

PHYSICAL THERAPY

Berrien Springs Campus

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MSPT/DPT Program

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Dayton Campus Faculty

DPT PROGRAM (Entry-Level)

Berrien Springs, MI

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 all prerequisite course requirements at Andrews University, earn a 3.0 minimum GPA and receive positive evaluations.

Preferred Admissions (Early Transfer Students)

Students who transfer into Andrews University to complete prerequisite courses 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:

- 1. Prerequisite Courses:** Complete 92 semester credits of appropriate course work. At least 15 upper division credits from 3 or more content areas are required, unless holding a bachelor's degree.

Biological Sciences—A full sequence of anatomy and physiology or general biology with labs **plus** an upper division human, animal, or exercise physiology course

Physical Sciences—*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;

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.

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

Computer Applications—A basic computer applications course

Math/Statistics—A basic statistics course

General Psychology—An introductory psychology course

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

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

- * **English**—A full sequence of English Composition which includes writing components

Communication—A course on human communication, one-to-one, small group, and public speaking

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

- * **Humanities**—One course from the following options: ethics, cultural perspectives, literature, philosophy, critical thinking, second language, world history, western civilization, U.S. history, American history, Canadian history

- * **Physical Education**—A physical fitness/wellness theory course

- * **Religion**—One religion course per year is required if attending a Seventh-day Adventist school

- * **Electives**—To fulfill the total 92 semester credits required, some suggestions include service related courses, business courses, cultural and diversity courses, arts and humanities, physical activities, nutrition.

- * Prerequisites with an asterisk are not required by applicants holding a baccalaureate degree from an accredited school.

- 2. GPA Requirements:** A minimum GPA of 3.00 in prerequisite science courses and a minimum overall GPA of 3.00 in all prerequisite courses. A grade of "C-" or better is required in each prerequisite course.

- 3. Clinical Observation:** Document 80 hours (including 20 hours in an inpatient setting) supervised by a licensed physical therapist. All hours must be completed within three years prior to enrollment.

- 4. Application Materials:** Applications are accepted when a minimum of 4 or more prerequisite science courses and a minimum of 64 semester credits have been completed.

- 5. Personal Interview:** Applicants who meet eligibility requirements are invited for a personal interview.

- 6. Graduate Record Exam (GRE):** Submit scores from the General Test taken less than five years prior to enrollment in the program.

- 7. English Proficiency:** See p. 42. In addition, applicants whose first language is not English must document successful completion of 20 semester credits of course work with instruction in the English language. An English translation of relevant course descriptions from college catalogs are required for all course work taken in another language.

PROFESSIONAL PROGRAM:

Bachelors of Health Science (Interim Degree)

Students successfully completing the appropriate prerequisites and the first year (36 credits) of the professional program qualify for the Bachelor of Health Science Degree.

First year program courses include PTH400, 410, 415, 425, 416, 426, 420, 430, 418, 428, 445, 455, 457, 440, 458, RELG360. Students must register for, and successfully completed all course work listed for each academic term. Students must also maintain a cumulative GPA of 2.50, be able to perform skills listed in the Technical Standards of Performance and demonstrate professional behaviors as outlined in the Physical Therapy Student Handbook.

Doctor of Physical Therapy (Entry-Level)

Upon successful completion of the professional phase of the program (116 credits) students earn the Doctor of Physical Therapy Degree. In addition to course work, students will complete a practical and written comprehensive exam, research project, research presentation, and five clinical internships. Six elective credits allow student to explore other areas of interest.

DPT DEGREE REQUIREMENTS

The following degree requirements apply to students graduating from the Entry-Level DPT program.

- Completion of a baccalaureate degree (BHS or other).
- Completion of the GRE General Test.
- An earned minimum grade of "C" (2.00) in each DPT program course. DPT program courses include PTH400, 410, 415, 425, 416, 426, 420, 430, 418, 428, 445, 455, 457, 440, 458, RELG360, 610, 620, 651, 661, 540, 680, 601, 611, 652, 662, 625, 635, 627, 637, 621, 622, 632, 881, 882, 640, 650, 602, 612, 647, 645, 646, 765, 768, 799, 883, 610, 620, 651, 661, 540, 680, 726, 728, 736, 799, 748, 884, 880, and six graduate elective credits

4. Maintain a cumulative DPT program GPA of 3.00 (2.50 for BHS).
5. Satisfactory performance of the skills listed in the Technical Standards of Performance
6. Demonstrated professional behavior
7. Satisfactory completion of the practical and written comprehensive exams
8. Satisfactory completion of a research project and research presentation
9. Satisfactory completion of five clinical internships and the associated "Clinical Performance Instrument"

MPT PROGRAM

Dayton, OH Campus

ADMISSION REQUIREMENTS

Admission to the MPT Program is selective. The following admissions requirements apply:

5. 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 post-professional DPT program.

analysis. Joint abnormalities will be identified using radiographs, related to the resultant movement dysfunction. Prerequisites: PTH400 and 410. Corequisite: PTH426.

PTH418

9 (2)

General Medicine

Clinical techniques applied to the examination, evaluation, treatment, and discharge planning of patients in general medical and

chronic conditions of the extremities. Screening of the cervical and lumbar spine prior to tests is covered, progressing to complete assessment of the spine. Diagnostic tests and results pertinent to the orthopedic patient are related to a physical therapy differential diagnosis. Corequisite: PTH611.

PTH602 (2)
Orthopedics II

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.

PTH610 (2)
Therapeutic Exercise

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.

PTH611 (2)
Orthopedics I Laboratory

Clinical application and practice in the special techniques to assess and treat acute and chronic orthopedic pathologies of the extremities and spine. Corequisite: PTH601.

PTH612 (2)
Orthopedics II Laboratory

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.

PTH620 (1)
Therapeutic Exercise Laboratory

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 *Physical Therapy Guide to Practice* are highlighted. Corequisite: PTH610.

PTH621 (1)
Research Design

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.

PTH622 (2)
Research Statistics

Fundamental procedures in collecting, summarizing, presenting, analyzing, and interpreting statistical data. Statistical tests applied to medical specialties. Corequisite: PTH632.

PTH625 (1)
Cardiopulmonary

Lectures covering selected topics in cardiopulmonary medicine, focusing on clinical presentation, diagnostic tests, and medical and physical therapy interventions. Corequisite: PTH635.

PTH627 (1)
Orthotics and Prosthetics

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.

PTH632 (1)
Research Statistics Laboratory

Practice in the computation of statistical data using appropriate formulas. Practical applications of techniques in research and statistical computations including probability, normal distribution, chi square, correlations, and linear regressions. Corequisite: PTH622.

PTH635 (1)
Cardiopulmonary Laboratory

Emphasis on physical therapy assessment and intervention with 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)
Orthotics and Prosthetics Laboratory

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)
Pediatrics

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)
Physical Therapy Administration and Leadership

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)
Spirituality in Healthcare

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.

PTH647 (2)
Differential Diagnosis

Analysis of the decision making process, with special focus on clinical guidelines,

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PTH650 (2)

Pediatrics Laboratory

Practice of physical therapy assessment of the infant/child that address different developmental domains. Practice in the special techniques required in assessment and treatment of pediatric patients diagnosed with selected pathologies. Introduces current treatment approaches, such as Neurodevelopmental Treatment (NDT), with their effects on treatment goals. Corequisite: PTH640.

PTH651 (2)

Neurology I

Review of basic neurophysiological mechanisms specific to nervous system dysfunction, related to clinical concepts in treatment of conditions affecting the nervous system, such as spinal cord injury, head injury, stroke, and selected peripheral pathologies. Emphasis on comparing and contrasting facilitation techniques. Corequisite: PTH661.

PTH652 (2)

Neurology II

Continuation of PTH651 Neurology I, focusing on assessment and intervention with selected neurologic conditions. Common treatment techniques are compared with rationale for use of each. Prerequisite: PTH651. Corequisite: PTH662.

PTH661 (2)

Neurology I Laboratory

Clinical application, rehabilitation practice, and techniques applied to nervous system dysfunction. Intervention techniques for conditions affecting the nervous system, such as spinal cord injury, head injury, stroke, and selected peripheral pathologies. Corequisite: PTH651.

PTH662 (2)

Neurology II Laboratory

Clinical application, rehabilitation practice, and techniques applied

- PTH739** (2) **PTH881, 882, 883, 884** (4, 4, 5, 5)
Advanced Concepts in Women's Health
 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.
- PTH745** (1)
Advanced Concepts in Industrial Medicine Laboratory
 Observation, demonstration, and practice in the assessment, intervention, and patient instruction procedures relating to occupational medicine. Corequisite: PTH735.
- PTH747** (1)
Advanced Concepts in Sports Medicine and Orthopedics Laboratory
 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.
- PTH748** (1-2)
Educational Techniques for Health Care Professionals
 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.
- PTH749** (1)
Advanced Concepts in Women's Health Laboratory
 Advanced practice and application of clinical skills required in the physical therapy assessment and intervention of women's health. Corequisite: PTH739.
- PTH765** (1-2)
Ethical & Legal Issues in Healthcare
 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.
- PTH768** (1)
Professional Compendium
 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.
- PTH788** (0)
Research Project Continuation
 Non-package, reduced tuition rate applies.
- PTH799** (1-3)
Research Project (topic)
 Provides students with guidelines and supervision for data collection, analysis, thesis preparation and oral presentation.
- PTH880** (1)
PT Seminar
 Preparation of a personal portfolio, assessment of the clinical experiences and preparation for professional licensure.

PHTH536

(2)

Psychology of the Physically Impaired

Psychological responses to illness and disability. Interpersonal

Additional topics are: Personnel supervision, scheduling, cost of serv-

PHTH665 (1.5)
Clinical Pathology: Orthopedics II
Small group, problem-based learning course utilizing patient case scenarios dealing with differential diagnosis and management of complex orthopedic pathologies. Corequisites: PHTH675 and 685.

PHTH671 (1.5)
Clinical Skills Laboratory: General Medicine
Lab course designed to develop clinical skill and reasoning as it relates to physical therapy care and management of the patient with acute medical and postoperative pathology. Students learn physical examination tests and measures along with therapeutic interventions including electrotherapy modalities appropriate for this population. Corequisites: PHTH661 and 681.

PHTH672 (2)
Clinical Skills Laboratory: Neurology I
PHTH675 and 685.

PHTH671 (1.5)

PHTH693 (1)
Research III
 Research proposal review, revision, and presentation. Students work with the research coordinator and individual faculty research advisors in preparation for completion of the research proposal document.

AMPT PROGRAM

PHTH507 (3)
Functional Anatomy/Neuroanatomy
 A review of cadaver anatomy with corresponding lectures on the main functional muscle groups of the extremities and back. The spine, upper and lower extremity joints and soft tissues are covered. In addition, neuroanatomy relevant to physical therapy and sports medicine are discussed.

PHTH529 (3)
Education Methods and Materials
 Examines and applies education theory to skills used by the healthcare provider in the classroom, community, and clinical facility. Topics include the educational role of the healthcare provider, the learning process, the taxonomies of learning, learning styles, modality strengths, multiple intelligences, literacy levels, instructional technology, and teaching strategies.

PHTH531 (2.5)
NAIOMT Level I: Introduction to Fundamentals of Orthopedic Manual Therapy and Differential Diagnosis
 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.

PHTH532 (2.5)
NAIOMT Level II: Intermediate Upper Quadrant
 A comprehensive biomechanical and anatomical review of the upper thoracic, upper and lower cervical spine, shoulder, elbow, wrist, and hand. Specific biomechanical assessment of each area is taught along with appropriate and effective treatment techniques for common injuries and mechanical dysfunctions.

PHTH533 (2.5)
NAIOMT Level II: Intermediate Lower Quadrant
 A comprehensive biomechanical and anatomical review of the lower thoracic and lumbar spines, the hip, knee, ankle, and foot. Specific biomechanical assessment of each area is taught along with appropriate and effective treatment techniques for common injuries and mechanical dysfunctions.

PHTH539 (2.5)
Clinical Research
 Presents basic research concepts in a format appropriate to both consumers of research literature and students planning to initiate research projects. Statistics are covered in a conceptual manner. Student activities include a literature review, critiquing research articles, and developing a research proposal ready for submission to the Human Subjects Review Board.

PHTH541 (2.5)
NAIOMT Level III: Advanced Upper Quadrant
 Builds on the techniques learned in Level II and helps the student understand the kinetic chain interrelationships of the upper quadrant. Integrates information generated in the assessment to under-

stand how remote dysfunctions can be causal or contributory. Advanced techniques are demonstrated along with new material on temporo-mandibular-joint material and peripheral manipulation skills. Prerequisite: PHTH532.

PHTH542 (2.5)
NAIOMT Level III: Advanced Lower Quadrant
 Builds on the techniques learned in Level II and helps the student understand the kinetic chain interrelationships in the lower quadrant. Presents advanced biomechanical tests and treatment and includes the sacroiliac and pelvic joints. Discusses the integration of examination and treatment techniques. Prerequisite: PHTH533.

PHTH543 (2.5)
NAIOMT Level IV: High Velocity Manipulation
 Instructs the student on the indications and contraindications, as well as the safe and effective application of spinal, pelvic, and costal manipulation techniques. Prerequisites: PHTH542 and 543.

PHTH549 (2.5)
Principles of Contemporary Leadership
 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.

PHTH550 (2.5)
Clinical Application of Biomechanics
 An advanced course, including practice and application, to enhance the understanding of the role of biomechanics in orthopedic injury causation and rehabilitation. Focuses on how anatomic structures react in an isolated and integrated fashion when placed under the influence of forces in both a static and dynamic environment.

PHTH561 (1.5)
Myofascial Manipulation: Level I
 Introduces osteopathic concepts/terminology, myofascial anatomy, theories regarding the neurophysiology and biomechanics of release techniques, the difference between direct and indirect techniques, with focus on direct shearing and deep direct techniques. Skills include total body gait analysis, palpation for myofascial binds/restrictions, and osteopathic shearing and rolling structural integration techniques.

PHTH562 (1.5)
Myofascial Manipulation: Level II
 Builds on Level I, progressing into higher level myofascial loading to treat joint dysfunctions; introduction to craniosacral therapy concepts of transverse diaphragms and dural tube treatment, localized joint unwinding, and how to initiate the release response with both tri-planar loading or unloading. Total body dynamic assessment is reinforced. Prerequisite: PHTH561.

PHTH571 (1.5)
Soft Tissue Management: Level I
 Introduces the theory and clinical application of indirect techniques, with emphasis on practical use of strain-counterstrain (SCS) in combination with neuromotor re-education techniques. SCS includes spinal, rib, pelvic, shoulder, and knee points, and home program material for patients. Neuromotor re-education concepts and options will be experienced for each region.

PHTH572 (1.5)

Soft Tissue Management: Level II

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 re-education exercises and options, and identifying and correcting vector(s) of traumatic injury. Prerequisite: PHTH571.

PHTH577 (2)

Sports Physical Therapy

Understanding physical therapy management of athletes. Topics unique to sports medicine include: pre-preparation 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.

PHTH578 (2)

Industrial Physical Therapy

Investigates orthopedic and sports physical therapy principles applied to the industrial setting. Includes applied ergonomics, work conditioning and hardening, pre-employment screening, industrial injury prevention, objective functional capacity testing, inappropriate illness behavior, the industrial medico legal system, industrial spinal patient rehabilitation, and a practical ergonomic/lifting lab session. Develops clinical competence in evaluation techniques and intervention procedures.

PHTH580 (2)

Professional Ethics

Basic ethical theory and methods and their place in the study of human behavior. Medical professional context and challenges of ethical behavior are examined including the relationships between peers, superiors, subordinates, and patients. Contemporary medical ethical issues are discussed and illustrated with actual cases and related to Christian biblical presuppositions.

PHTH648 (1-4)

Workshop

TRANSITIONAL DPT PRORAM

PTH460 (2)

Topics in Comparative Religion

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)

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PTH748

(1-2)

Educational Techniques for Health Care Professionals

Examines and applies educational theory to skills utilized by the

