geriatrics. 3 Hours.
This course will provide students with the knowledge base for understanding the demographics of aging in industrialized societies, as well as the physical, psychological and emotional aspects of healthy human aging including the affects of age-related diseases and conditions. The students will be required to formulate plans for treatment of the geriatric physical therapy patient including assessment, education, and application of therapeutic interventions. Prerequisite(s): PT 510.

PT 698. Individualized Physical Therapy Remediation. 1-7 Hour.
The Individualized Physical Therapy Remediation is a variably-credit course. In this course, an individual student and a designated faculty member, or members, study subject matter as part of an individualized remediation plan for learning content that was incompletely learned in prior PT courses. The Individualized Physical Therapy Remediation course is available to DPT professional-phase students only with the written recommendation of the Physical Therapy Academic Review Committee.

PT 699. Special Topics in Health Care. 2 Hours.
Variable Topic Course in Physical Therapy.