PROFESSIONAL CURRICULUM

Professional Outcomes
Professional Core Abilities

1. Professional Formation and Critical Self-Reflection – The student shall utilize a process of deliberative self-reflection to enhance understanding of self and engage in continued professional formation. Formation of professional identity is based on the following core values: accountability, altruism, compassion, excellence, integrity, professional duty and social responsibility.
2. Communication Skills – The student shall read, write, speak, listen and use media and technology to communicate effectively. The student shall demonstrate respectful, positive and culturally appropriate interpersonal behaviors in the counsel and education of patients, families, and in communication with other health care professionals.
3. Critical Thinking and Clinical Judgment – The student shall acquire, comprehend, apply, synthesize and evaluate information. The student shall integrate these abilities to identify, resolve and prevent problems and make appropriate decisions. The student shall demonstrate the behaviors of the scholarly clinician by developing and utilizing the process of critical thinking and systematic inquiry for the purpose of clinical reasoning, decision-making and exercising sound clinical judgment.
4. Learning and Professional Development – The student shall consistently strive to expand his or her knowledge and skills to maintain professional competence and contribute to the body of professional knowledge. The student shall demonstrate the ability to gather, interpret and evaluate data for the purpose of assessing the suitability, accuracy and reliability of information from reference sources.
5. Ethical Foundation and Moral Agency – The student shall practice in an ethical manner, fulfilling an obligation for moral responsibility and social justice. The student shall identify, analyze and resolve ethical problems.
6. Social Awareness, Leadership and Advocacy – The student shall provide service to the community and to the profession. The student will assume responsibility for proactive collaboration with other health care professionals in addressing patient needs. The student will be prepared to influence the development of ethical and humane health care regulations and policies that are consistent with the needs of the patient and society.

Physical Therapy Care Abilities

1. Patient Examination – The student shall perform: a) Thorough patient interview with appropriate medical history and review of systems; b) Physical examination utilizing appropriate tests and measures.
2. Patient Evaluation and Physical Therapy Diagnosis – The student shall: a) Interpret results of the physical therapy examination and other diagnostic procedures; b) Synthesize pertinent data; c) Formulate an accurate physical therapy diagnosis. The process of evaluation also may identify the need for consultation with or referral to other health care providers.
3. Patient Prognosis – The student shall predict the patient's level of optimal improvement that may be attained through intervention within a given period of time.
4. Patient Intervention – The student shall design an appropriate plan of care to produce changes consistent with the physical therapy diagnosis and prognosis. The student shall develop a customized plan of care in collaboration with the patient's/family's expectations and goals. The student shall also assume responsibility for delegation and supervision of appropriate human resources engaged in patient care activities.
5. Patient Re-examination/ Re-evaluation – The student shall perform an accurate re-examination and re-evaluation to determine changes in patient status and to modify or redirect physical therapy intervention. The process of re-examination and re-evaluation also may identify the need for consultation with or referral to other health care providers. Patient re-examination and re-evaluation may also necessitate modification of delegation and supervision of appropriate human resources engaged in patient care activities.
6. Patient Outcomes – The student shall track the results of physical therapy management, which may include the following domains: Pathology; Impairments; Functional limitations; Participation; Risk reduction/Prevention; Wellness; Community and Societal resources; and Patient satisfaction.
7. Systems Management – The student shall identify the specific contribution of physical therapy management within the health care system and the influence of health care policy on that system. In addition, the student shall demonstrate knowledge and be able to effectively interact within the interdependent framework of the health care team in a complex society. The student shall extend his/her responsibility for physical therapy care beyond individual patients to include care of communities and populations.

Membership in the American Physical Therapy Association (APTA) is strongly recommended.

Entry-level Doctor of Physical Therapy

First Professional Year

First Semester (Fall)		**Credits**
IPE 500	Introduction to Collaborative Care	0-0.5
PTD 500	Human Anatomy	7
PTD 501	Exercise Physiology and Wellness	2
PTD 502	Patient Management I	1
PTD 503	Behavioral and Social Science	2
PTD 504	Evidence Based Practice I	2
PTD 505	Introduction to Imaging for Physical Therapists	1
PTD 506	Integrated Laboratory I	1
PTD 507	Emergency Medical Responder	2
	Term Credits	18-18.5
Second Semester (Spring)		
PTD 510	Movement Science	4
PTD 511	Health Conditions for the Physical Therapist	3
PTD 512	Patient Management II	3

PTD 513	Cardiovascular and Pulmonary Physical Therapy I	3
PTD 514	Evidence Based Practice II	2
PTD 516	Integrated Laboratory II	2
PTD 518	Professional Formation I	1
	Term Credits	18
Second Professional Year		
First Semester (Summer)		
PTD 520	Neuroscience	3
PTD 521	Integumentary Physical Therapy	2
PTD 522	Musculoskeletal Physical Therapy I	2
PTD 526	Integrated Laboratory III	2
PTD 528	Professional Formation II	2
PTD 560	Professional Practice I	6
	Term Credits	17
Second Semester (Fall)		
PTD 530	Physical Therapy Pharmacotherapeutics	2
PTD 531	Pain	2
PTD 532	Musculoskeletal Physical Therapy II	3
PTD 533	Motor Control and Motor Learning	2
PTD 534	Neuromuscular Physical Therapy I	3
PTD 536	Integrated Laboratory IV	4
	Term Credits	16
Third Professional Year		
First Semester (Spring)		
PTD 600	Health Services	2
PTD 601	Ethics in Physical Therapy Practice	3
PTD 602	Musculoskeletal Physical Therapy III	2
PTD 604	Neuromuscular Physical Therapy II	3
PTD 606	Integrated Laboratory V	2
PTD 608	Professional Formation III	1
PTD 670	Professional Practice II	6
	Term Credits	19
Second Semester (Summer)		
PTD 610	Physical Therapy Management Systems	2
PTD 611	Introduction to Differential Diagnosis	2
PTD 612	Amputations and Prosthetics	1
PTD 613	Cardiovascular and Pulmonary Physical Therapy II	2
PTD 615	Medical Imaging: Clinical Correlates for the Physical Therapist	1
PTD 616	Integrated Laboratory VI	3
PTD 617	Clinical Electrophysiology	1
PTD 618	Professional Formation IV	1
	Term Credits	13
Fourth Professional Year		
First Semester (Fall)		
PTD 680	Professional Practice III	16
	Term Credits	16
Second Semester (Spring)		
PTD 688	Expert Practice in Physical Therapy	2
PTD 690	Professional Practice IV	16
	Term Credits	18
	Total Credits:	135-135.5

Specialty Tracks for the Physical Therapy Program

- Sport Specialty Track (http://catalog.creighton.edu/pharmacy-health-professions/physical-therapy-program/specialty-track-sport/)
- Research Specialty Track (http://catalog.creighton.edu/pharmacy-health-professions/physical-therapy-program/specialty-track-research/)

To satisfy the requirements for graduation, the student must successfully complete all courses in the physical therapy curriculum (including any and all pre-physical therapy requirements) while achieving a grade-point average of not less than 2.00. All candidates for the Doctor of Physical Therapy (DPT) degree must be determined by the faculty to be of good moral character and fit for the practice of the profession. All indebtedness to the University must be paid, and the graduate must be present at the ceremonies where the degree is conferred (unless excused under University rules). To participate in Commencement, a candidate must submit an application for degree through the Registrar's Office by the University deadline. Additionally, in an effort to comply with accreditation and ongoing programmatic quality assurance, completion of all course evaluations and senior assessments is required in order for the student to be assigned a course grade and/or graduate.

Courses

PTD 499. Directed Independent Study. 1-6 credits.
Independent study time during which students engage in a self-designed learning experience under the direction and guidance of a designated faculty member. This experience may occur in any area of physical therapy.

PTD 500. Human Anatomy. 7 credits.
Human Anatomy provides a dissection-based anatomical study of the human body. Gross anatomy, surface anatomy and embryology of the human body is explored. Students are expected to learn gross anatomy through reading, group study and dissection. Lecture and concept maps will be used in the course to introduce and reinforce anatomical concepts. Competence in applying anatomical concepts to clinical problems faced by the physical therapist is the expected outcome of the course. P. Enrollment in the Physical Therapy program.

PTD 501. Exercise Physiology and Wellness. 2 credits.
This course is designed to provide students with knowledge and application of bioenergetics related to both acute and chronic physiological adaptations of aerobic, anaerobic, and strengthening exercise. Assessment of body composition will also be measured utilizing a variety of techniques. In addition students will address specific nutritional needs and ergogenic supplementation for individuals with active lifestyles from youth to geriatric populations. P. Enrollment in the Physical Therapy program.

PTD 502. Patient Management I. 1 credit.
This course is an introduction to patient management with a focus on the healthy individual or population. This is the first semester of a two-part series. Topics include physical therapists as wellness experts, an introduction to vital signs and patient assessment, wellness and health promotion, gait and balance assessment, giving and receiving feedback, community needs assessment, and program selection. Components of this course will be incorporated into the integrated labs to expand your practice and understanding. P. Enrollment in the Physical Therapy program.

PTD 503. Behavioral and Social Science. 2 credits.
Effective human interaction is central to the physical therapist's varied roles in providing physical therapy care as an integral member of the health care team in a diverse society. This course provides students with foundational knowledge and experience in the behavioral sciences as applied to clinical practice. Theory and principles of human communication and behavior will be explored to facilitate an awareness of self and others, enhancing interactions with patients/clients, family, caregivers, health practitioners and consumers. In addition, evidence-based strategies for understanding and facilitating adaptations to illness and disability across the lifespan are introduced. P. Enrollment in the Physical Therapy program.

PTD 504. Evidence Based Practice I. 2 credits.
This course is the first of a two part series designed to develop students' inquiry skills as consumers of the literature with the ability to critically analyze and evaluate research evidence, as well as to identify researchable problems and questions. Emphasis is placed on critiquing clinical research focused on measurement, diagnosis, prevention, and treatment outcomes. Principles and application of inquiry and investigation are explored in relation to the clinical environment. Research design and statistical methods are discussed and used in the analysis of research literature. An evidence-based decision making process will be modeled, emphasizing applications for use in clinical practice. Emphasis is placed on critiquing clinical research focused on measurement, diagnosis, prevention, and treatment outcomes. P. Enrollment in the Physical Therapy program.

PTD 505. Introduction to Imaging for Physical Therapists. 1 credit.
This course provides foundational knowledge about common diagnostic imaging techniques encountered in clinical practice by physical therapists. Plain film radiography, magnetic resonance imaging, computed tomography, ultrasound imaging and nuclear medicine imaging techniques will all be introduced. The course will cover the basic physics and principles for viewing and interpreting these imaging studies. This course will integrate with other basic science coursework, such as human anatomy, and future clinical science courses, such as musculoskeletal, cardiovascular and pulmonary, and neurologic physical therapy. P. Enrollment in the Physical Therapy program.

PTD 506. Integrated Laboratory I. 1 credit.
This course is designed to synthesize content from anatomy, exercise physiology, patient management, behavioral and social sciences, and medical imaging. Clinical reasoning and psychomotor skill development will be emphasized. Students will integrate and apply elements of the patient/ client management model across the lifespan and throughout the continuum of care to promote excellence in physical therapy practice. P. Enrollment in the Physical Therapy program.

PTD 507. Emergency Medical Responder. 2 credits.
The primary focus of the Emergency Medical Responder (EMR) is to initiate immediate lifesaving care to patients, in a variety of settings. An EMR possesses the basic knowledge and skills necessary to provide lifesaving interventions while awaiting additional EMS or other medical specialists' arrival, and to assist higher level medical personnel at the scene of an emergency or during transport. Course content will include an introduction to emergency medical services, airway management and a review of professional rescuer CPR, patient assessment, initial recognition and interventions for medical and trauma emergencies, emergencies involving special patient populations, and EMS operations. P. Enrollment in the Physical Therapy program.

PTD 510. Movement Science. 4 credits.
Study of selected anatomical, structural, and functional properties of human connective tissues, muscular tissues, nervous tissues, and skeletal structures. Emphasis will be placed on mechanical, neuroregulatory, and muscular influences upon normal and pathological motion. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 511. Health Conditions for the Physical Therapist. 3 credits.
This course applies current theory of the physical therapy management of patients with acute and chronic health conditions commonly seen in practice. Primary content area will include diseases or conditions of the immune, endocrine and metabolic, lymphatic, hematologic, gastrointestinal, hepatic, pancreatic and biliary, renal and urologic, and genital and reproductive systems. The pathophysiology, medical diagnosis, clinical course, medical/surgical/health care team management and prevention will be presented as a foundation for developing a physical therapy plan of care. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 512. Patient Management II. 3 credits.
This course is a continuation to patient management concepts with a focus on the individual who is acutely or chronically ill. This is the second semester of a two-part series. Topics include infection control, management of equipment found within inpatient settings, body mechanics, bed mobility, advanced transfer training, gait training with assistive devices, documentation, and an introduction to manual techniques. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 513. Cardiovascular and Pulmonary Physical Therapy I. 3 credits.
This is the first of a two-course sequence designed to provide the student in the physical therapy management of patients/clients with diagnoses involving the cardiovascular and pulmonary systems. Physical therapy examination, evaluation, prognosis, diagnosis, intervention, and outcome assessment across the lifespan will be emphasized across the continuum of care. Student learning experiences will include lecture, small group discussions, projects and case study preparation, and clinical participation. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 514. Evidence Based Practice II. 2 credits.
This course will help develop students' inquiry skills as consumers of the literature with the ability to critically analyze and evaluate research evidence, as well as to identify researchable problems and questions. Emphasis is placed on critiquing clinical research focused on qualitative methods, treatment outcomes, clinical practice guidelines, systematic reviews, and meta-analysis. An evidence-based decision making process will be modeled, emphasizing application for use in clinical practice. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 516. Integrated Laboratory II. 2 credits.
This course is the second in a series of six laboratories designed to synthesize content from Cardiovascular and Pulmonary PT I, Kinesiology, PT Management II, and Evidence-based Practice. Clinical reasoning and psychomotor skill development will be emphasized. Students will integrate and apply elements of the patient/client management model across the lifespan and throughout the continuum of care to promote excellence in physical therapy practice. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 518. Professional Formation I. 1 credit.
This course is an introduction to professional components of Physical Therapy practice. This course will introduce students to topics addressing personal/professional reflection, professional organizations and leadership, and the role of physical therapists and other healthcare providers in clinical practice. Students will discuss APTA core values and responsibilities of being a professional. Students will also initiate preparation for clinical education experiences including development of a clinical education plan, resume, cover letter and objectives.

PTD 520. Neuroscience. 3 credits.
This course provides an overview of the development, structure, and function of the human nervous system. The emphasis of this course will be on human neurobiology as it relates to the profession of physical therapy and rehabilitation; however the material covered is relevant to any healthcare profession. Research concerning the pathophysiology of nervous system disorders and the repair and regeneration of nervous system tissue will be introduced. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 521. Integumentary Physical Therapy. 2 credits.
This course follows the clinical application of physical therapy skills within the integumentary system using the patient management model. A case-based approach will be utilized to teach clinical skills and application with the International Classification of Functioning, Disability, and Health (ICF) will occur. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 522. Musculoskeletal Physical Therapy I. 2 credits.
Musculoskeletal Physical Therapy I incorporates the study of physical therapy and the medical management of musculoskeletal disorders of the lower limb. All aspects of physical therapy management of musculoskeletal conditions will be covered, including examination, evaluation, intervention, and prognosis. practical application of course content will occur in Integrated Laboratory III.

PTD 526. Integrated Laboratory III. 2 credits.
This course is the third in a series of six laboratories designed to synthesize content from Neuroscience, Integumentary Physical Therapy, and Musculoskeletal Physical Therapy I. Clinical reasoning and psychomotor skill development will be emphasized. Students will integrate and apply elements of the patient/client management model across the lifespan and throughout the continuum of care to promote excellence in physical therapy practice. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 528. Professional Formation II. 2 credits.
This course is a continuation of student professional development. Students will continue to prepare for clinical experiences by participating in and completing mandatory training needed for patient care and self/Clinical Instructor Assessments. In addition students will explore laws, rules and policies that regulate the practice of physical therapy, including discussion ethical and moral considerations for pro bono practice. Students will learn how the profession of physical therapy can engage in the process of influencing policies related to political and patient advocacy. Students will demonstrate knowledge of State Practice Acts and other entities that regulate practice. Students will learn effective communication skills for successful interaction with patients, clinical instructors and other professionals in clinical practice. Students will complete all necessary requirements for their first clinical experience. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 530. Physical Therapy Pharmacotherapeutics. 2 credits.
This course is designed to help students gain a broad understanding of fundamental concepts and principles of drug action, drug interactions, drug compliance and dosage recommendations. Utilization of knowledge of physiology and neuroscience to develop an understanding of medications' effects on human performance throughout the life span within the context of various physical and mental dysfunctions will be expected. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 531. Pain. 2 credits.
This course will address theoretical models for understanding the basis for pain across the lifespan. Integration of pain assessment and physical therapy pain management will be addressed. Emphasis will be placed on the utilization of contemporary evidence to better inform a patient-centered treatment approach. Students will also gain insights into interdisciplinary pain management. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 532. Musculoskeletal Physical Therapy II. 3 credits.
Musculoskeletal Physical Therapy II incorporates the study of physical therapy and the medical management of musculoskeletal disorders of the upper limb and some contemporary intervention techniques. All aspects of physical therapy management of musculoskeletal conditions will be covered, including examination, evaluation, intervention, and prognosis. Practical application of course content will occur in Integrated Laboratory IV.

PTD 533. Motor Control and Motor Learning. 2 credits.
This course will provide the students with a foundation in the latest theories of motor control and motor learning as well as an introduction to evidence-based tools for effective application of these concepts to physical therapy practice. Emphasis is placed on a task-oriented approach to examination and interventions related to posture, balance, sensory integration, mobility and upper extremity function throughout the lifespan to promote an understanding of normal motor development and the effects of aging on the production of movement. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 534. Neuromuscular Physical Therapy I. 3 credits.
This course is part of the neuromuscular course sequence preparing the student to determine all components of the patient management model (physical therapy examination, evaluation, diagnosis, prognosis, and intervention) for the adult and child with acquired or congenital nervous system dysfunction and their social unit. Emphasis will be placed on the health conditions of the pediatric patient as well as adults with stroke and vestibular dysfunction. Facilitation of clinical reasoning skills incorporating all factors of the ICF framework including the context of individual growth, development, and change across the lifespan will be utilized to advance the student's thought process. Active learning strategies including case application and discussion, video case analysis, and incorporation of evidence-based practice will be used to enhance learning. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 536. Integrated Laboratory IV. 4 credits.
This course is the fourth in a series of six laboratories designed to synthesize content from Neuroscience Physical Therapy I, Musculoskeletal Physical Therapy II, Motor Control and Motor Learning, and Pain courses in a comprehensive, patient-centered approach across the lifespan. Clinical reasoning and psychomotor skill development will be emphasized. Students will integrate and apply elements of the patient/client management model across the lifespan and throughout the continuum of care to promote excellence in physical therapy practice. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 560. Professional Practice I. 6 credits.
This course is comprised of a six-week clinical education experience focusing on clinical learning and developing self-responsibility, self-assessment, and an understanding of professional competence. Students participate in an assigned clinical site. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 580. Independent Study in Physical Therapy. 0-6 credits.
Independent Study in Physical Therapy offers an opportunity for physical therapist students to develop and work in a course of study under the direction and guidance of a faculty member. With agreement and mentoring of a faculty member, a student may 1) pursue, in depth, an area of the curriculum, 2) explore a physical therapy topic not covered in the curriculum or 3) assist with research in a faculty member's area of interest. P. Enrolled full-time in the professional program with satisfactory completion of all coursework to date. Instructor consent.

PTD 581. Special Topics in Rehabilitation Science. 1 credit.
This seminar course will explore critical questions, problems, and contemporary issues in rehabilitation research. Specific emphasis will be on interpretation of both laboratory and clinical research. Topics vary with each iteration of the course permitting students to repeatedly enroll for the course but with each covering a different topic. P. Enrolled in the professional PT program with satisfactory completion of all coursework to date. Instructor and academic advisor consent.

PTD 582. Rehabilitation Science Research Practicum. 2 credits.
This course provides an opportunity for students to conduct research projects, under the direction and guidance of a faculty member. The student will develop skills in research design, data collection, data analysis, and dissemination. This course is structured as a contact in which the student and faculty advisor establish specific learning objectives, a defined scope of work, and specific products to be completed which may include a presentation or publication. P. Enrolled in the professional PT program with satisfactory completion of all coursework to date. Instructor and academic advisor consent.

PTD 590. Directed Study in Physical Therapy. 0-6 credits.
The purpose of Directed Study in Physical Therapy is to ensure that a student who is re-entering a program after a temporary withdrawal or to retake a required course is prepared and safe to re-enter the curriculum and/ or clinical experiences after an absence. PTD 590 is composed of the comprehensive clinical practical and written examinations for the: 1) student's last successfully completed semester in the curriculum. 2) re- enrolled semester if the student is re- taking a course other than Integrated Laboratory I- VI. The course may also include any content assigned in a Corrective Action Plan to prepare students for these examinations. P. Enrolled full time in the professional program and re-entering the program after a temporary withdrawal or to retake a required course in the curriculum (other than Integrated Laboratory I-VI); Instructor consent.

PTD 600. Health Services. 2 credits.
A study of health care policy and delivery as it affects the practice of physical therapy. Principles of access, cost and quality of health services are introduced as they affect patient, payer and provider. The course includes the examination of government and regulatory systems; insurance; economic, political and cultural forces; professional and social values which influence contemporary physical therapist practice. The organization of the health care system where physical therapists work is introduced. The student will be able to apply the information in this course to the completion of a market analysis for a physical therapist practice. The federal efforts to reform the health care system will be explored. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 601. Ethics in Physical Therapy Practice. 3 credits.
This course prepares physical therapy students to approach ethical dilemmas objectively with a thorough understanding of professional moral responsibility. Students learn to distinguish ethical from other kinds of issues in health care; identify the morally relevant features of a case; identify the options open to a therapist faced with a moral problem; provide justification for the best options; consider counter arguments for one's positions; and identify deliberate actions consistent with respect for human dignity. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 602. Musculoskeletal Physical Therapy III. 2 credits.
Musculoskeletal Physical Therapy III incorporates the study of physical therapy and the medical management of musculoskeletal disorders of the spine and related disorders. All aspects of physical therapy management of musculoskeletal conditions will be covered, including examination, evaluation, intervention, and prognosis. Practical application of course content will occur in Integrated Laboratory V.

PTD 604. Neuromuscular Physical Therapy II. 3 credits.
This course is part of the neuromuscular sequence and builds on the knowledge and skills gained in Neurobiology, Motor Control and Motor Learning and Neuromuscular Physical Therapy I. Specifically, this course continues to prepare the student to determine all components of the patient management model for patients with neurologic dysfunction including traumatic brain injury, spinal cord injury, progressive disorders, non-progressive disorders, and peripheral neuropathy. Intervention strategies focus on applying the International Classification of Functioning, Disability, and Health framework to patient cases and improving functional recovery. Facilitation of clinical reasoning skills incorporating all factors of the ICF framework will be utilized to advance the student's thought process. Active learning strategies of case application and discussion, video case analysis, and incorporation of evidence-based practice will be used to enhance learning. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 606. Integrated Laboratory V. 2 credits.
This course is the fifth in a series of six laboratories designed to allow the student to apply, integrate, and demonstrate psychomotor skills relevant to content from Neuromuscular Physical Therapy II, Musculoskeletal Physical Therapy III and previous clinical courses in the curriculum. Clinical reasoning and psychomotor skill development will be emphasized. Students will integrate and apply elements of the patient/client management model across the lifespan and throughout the continuum of care to promote excellence in physical therapy practice. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 608. Professional Formation III. 1 credit.
Professional Formation III is a continuation of student professional development. This course emphasizes a professional approach to clinically relevant topics such as workplace violence and professional burnout. Professional communications and the role of the professional as an educator and lifelong learner will be explored. Students will engage in topics related to the role physical therapy serves on a global market, including an understanding of organizational structures supporting international rehabilitation. In addition, conceptual applications of social justice, political advocacy, and serving a profession that seeks to address societal needs will be covered. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 610. Physical Therapy Management Systems. 2 credits.
An introduction to management theory and practice in physical therapy including human resources, organizational change, leadership and team building, strategic planning, financial management including reimbursement, quality management, legal and regulatory issues, facility planning and marketing. Management decision making regarding investment, financing and operations is emphasized within the context of a business system. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 611. Introduction to Differential Diagnosis. 2 credits.
An introduction into differential diagnosis as it applies to physical therapy will focus on the diagnostic process in evaluation of musculoskeletal, cardiopulmonary, GI/GU/renal and psychological systems. Emphasis will be on differentiating neuromusculoskeletal problems from systemic conditions, recognizing emerging red flags and deciding on course of action. Readings will be applied to case discussions. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 612. Amputations and Prosthetics. 1 credit.
This course focuses on the physical therapy examination, evaluation, and interventions for patients with amputations/prostheses. Included are the causes and types of limb amputations, a survey of available prosthetic componentry, the multidisciplinary teach approach for care of a person with an amputation and the occupational recreational aspects of prosthetic use. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date or permission of both the Course Director and Department Chair.

PTD 613. Cardiovascular and Pulmonary Physical Therapy II. 2 credits.
This is the second of a two-course sequence designed to prepare the student in the physical therapy management of patients/clients with diagnoses involving the cardiovascular and pulmonary systems. Physical therapy examination, evaluation, prognosis, diagnosis, intervention, and outcome assessment across the lifespan will be emphasized across the continuum of care. Student learning experiences will include lecture, small group discussions, projects and case study preparation, and clinical observations. P. Enrolled in professional physical therapy program with satisfactory completion of all coursework to date.

PTD 615. Medical Imaging: Clinical Correlates for the Physical Therapist. 1 credit.
This course provides the opportunity for students to integrate information from medical imaging studies with other patient data in a case-based format. Students will utilize available clinical decision making guidelines to help make recommendations about whether imaging is needed in a given clinical scenario, and which type of imaging is optimal. They will also use imaging data to guide choices for physical therapy patient management. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 616. Integrated Laboratory VI. 3 credits.
This course is the sixth in a series of six laboratories designed to allow the student to apply, integrate, and demonstrate psychomotor skills relevant to content from Amputations and Prosthetics, Cardiovascular and Pulmonary Physical Therapy II, Medical Imaging II, and Differential Diagnosis with an emphasis on clinical reasoning and psychomotor skill development. Additionally, students in this course will have the opportunity to integrate clinical skills from other courses as they apply to the patient/client management model. During this course, students will have the opportunity to engage in a patient care experience that includes initial examination, treatment, re-assessment and discontinuation of the episode of care. This experience will provide students the opportunity to utilize critical analysis of scientific literature and clinical reasoning for evidence based practice, engage in documentation of patient interactions and demonstrate effective communication skills when interacting with faculty, peers, and patients.

PTD 617. Clinical Electrophysiology. 1 credit.
This course focuses on clinical electrophysiologic examination and evaluation of patients. The learner will safely and correctly use typical electrophysiology measurement equipment to capture and interpret NCV and EMG data. This includes performance and assessment of the results of motor and sensory nerve conduction velocity (NCV) studies of the extremities and the assessment of extremity muscles through the use of monopolar electromyography (EMG). This requires knowledge of normal and abnormal neurophysiology, neuromuscular degeneration and regeneration, and a working knowledge of relevant neuropathic and myopathic disease processes.

PTD 618. Professional Formation IV. 1 credit.
This is the fourth of a four-course sequence threading professional development throughout the didactic curriculum. Students will continue to prepare for clinical experiences by participating in and completing all of the mandatory training needed for patient care and self/Clinical Instructor Assessments. In addition, students will explore topics including the National Physical Therapy Examination (NPTE), hospice and palliative care, advanced clinical reasoning, and post-professional educational opportunities. Students will engage in professional development by participating in and reflecting on community service and/or professional service experiences. Students will also demonstrate a comprehensive synthesis of knowledge by assessment on the TherapyEd practice examination. Additionally, students will actively participate in a 2-day TherapyEd board review course to prepare for the NPTE. P. Enrollment in the Physical Therapy program with satisfactory completion of all coursework to date.

PTD 651. Advanced Sports Rehabilitation I. 1 credit.
This course will focus on clinical management of musculoskeletal injuries that primarily occur with sport related activities. Major topics include prevention, sports-specific rehabilitation, and performance enhancement. P. Enrolled in the professional program with satisfactory completion of all coursework to date. Instructor and academic advisor consent.

PTD 661. Advanced Sports Rehabilitation II. 1 credit.
This course will prepare individuals for acute management of injuries and illness that primarily occur with sport related activities. Major topics include assessment and treatment of acute injury or illness, referral and return to activity decisions, and equipment management.

PTD 670. Professional Practice II. 6 credits.
A continuation of the Professional Practice course sequence. This courses focuses on clinical learning and assisting students in developing self-responsibility, self-assessment, and an understanding of professional competence. The course is a full time six week professional practice experience. P. Enrolled in the professional program with satisfactory completion of all coursework to date.

PTD 680. Professional Practice III. 16 credits.
This course is a 18-week professional practice experience that requires the student to integrate the knowledge and skills from all previous academic and clinical coursework. CO: Enrolled in the professional program with satisfactory progress in all courses to date.

PTD 688. Expert Practice in Physical Therapy. 2 credits.
This is the capstone course for students returning from their extended clinical affiliations. Students are encouraged to reflect upon their professional development to date and recognize the opportunities and professional duties for moving from novice to expert practitioner in the future. Certification as a clinical specialist, graduate school, utilization of the scientific literature, reflection on practice, professional writing and public presentation skills are explored. Life-long learning and the responsibilities/ opportunities of assuming the role of program alumnus related to professional development and the Creighton University mission are emphasized.

PTD 690. Professional Practice IV. 16 credits.
This course is a 16-week professional practice experience that requires the student to integrate the knowledge and skills from all previous academic and clinical coursework. P. Enrolled in the professional program with satisfactory completion of all coursework to date. CO: PTD 688.