

PHYSICAL THERAPY

Physical Therapy Department
 Andrews University
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Faculty

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

Graduate Programs

Doctor of Physical Therapy (DPT)

This three-year program begins after a student completes 92 semester credits of college prerequisites. A previous college degree is not required. 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.

Professional Accreditation

The DPT program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). After receiving the DPT degree graduates may apply to take the state board examination in the state of their choice.
 * 1111 North Fairfax, Alexandria, VA 22314

Information Packet

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.

Admission Requirements

There are three tracks for admission into the DPT program. The minimum requirements to be considered for admission are:

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:

- Prerequisite Courses:** A bachelor's degree or 92 semester credits of course work with at least 15 upper division credits from three or more content areas.

—A full sequence of anatomy and physiology or general biology with labs **plus** an upper division science course(s) related to human physiology or human biology.

Academic Credits	Credits
BHS: Bachelor of Health Science (Interim degree for DPT students)	116
DPT: Doctor of Physical Therapy	
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.

Mission

In accordance with the Seventh-day Adventist Church, Andrews University, and the College of Arts and Sciences, the Physical Therapy Department mission is to provide professional education with an emphasis on faithful witness to Christ through service to others. The physical therapy *department* provides resources and encourages faculty to continue their educational, professional, and spiritual growth. The physical therapy *faculty* delivers, within a Christ-centered environment, the knowledge base and clinical skills that will prepare students for contemporary physical therapy practice. Physical therapy *graduates* will serve Christ as evidenced by their ministering to the needs of others through the delivery of effective professional healthcare. The physical therapy department faculty and graduates comprise a Christian network that is balanced in the development of the spiritual, mental, physical, and social life of its members.

—*Option 1*: A full sequence of general physics with labs as required for physics majors or pre-med students **plus** any two chemistry courses with labs; or
Option 2: A full sequence of general chemistry with labs as required for chemistry majors or pre-med students **plus** any two physics courses with labs.

—A course in basic medical terminology. May be taken by distance learning.

—A PT department approved basic computer applications course or documentation of proficiency on Computer Literacy Form to those with a bachelor's degree.

—A basic statistics course.

—An introductory psychology course.

—A course which covers physical, social, and psychological development beginning with conception.

* —One course from the following options: sociology, geography, anthropology, minority groups, diversity, economics, American Government.

* —Two English Composition courses which include writing components.

—A course in basic communication skills.

* —An appreciation, theory or introductory/history course in music, art, photography, etc. or 1 year of ensemble music (Private music lessons do not apply.)

* —One course from the following options: ethics,

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POSTPROFESSIONAL PROGRAMS

- Transitional 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 postprofessional 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 to earn academic credit or continuing education units (CEUs).

Transitional Doctor of Physical Therapy (t-DPT)

Admission Requirements

The minimum requirements to be considered for admission are:

1. Hold current licensure as a physical therapist in U.S. or Canada.
2. Submit graduate application.
3. Submit a minimum of three satisfactory recommendations: one from a currently practicing physical therapist, one from a medical doctor, and one from another person familiar with the candidate.
4. Graduate of an accredited physical therapy school.
5. Receipt of GRE scores taken within the last 5 years.
6. For candidates holding a bachelor's degree with no advanced master's, receipt of PTET scores.

Degree Requirements

The following departmental/program requirements apply to students graduating from the postprofessional DPT program.

1. Satisfactory completion of, or competency in, the following courses: PTH500, 507 or 545, 549, 590, 615, 630, 646, 718, 730, 740, 748, 750, 798
2. No grade lower than C (2.0) in any course.
3. A minimum cumulative GPA of 3.00.
4. Successful completion of the capstone project.

Doctor of Science in Physical Therapy (DScPT)

This degree is designed to prepare the clinical specialist in orthopedic manual therapy and incorporates courses from the North American Institute of Orthopedic Manual Therapy.

Admission Requirements

The following admissions requirements apply.

1. Hold current licensure as a physical therapist in U.S. or Canada.
2. Proof of employment in an orthopedic setting, at least 20 hours per week.
3. Submit graduate application.
4. Submit a minimum of three satisfactory recommendations: one from a currently practicing physical therapist, one from a medical doctor, and one from another person familiar with the candidate.
5. Graduate of an accredited physical therapy school.
6. Receipt of GRE scores taken within the last 5 years.
7. For candidates holding a bachelor's degree, with no advanced master's, receipt of PTET scores.
8. For candidates holding a master's degree, receipt of professional portfolio.

Degree Requirements

The following degree requirements apply to students graduating from the DScPT program.

1. For students with a **BS or Masters degree**: Satisfactory completion or competency in the following courses: PTH500, 507 or 545, 536, 537, 538, 546, 547, 548, 550, 590, 615, 630, 646, 718, 730, 740, 748, 760, 798, plus 10 approved elective credits. For students with a **DPT degree**: Satisfactory completion of the following courses: PTH536, 537, 538, 546, 547, 548, 549, 550, 760, 798, plus 5 approved elective credits.
2. Level III Manual Therapy Certification through NAIOMT or equivalent certification from another approved program.
3. Minimum of 2 years of part-time clinical practice (20 hours per week), or equivalent, in orthopedics, to be completed prior to the conferring of the degree.
4. No grade lower than "C" (2.00) in any course.
5. A minimum cumulative GPA of 3.00.
6. Successful completion of the capstone project.

Course

(Credits)

See inside front cover for symbol code.

Written permission from the Chair of the Physical Therapy program is required for non-physical therapy students to enroll in PTH/PHTH courses.

PHTH480

(0-5)

A course which provides hands-on, patient contact experiences in a variety of settings. The clinical experiences are coordinated to correspond to the requirements of the physical therapy program. As a facilitator, the clinical instructor will assist in developing the student's clinical thinking skills. The student is expected to become independent with the evaluation and treatment of non-complex patients within that practice setting. S/U course.

PHTH120

S (2)

An introduction to the profession of physical therapy with an overview of duties and responsibilities physical therapists perform. Partially fulfills the clinical observation prerequisites for admission to the professional program. Students must have their own transportation for the clinical observation.

PHTH360

S (1-4)

Selected topics in physical therapy. Permission of department chair required. Repeatable. Specific prerequisites may be required for some subject areas.

PHTH417

S (3)

Comprehensive study of human anatomy covering all systems of head, neck, trunk, and extremities. A solid morphological basis for a synthesis of anatomy, physiology, and clinical sciences provided. Dissection and identification of structures in the cadaver, and the study of charts, models, and prosected materials. Prerequisites: BIOL111, 112 or BIOL165, 166 or equivalent. See instructor for additional requirements. Corequisite: PTH427.

PHTH427

S \$ (1)

Study of the prosected extremity, head and neck anatomy, and dissection of the abdominal and thoracic organ systems. Prerequisites: same as for PTH417. Corequisite: PTH417.

PHTH590	S (1–4)	PTH425	(3)
Selected topics in physical therapy. Permission of department chair required. Repeatable. Specific prerequisites may be required for some subject areas.		Basic examination skills including surface palpation of specific 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. Clinical application in basic physical therapy care procedures will be introduced. Corequisite: PTH415.	
PHTH648	S (1–4)	PTH426	(2)
Individualized study and/or research in a specialized area under the guidance of an instructor. Permission from the department		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.	
PTH400	(4)	PTH428	(1)
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.		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.	
PTH410	(3)	PTH430	(2)
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.		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.	
PTH415	(3)	PTH440	(3)
Introduction to assessment principles and examination skills utilized in all areas of physical therapy. The <i>Guide to Physical Therapy Practice</i> is referenced for the basic skills required in the assessment, intervention and documentation guidelines. Corequisite: PTH425.		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.	
PTH416	(3)	PTH445	(2)
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.		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.	
PTH418	(2)	PTH450	(1)
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.		An introduction to the function and interaction of the primary areas of the nervous system involved in l/TT1 1 Tus system IT1 1 Tf9 0 0 9 537e1	
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.			

PTH457 (2)

Medical lectures covering selected topics in orthopedics, including common orthopedic diseases and the use of diagnostic testing and imaging in the orthopedic field.

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.

PTH495 (1–4)

Permission of department chair required prior to registration for all independent work. Repeatable to 8 credits.

PTH500 (2)

A degree orientation which will include portfolio development and assessment, development of the degree contract, usage of James White Library system, and introduction to the *Guide to Physical Therapy Practice*.

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.

PTH536 (3)

Appropriate skills in basic and objective selective tissue examination necessary for generating a provisional differential diagnosis of spinal dysfunction. Signs, symptoms, pathology, and management of common spinal pathologies are reviewed. Selective tissue tensioning techniques for the peripheral joints are introduced. Cyriax's principles are presented.

PTH537 (3)

PTH558	(3)	PTH615	(2)
Lecture/lab course focused on examination and treatment of the patient with cervical trauma following an MVA. Emphasis is placed on developing a safe, effective and progressive examination and treatment program based on anatomical, histological and biomechanical changes resulting from the MVA trauma.		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.	
PTH589	(1–2)	PTH618	(2)
PTH590	(1–12)	Understanding physical therapy management of athletes: topics unique to sports medicine include preparticipation screening exams, field management of athletic injuries, designing comprehensive rehabilitation and conditioning programs, taping techniques, equipment fitting, biomechanics of the upper extremity and lower extremity in sports, specifically related to evaluation and treatment of common athletic injuries.	
Selected topics in physical therapy. Permission of department chair required. Repeatable. Specific prerequisites may be required for some subject areas.		PTH620	(2)
(2)		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 <i>Physical Therapy Guide to Practice</i> are highlighted. Corequisite: PTH610.	
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.		PTH621	(2)
PTH601	(2)	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.	
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.		PTH622	(1)
PTH602	(2)	Fundamental procedures in collecting, summarizing, presenting, analyzing, and interpreting statistical data. Statistical tests applied to medical specialties. Corequisite: PTH632.	
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.		PTH625	(2)
PTH610	(2)	Lectures covering selected topics in cardiopulmonary medicine, focusing on clinical presentation, diagnostic tests, and medical and physical therapy interventions. Corequisite: PTH635.	
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.		PTH627	(1)
PTH611	(2)	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.	
Clinical application and practice in the special techniques to assess and treat acute and chronic orthopedic pathologies of the extremities and spine. Corequisite: PTH601.		PTH630	(2)
PTH612	(2)	Introduces the student to basic concepts of biostatistics and research design and the formulation of evidence based practice theories.	
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.		PTH632	(1)
		Practice in the computation of statistical data using appropriate formulas. Practical applications of techniques in research and sta-	

cardiac and pulmonary patients. Practice of relevant techniques, such as stress testing, percussion, pulmonary function tests and breathing techniques, as well as other techniques identified in the *Physical Therapy Guide to Practice*. Corequisite: PTH625.

PTH637 (1)

Practice of the physical therapy techniques required in the application of orthotic and prosthetic devices. Special attention given to gait and function. Selected topics such as wheelchair modifications, miscellaneous ortho-rehab apparatus, and other assistive/adaptive devices included. Corequisite: PTH627.

PTH640 (2)

An overview of embryologic development, followed by normal infant/child development to 5 years of age with an emphasis on motor development. Identification of assessment techniques for infants and children with normal and abnormal development. Description of various pediatric pathologies encountered in physical therapy with appropriate corresponding assessment and treatment approaches. Corequisite: PTH650.

PTH645 (4)

A study of the organizational structures, operations, and financing of healthcare delivery institutions and an examination of the organization and interrelationship of their professional and support elements. Application of current health care management strategies and theory are related to the acute-care facility and independent practice.

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 given spiritual

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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.

PTH721 (1)

A continuation of PTH711. Labs are designed to reinforce specific skills (evaluative or therapeutic) applicable to each lecture topic. Corequisite: PTH711.

PTH722 (1)

A continuation of PTH721 Clinical Reasoning I Laboratory. Prerequisite: PTH721. Corequisite: PTH712.

PTH726 (2)