

PHYSICAL THERAPY

Physical Therapy Department
 Andrews University
 Berrien Springs, MI 49104-0420
 (269) 471-AUPT or 800-827-AUPT
 FAX: (269) 471-2866
<http://www.andrews.edu/PHTH/>
 Admissions Fax: (269) 471-2867
 Admissions Email: pt-info@andrews.edu

Faculty

Wayne L. Perry,
 A. Lynn Millar,
 John C. Banks
 Kathy A. Berglund,
 John Carlos, Jr.
 Norene M. Clouten
 Elizabeth Oakley
 Lee E. Olson
 David P. Village

Academic Credits	Credits
BHS: Bachelor of Health Science (Interim degree for DPT students)	
DPT: Doctor of Physical Therapy	116
BS: Anatomy & Physiology (phasing out) Interim degree for MSPT students)	
t-DPT: Doctor of Physical Therapy	30-38
DScPT: Doctor of Science in Physical Therapy	64

Physical therapy is a health profession dedicated to evaluating, treating, and preventing physical injury and disease. Physical therapists design and implement the necessary therapeutic interventions to promote fitness, health and improve the quality of life in patients. They also become active in consultation, education and research.

Physical therapists work closely with their client's family, physician, and other members of the medical team to help their client return to their home environment and resume activities and relationships of normal daily living.

Academic Calendar. Contact the Physical Therapy Department for academic dates.

2005

May

16	Mon	DPT Term 3 begins (16 weeks including 4-week Clinical Practicum); DPT Term 6 begins (10 weeks)
23	Mon	DPT Term 9 begins (10-week Clinical Affiliation IV, plus 1-week seminar)

August

29	Mon	DPT Terms 1, 4 (didactic) and Term 7 (16-week Clinical Affiliations I and II)
----	-----	---

2006

January

9, 10	Mon, Tues	DPT written comprehensives
-------	-----------	----------------------------

10	Tues	DPT Terms 2, 5 begin (didactic)
11	Wed	Term 8 begins (10-week didactic plus 10-week Clinical Affiliation III)

PROFESSIONAL ENTRY-LEVEL PROGRAMS

Doctor of Physical Therapy (DPT). This three-year program is taught on the Berrien Springs campus and begins after a student completes 92 semester credits of college prerequisites. A previous college degree is not necessary. Students without a bachelor's degree may earn a Bachelor of Health Science (BHS) after the first year in the professional program and will earn the DPT degree upon successful completion of the program.

Master of Physical Therapy (MPT). The department is no longer enrolling students in the MPT Program on the Dayton, Ohio campus. For specific degree information, please see the bulletin of the admission year to the professional program.

ACCREDITATION AND BOARD CERTIFICATION

The DPT and MPT programs are all accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). After receiving the degree graduates may apply to take the state board examination in the state of their choice.

INFORMATION/APPLICATION PACKETS

Please call 1-800-827-2878, email pt-info@andrews.edu or visit www.pt.andrews.edu for packets, which describe admission requirements and provide all necessary forms for the DPT professional entry-level program. Information is available by June of each year. Applicants holding a bachelors or advanced degree are welcome to apply.

DPT PROGRAM (Entry-Level)

ADMISSION REQUIREMENTS

There are three tracks for admission into the Andrews University DPT program:

Early Acceptance

Acceptance into the program is guaranteed if you enroll as a freshman pre-physical therapy major completing at least 90% of prerequisite course requirements at Andrews University, earn the required GPA and receive positive evaluations.

Preferred Admissions (Early Transfer Students)

Students who transfer into Andrews University for at least their last semester to complete prerequisite courses, earn the required GPA and receive positive evaluations, will be given preference for admission into the professional program.

Transfer Students

The Andrews University physical therapy programs enroll students from a nationwide pool. Any student who has completed prerequisite courses from an accredited college or university (or U.S. equivalent) is welcome to apply for acceptance.

Admission to the DPT program is selective based on the following considerations:

POSTPROFESSIONAL PROGRAMS

- Doctor of Physical Therapy (t-DPT)
- Doctor of Science in Physical Therapy (DScPT)

These postprofessional programs are designed to provide practicing physical therapists with the opportunity to obtain post-professional studies and an advanced clinical doctoral degree in the field of their discipline without the need to terminate or significantly change their regular employment or lifestyle. Classes are either taught in a short-course format of no more than six days per session, or done by distance learning. All courses may be taken

PHTH648	(1–4)	underlying muscle and bone structures, joint motion (goniometry), manual procedures for testing muscle strength sensation, vital signs, limb girth and volumetric measurement will be practiced.
PHTH690	(1–4)	Clinical application in basic physical therapy care procedures will be introduced. Corequisite: PTH415.
Individualized study and/or research in a specialized area under the guidance of an instructor. Permission from the department chair required prior to registration. Repeatable to 8 credits.		
DPT PROGRAM		
PTH400	◆ (4)	
A comprehensive study of human anatomy with emphasis on the nervous, skeletal, muscle, and circulatory systems. Introduction to basic embryology and its relation to anatomy and the clinical sciences concludes the course. Provides a solid morphological basis for a synthesis of anatomy, physiology, and the physical therapy clinical sciences. Corequisite: PTH410.		
PTH410	◆ (3)	
Dissection and identification of structures in the cadaver supplemented with the study of charts, models, prosected materials and radiographs are used to identify anatomical landmarks and configurations. Corequisite: PTH400.		
PTH415	◆ (4)	
Introduction to assessment principles and examination skills utilized in all areas of physical therapy. The is referenced for the basic skills required in the assessment, intervention and documentation guidelines. Corequisite: PTH425.		
PTH416	◆ (3)	
The study of human movement including an introduction to the basic concepts of biomechanics with an emphasis on human joint/muscle structures and function, advancing to analysis of body mechanics, normal gait analysis, and pathological movement analysis. Joint abnormalities will be identified using radiographs, related to the resultant movement dysfunction. Prerequisites: PTH400 and 410. Corequisite: PTH426.		
PTH418	◆ (2)	
Clinical techniques applied to the examination, evaluation, treatment, and discharge planning of patients in general medical and acute-care. Emphasis on physical therapy intervention with relevant factors, management of pain and physical complications during medical treatment, and examination and treatment of special populations including wound and burn care. Corequisite: PTH428.		
PTH420	◆ (3)	
Basic principles, physiologic effects, indications and contraindications, application and usage of equipment, and intervention rationale for hydrotherapy, thermal agents, wound care, massage, electrotherapy and mechanotherapy (traction) and other therapeutic interventions. Corequisite: PTH430.		
PTH425	◆ (2)	
Basic examination skills including surface palpation of specific		
PTH426	◆ (2)	
Biomechanical, and observational analysis, of normal and abnormal human movement. Integration of basic examination skills with gait and movement analysis. Prerequisites: PTH400 and 410. Coerequisite: PTH416.		
PTH428	◆ (1)	
Practice in assessment modified for the acute-care environment. Applications include home-and work-place evaluation for architectural barriers, functional evaluation tools, casting, and modification of treatment for acute care including goal setting and professional note writing. Corequisite: PTH418.		
PTH430	◆ (2)	
Supervised practicum includes patient positioning and application of the therapy to obtain desired physiological response. Techniques of hydrotherapy, thermal agents, wound care, and massage, as well as specific electrotherapy and mechanotherapy treatments and assessment of physiological responses to those treatments. Corequisite: PTH420.		
PTH440	◆ (3)	
Sequence studying disease processes affecting major body systems and the resulting anatomical and pathophysiological changes. Clinical presentations and pharmacological treatment of patients with those disease processes are presented, as well as diagnostic tests and laboratory values used to identify pathological conditions. Prerequisites: PTH400 and 410.		
PTH445	◆ (2)	
Basic anatomy and functions of the central and peripheral nervous systems and their related structures. Pathways of the central and peripheral nervous system are examined along with a detailed study of each of the 12 pairs of cranial nerves. Prerequisites: PTH400 and 410. Corequisite: PTH455.		
PTH450	◆ (1)	
An introduction to the function and interaction of the primary areas of the nervous system involved in controlling human movement, including the cortex, spinal cord, peripheral receptor system, basal ganglia, cerebellum, and the vestibular systems. Students are introduced to terminology and concepts associated with both normal function and pathology in these areas.		
PTH455	◆ (1)	
Study of the prosected central and peripheral nervous tissues, models, and charts. Imaging will be used to compare normal to abnormal CNS presentation. Prerequisites: PTH400 and 410. Corequisite: PTH445.		

PTH457	◆ (2)	PTH611	(2)
Medical lectures covering selected topics in orthopedics, including common orthopedic diseases and the use of diagnostic testing and imaging in the orthopedic field.		Clinical application and practice in the special techniques to assess and treat acute and chronic orthopedic pathologies of the extremities and spine. Corequisite: PTH601.	
PTH460	◆ (2)	PTH612	(2)
This course surveys the major religious traditions of the world. Study includes an overview of origins; major philosophical and theological underpinnings; typical aspects of worship and ethics; and major social, cultural, and political influences. Study is done from a consciously Christian framework.		Designed for practice of the special techniques required in the assessment of intervention of acute and chronic orthopedic pathologies of the cervical, thoracic, and lumbar spine. Corequisite: PTH602.	
PTH495	(1–4)	PTH620	(1)
Permission of department chair required prior to registration for all independent work. Repeatable to 8 credits.		Practical demonstration and experience with responses to exercise, testing procedures, and exercise prescription, focusing on activities appropriate for clinical situations. Tests and interventions noted in the are highlighted. Corequisite: PTH610.	
PTH540	(2)	PTH621	(2)
Sequence studying disease processes affecting major body systems and the resulting anatomical and pathophysiological changes. Clinical presentations and pharmacological treatment of patients with those disease processes considered, as well as diagnostic tests and laboratory values used to identify pathological conditions. Prerequisites: PTH400 and 410.		Introduction to the principles and practice of research, including designs, ethics, hypothesis testing and critical evaluation of clinical literature. Preparation and development of a graduate research proposal is interwoven throughout this course.	
PTH589	(1–2)	PTH622	(1)
		Fundamental procedures in collecting, summarizing, presenting, analyzing, and interpreting statistical data. Statistical tests applied to medical specialties. Corequisite: PTH632.	
PTH590	(1–4)	PTH625	(1)
Selected topics in physical therapy. Permission of department chair required. Repeatable. Specific prerequisites may be required for some subject areas.		Lectures covering selected topics in cardiopulmonary medicine, focusing on clinical presentation, diagnostic tests, and medical and physical therapy interventions. Corequisite: PTH635.	
PTH601	(2)	PTH627	(1)
Presentation of fundamental physical therapy knowledge in the assessment and intervention of a patient with both acute and chronic conditions of the extremities. Screening of the cervical and lumbar spine prior to tests is covered, progressing to complete assessment and treatment of extremity joint pathologies. Diagnostic tests and results pertinent to the orthopedic patient are related to a physical therapy differential diagnosis. Corequisite: PTH611.		Prosthetic management of upper- and lower-limb amputee, orthotic management of patients with disabilities requiring orthotic intervention, and application/management of orthotic-traction devices. Corequisite: PTH637.	
PTH602	(2)	PTH632	(1)
A continuation of the presentation of information regarding orthopedic pathology of the spine with emphasis on treatment techniques for the different pathologies from a physician and physical therapist's perspective. A decision making model focusing on a differential diagnosis is incorporated throughout the course. Corequisite: PTH612.		Practice in the computation of statistical data using appropriate formulas. Practical applications of techniques in research and statistical computations including probability, normal distribution,	
PTH610	(2)		
Examines the systemic responses to exercise as related to both an acute nature and in response to training. Specific pathological conditions are discussed in relation to exercise testing and prescription, and a clinical decision making process is presented for working with additional pathological conditions. Corequisite: PTH620.			

PTH725	(1)	PTH747	(1)
Practice and application of skills required in working with orthopedic and neurologically involved pediatric patients as well as pediatric patients that show developmental risk factors and/or delays. Corequisite: PTH715.		Practice in advanced examination and intervention procedures for orthopedic pathology with special emphasis on athletic injuries. Practice of different exercise regimens and taping techniques. Corequisite: PTH737.	
PTH726	(2)	PTH748	(1–2)
Study of the unique characteristics of the geriatric patient, especially the physiological, psychological and social aspects, related to special needs in the physical therapy assessment, plan of care, and intervention.		Examines and applies educational theory to skills utilized by the physical therapist in the classroom, community, and clinical facility. Topics include the educational role of the physical therapist, the taxonomies of learning, learning styles, multiple intelligence, and educational technology.	
PTH727	(1)	PTH749	(1)
Designed for the clinical application and practice of special techniques in complementary aquatic and therapies. Corequisite: PTH717.		Advanced practice and application of clinical skills required in the physical therapy assessment and intervention of women's health. Corequisite: PTH739.	
PTH728	(1)	PTH765	(1–2)
This course emphasizes the principles of Christian stewardship in everyday life. It addresses stewardship not only as it relates to finances but also to other human resources such as time, and talent. It will also include the elements of family budgeting and investing.		Contemporary ethical issues are explored, including the relationships among peers, superiors, subordinates, institutions, clients, and patients. Illustrations include actual cases related to Christian biblical principles.	
PTH735	(2)	PTH768	(1)
A broad overview of occupational medicine with emphasis on assessment and intervention procedures for industrial rehabilitation. An instructional block included on the prevention of work-related injuries with an evaluation of the workplace and the development of appropriate job descriptions. Corequisite: PTH745.		Summarization of previous or added learning experiences relative to contemporary issues in physical therapy. An overview of the new graduate's role and responsibility to his/her patients and their families, employer, and community in the expanding physical therapy profession.	
PTH736	(3)	PTH788	(0)
An introduction to psychosocial responses to illness and disability, especially the interpersonal relationships between the therapist, the family and the patient. Common psychiatric disorders are discussed along with their clinical diagnosis, treatment regimes, projected outcomes and methods for handling these responses in clinical situations.		Non-package, reduced tuition rate applies.	
PTH737	(2)	PTH799	(1–3)
Advanced understanding of orthopedic pathology of the spine and extremity joints, with attention to athletic injuries of these areas. Measures covered include the pre-participation physical exam, designing conditioning programs, taping, equipment fitting, advanced first aid for evaluating and treating field injuries, and other selected orthopedic pathology. Corequisite: PTH747.		Provides students with guidelines and supervision for data collection, analysis, capstone project preparation and oral presentation.	
PTH739	(2)	PTH880	(1)
An advanced understanding of issues relating to the physical therapy assessment and intervention of women's health concerns. Clinical areas covered include pregnancy, menopause, post-mastectomy and hysterectomy rehabilitation. Corequisite: PTH749.		Preparation of a personal portfolio, assessment of the clinical experiences and preparation for professional licensure.	
PTH745	(1)	PTH881, 882, 883, 884	(4, 4, 5, 5)
Observation, demonstration, and practice in the assessment, intervention, and patient instruction procedures relating to occupational medicine. Corequisite: PTH735.		Advanced full-time clinical experience (8-10 weeks each) in a variety of professional practice settings. One of the affiliations must be in outpatient orthopedics, inpatient, and a neurology setting. Thirty-six to forty hours per week. May be repeated.	
		TRANSITIONAL DPT PROGRAM	
		PTH460	(2)
		This course surveys the major religious traditions of the world. Study includes an overview of origins; major philosophical and	

theological underpinnings; typical aspects of worship and ethics; and major social, cultural, and political influences. Study is done from a consciously Christian framework.

PTH500 (2)

A degree orientation which will include portfolio development and assessment, introduction to NAIOMT, development of the degree contract, usage of James White Library system, and introduction to the

PTH507 (3)

Lecture/lab course studying regional anatomy and biomechanics as they relate to normal movement and the potential development of movement dysfunctions. Correlations between pathomechanics, clinical presentation of pathology and decision making for therapeutic interventions will be drawn.

PTH545 (3)

The review of human physiological function of the major body systems with clinical application to musculoskeletal, cardiovascular and pulmonary conditions. Detailed information on exercise physiology will be discussed along with clinical applications among patients with compromised health.

PTH549 (3)

Theory and application of complexity sciences to organizational management; exploration of key leadership roles and changing paradigms; presentation of methods to maximize personal and professional life.

PTH615 (2)

Develops a non-prescriptive knowledge of specific medications including indications, contraindications, precautions, adverse reactions, and dosage, especially as related to physiological effects of physical therapy interventions.

PTH630 (2)

Introduces the student to basic concepts of biostatistics and research design and the formulation of evidence based practice theories.

PTH646 (2-3)

A discussion of spiritual values from a Christian perspective, how faith and spirituality facilitate the healing process, and how these can be incorporated into patient care. Attention will be given to discerning and addressing the spiritual needs of patients/clients, family members, and ancillary medical staff in a professional environment.

PTH718 (3)

Knowledge and clinical skills designed for screening patients for medical conditions. Differential diagnosis is addressed through comparison of systematic signs and symptoms. Appropriate diagnostic tests which may indicate involvement of a problem outside the scope of PT practice are addressed. Enhances professional communication with other healthcare practitioners included in the referral process.

PTH730 (2)

Addresses imaging, body chemistry values and data derived from musculoskeletal, neurologic, vascular, cardiac and pulmonary testing with the purpose of understanding the disease process. Application of knowledge will determine differential diagnoses.

PTH740 (3)

This course continues to cover the topic introduced in PTH630 in a more in depth fashion. The student will learn how to set up a research study as well as review the literature and analyze the validity of the information presented. An introduction to setting up outcome studies will also be covered.

PTH748 (1-2)

Examines and applies educational theory to skills utilized by the physical therapist in the classroom, community, and clinical facility. Topics include the educational role of the physical therapist, the taxonomies of learning, learning styles, multiple intelligence, and educational technology.

PTH750 (2)

An introduction to the integration of the physical therapist as consultant. Discussion will include applying physical therapy consultation services to individuals, business, schools, government agencies and/or other organizations.

PTH760 (2)

Information presented on how to develop and present a publishable quality case study. It also includes the actual practice of doing an outcomes study in the clinical environment.

PTH798 (1-10)

Serves as an essential outcome component to augment the professional development and new learning that occurs in didactic course work of the postprofessional doctoral degree and demonstrates the ability of the DPT/DScPT to make significant contributions to the profession and/or serve as a change agent in the field of physical therapy.

DScPT PROGRAM

PTH460 (2)

This course surveys the major religious traditions of the world. Study includes an overview of origins; major philosophical and theological underpinnings; typical aspects of worship and ethics; and major social, cultural, and political influences. Study is done from a consciously Christian framework.

PTH500 (2)

A degree orientation which will include portfolio development and assessment, introduction to NAIOMT, development of the degree contract, usage of James White Library system, and introduction to the

PTH507 (3)

Lecture/lab course studying regional anatomy and biomechanics

- PTH632** (1.5) Builds on concepts and techniques introduced in Level I. Adds SCS for distal extremity joints, full body motion analysis and SCS screen from which a plan for point release and neuromotor re-education is developed. More neuromotor reeducation exercises and options, and identifying and correcting vector(s) of traumatic injury. Prerequisite: PTH631.
- PTH646** (2-3) Discussion of spiritual values from a Christian perspective, how faith and spirituality facilitate the healing process, and how these can be incorporated into patient care. Attention will be given to discerning and addressing the spiritual needs of patients/clients, family members, and ancillary medical staff in a professional environment.
- PTH697** (2) The student, working with their advisor and following degree/course guidelines, will develop an independent 40-hour learning contract with a qualified clinical specialist to facilitate intensive focused clinical training in a field of study of their choosing.
- PTH718** (3) Knowledge and clinical skills designed for screening patients for medical conditions. Differential diagnosis is addressed through comparison of systematic signs and symptoms. Appropriate diagnostic tests which may indicate involvement of a problem outside the scope of physical therapy practice are addressed. Enhances professional communication with other healthcare practitioners included in the referral process.
- PTH730** (3) Addresses imaging, body chemistry values and data derived from musculoskeletal, neurologic, vascular, cardiac and pulmonary testing with the purpose of understanding the disease process. Application of knowledge will determine differential diagnoses.
- PTH740** (3) This course continues to cover the topic introduced in PTH630 in a more in-depth fashion. The student will learn how to set up a research study as well as review the literature and analyze the validity of the information presented. An introduction to setting up outcome studies will also be covered.
- PTH748** (1-2) Examines and applies educational theory to skills utilized by the physical therapist in the classroom, community, and clinical facility. Topics include the educational role of the physical therapist, the taxonomies of learning, learning styles, multiple intelligence, and educational technology.
- PTH750** (2) An introduction to the integration of the physical therapist as consultant. Discussion will include applying physical therapy consultation services to individuals, business, schools, government agencies and/or other organizations.
- PTH760** (2) Information presented on how to develop and present a publishable quality case study. It also includes the actual practice of doing an outcomes study in the clinical environment. Prerequisites: PTH630, 740.
- PTH798** (1-10) Serves as an essential outcome component to augment the professional development and new learning that occurs in didactic course work of the postprofessional doctoral degree and demonstrates the ability of the DPT/DScPT to make significant contributions to the profession and/or serve as a change agent in the field of physical therapy.