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# GRADUATE CENTER

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# Addendum to the 2002-03 Graduate Catalog

**Physical Therapy** 

Azusa Pacific University

# Department of Physical Therapy

Department Chair: Michael Laymon, DPTSc mlaymon@apu.edu

# Doctor of Physical Therapy

The Doctor of Physical Therapy Program is a 33-month (including summers), entry-level professional program emphasizing the scientific basis of human structure and human movement; the spiritual basis of human worth; and the integration of these foundational elements into a comprehensive and problem-solving, evidence- and consensus-based approach to artful evaluation and skillful treatment. Graduates have a solid generalist perspective of patient care in a variety of professional treatment settings with a strong foundation for post-professional specialization and lifelong learning.

The transitional or "bridge" DPT allows licensed physical therapists with a CAPTE-accredited master's degree in physical therapy to earn the DPT in 24-40 units, depending on their educational and clinical background.

# **Admission Requirements**

University graduate and program admission requirements must be met before an application is complete. (See "Graduate Admission to the University.")

- The applicant must have an officially posted bachelor's degree from a regionally accredited college or university by the time he/she matriculates to APU.
- 2. Prerequisite courses must be similar in value to courses offered by an accredited four-year college or university. Grades of C or better are required. Science courses must have laboratories. No prerequisite work may be taken on a pass/no pass basis.

# **Prerequisite Courses**

The following prerequisites must be completed by the end of the fall term before entry:

BIOLOGY: four courses

Human Anatomy with lab (required)

Cell Biology (required)

— or —

General Biology with lab

Genetics (recommended)

Neurobiology (recommended)

Human Physiology with lab (required)

CHEMISTRY: One year with lab

General Chemistry

Organic Chemistry

PHYSICS: One year with lab (must include electro, hydro, and magnetic physics)

STATISTICS: One course

PSYCHOLOGY: Two courses

General Psychology (required) Any other Psychology course

**HUMANITIES AND ARTS: Three courses** 

English Composition (required)

English Literature

History/Political Science/Sociology

Music/Art Appreciation

Philosophy/Ethics (recommended)

Speech/Communication (recommended)

# ADDITIONAL COURSES

(recommended but not required):

Athletic Training

Exercise Science

Exercise Physiology

Kinesiology/Biomechanics

Nutrition

Writing Course

To uphold the excellence of APU's academic offerings, programs undergo periodic review. Please contact the individual program director for updated information.

# Other Admission Criteria

- To ensure consideration for the February start date, completed applications should be received by November 15. An online application is available at the APU website, www.apu.edu.
- International students have a separate application procedure. Please contact the Office of International Student Services at (626) 812–3055 or email iss@apu.edu.
- A \$45 nonrefundable application fee (\$65 for international students)
- Official transcripts from all institutions leading to and awarding the applicant's baccalaureate degree and all postbaccalaureate study (To be considered official, a transcript must come directly from the Office of the Registrar of the school attended to the Graduate Center: Admissions at Azusa Pacific University. Students' sealed copies will not be considered official.)
- Bachelor's degree from a regionally accredited institution
- A cumulative GPA of 3.0 (Candidates with a GPA of 2.5-2.99 may be considered for provisional admission.)
- Three recommendation forms from persons well-suited to evaluate qualifications for graduate study and/or physical therapy: one must be from a registered/ licensed physical therapist and two from faculty members familiar with academic work in areas closely related to the proposed field of study or responsible persons well-informed about relevant work completed by the student
- Letter to the dean describing educational goals as well as short- and long-term professional goals, including reasons for wishing to enter study in physical therapy at APU

- 100 hours of clinical experience in physical therapy setting
- Minimum cumulative GRE score of 1,250 taken within the last five years
- · Computer literacy

Students admitted into the program will be required to provide a nonrefundable \$500 deposit within 10 days of receipt of their acceptance letter. This will be applied to the first term's tuition fee.

# All materials should be submitted to:

Graduate Center: Admissions Azusa Pacific University 901 E. Alosta Ave. PO Box 7000 Azusa, CA 91702-7000

Located at:
Azusa Pacific University
568 E. Foothill Blvd.
Azusa, CA 91702-7000
(626) 815-4570
Fax (626) 815-4545
graduatecenter@apu.edu
www.apu.edu

# International applicants send forms to:

Office of International Student Services Azusa Pacific University 901 E. Alosta Ave. PO Box 7000 Azusa, CA 91702-7000 USA (626) 812-3055 Fax (626) 815-3801 iss@apu.edu

In addition to meeting the admission requirements, those students whose first language is not English must meet the required English proficiency standard as demonstrated in passing the international TOEFL with a minimum score of 550/250.

All international students must complete international student applications which must be approved through APU's Office of International Student Services.

# **Course Requirements**

Graduation requirements include maintaining a minimum cumulative 3.0 grade-point average (GPA).

Year I	62 units	
Term I (S	pring I – 9 weeks)	
PT 501	Research I	1
PT 502	Professional Relationships	2
PT 506	Seminar I	2
PT 520	Functional Anatomy I	5
PT 529	PT Clinical Skills 1A	3
Term II (S	Spring II – 9 weeks)	
PT 521	Human Physiology	3
PT 522	Functional Anatomy II	5
PT 530	PT Clinical Skills IB	3
PT 535	PT Clinical Skills II	3
Term III	(Summer – 6 weeks)	
PT 524	Pathology I	3
PT 549	Practicum	2
PT 558	Research II	2
PT 536	PT Clinical Skills III	1
Term IV	(Fall I – 9 weeks)	
PT 525	Pathology II	3
PT 531	PT Clinical Skills IV	4
PT 541	Exercise Physiology	3
PT 550	Neuroscience I	3
Term V (I	Fall II – 9 weeks)	
PT 532	PTDDT I	4
PT 534	PT Clinical Skills V	4
PT 551	Neuroscience II	3
PT 557	PTDDT II	3

Year II	54 u	nits			
<b>Term VI</b> (Spring I – 9 Weeks)					
PT 527	Pharmacology	3			
PT 533	PTDDT III	4			
PT 542	PTDDTV	4			
Term VII	<b>Term VII</b> (Spring II – 9 Weeks)				
PT 538	PTDDT IV	3			
PT 552	Prosthetics and Orthotics	2			
PT 553	Pediatrics	4			
PT 554	Special Populations	3			
Term VIII	(Summer – 8 weeks)				
PT 540	Wellness and Nutrition	3			
PT 545	PTDDTVI	2			
PT 555	Seminar II	2			
PT 568	Research III	1			
<b>Term IX</b> (Fall I – 6 weeks)					
PT 560	Internship A	6			
Term IX (	Fall I – 6 weeks)				
PT 561	Internship B	6			
	•				
	Fall II – 6 weeks)				
PT 562	Internship C	6			
	Fall II – 6 weeks)				
	Bioethics	2			
PT 556	PTDDT VII	3			
Year III	34 u	nits			
Term XI (	Spring I – 6 weeks)				
PT 563	Internship D	6			
	(Spring II – 5 weeks)				
	Administration	3			
PT 570	Research IV	1			
<b>Term XIII</b> (Summer – 9 weeks)					
PT 710A	Physical Diagnosis	3			
PT 720	Practical Pharmacology	3			
PT 730	Diagnostic Imaging	3			
<b>Term XIV</b> (Fall – 12 weeks)					
PT 710B	Physical Diagnosis	3			
PT 770	12-week Residency	12			

150 units

**Total** 

# The Transitional Doctor of Physical Therapy Program

The Transitional Doctor of Physical Therapy Program is a post-professional physical therapist education program that:

- allows the U.S. licensed physical therapist to obtain the clinical doctorate by demonstrating knowledge commensurate with that of current professional (entrylevel) Doctor of Physical Therapy (DPT) program outcomes
- takes into account the learner's knowledge and experience

The DPT is conferred upon completion of a structured post-professional educational experience that results in the augmentation of knowledge, skills, and behaviors at a level consistent with the current professional (entry level) DPT standards. The DPT earned through the transitional program is:

- an applied/clinical degree
- a post-professional, "bridge" degree
- analogous to current professional (entry-level) clinical doctorate standards
- does not signify acquisition of advanced clinical skills
- a degree rather than a clinical designator

The purpose of the Transitional Doctor of Physical Therapy Program is to supply didactic augmentation based on new and expanding knowledge, skills, and behaviors in physical therapy which have changed throughout the past 5-10 years to current licensed practitioners. The program's primary objective is to ensure that graduates of the program possess the consensus-based competencies congruent with the *Guide to Physical Therapist Practice*, 2<sup>nd</sup> Ed., and the Normative Model of Physical Therapy Education, V2K.

The program is divided into two separate educational tracks: one for graduates of the Master of Physical Therapy (MPT) at APU, and one for graduates of other master's degree entry-level programs approved by the Commission on Accreditation of Physical Therapist Education (CAPTE).

# Requirements for APU MPT Graduates

PT 710	A and B Physical Diagnosis	6
PT 720	Practical Pharmacology	3
PT 730	Diagnostic Imaging	3
PT 770	12-Week Residency	12

24 units

# Requirements for Non-APU Graduates

Total

Total	32-40 ur	nits
PT 780	Clinical Research	3-6
PT 770	12-Week Residency	12
	Policy 2	
PT 750	Management and Health	
PT 740	Current Practice Patterns	2-8
PT 730	Diagnostic Imaging	3
PT 720	Practical Pharmacology	3
PT 710	A and B Physical Diagnosis	6

# **Course Descriptions**

# PT 501 Research I (1)

(15 contact hours)

The first of four research courses, this course introduces the student to the concepts of physical therapy research. A survey of the major physical therapy research methods is conducted. The course prepares the student to critically review and utilize professional literature.

# PT 502 Professional Relationships (2)

(30 contact hours)

This course introduces the role of the physical therapist as a professional health educator. Emphasis is placed on the relationships between patient and therapist, therapist and other health care professionals, and group interactions. Interviewing skills are discussed.

# PT 503 Bioethics (2)

(30 contact hours)

The course examines the major ethical issues affecting the physical therapist and the health care profession. Through class and small-group discussions, the student examines his/her own moral values.

# PT 506 Seminar I (2)

(30 contact hours)

This course introduces the student to the physical therapy profession. Historical and legal issues, as well as practice settings, and health care trends are addressed. Emphasis is placed on professional development and responsibility of the physical therapist as a lifelong learner.

# PT 520 Functional Anatomy I (5)

(150 contact hours)

This is the first of a two-semester intensive course in clinically oriented human anatomy from a regional approach. Microscopic and gross human anatomy are studied utilizing lectures, classroom demonstrations, human cadaver dissections, dissection videos, computer anatomic modeling software, radiographs, magnetic resonance imagining, tomography, radionucleotide bone scans, and hands-on functional demonstrations. Kinesiology will be studied from a functional and clinical approach. Emphasis is on the head, neck, upper extremity, thorax, and brain and spinal cord structures.

# PT 521 Human Physiology (3)

This course examines normal human physiological function. The first half of this course provides an introduction to applied physiological concepts in electrophysiology, cell, cardiac, and neuromuscular

functions across the life span. The second half of the course introduces concepts in respiration, acidbase balance, metabolism, kidney function, and blood circulation across the lifespan.

# PT 522 Functional Anatomy II (5)

(150 contact hours)

This is the second of a two-semester intensive course in clinically oriented human anatomy from a regional approach. Microscopic and gross human anatomy is studied utilizing lectures, classroom demonstrations, human cadaver dissections, dissection videos, computer anatomic modeling software, radiographs, magnetic resonance imagining, tomography, radionucleotide bone scans, and hands-on functional demonstrations. Kinesiology is studied from a functional and clinical approach. Emphasis is on the pelvis, hip, knee, ankle, and foot.

# PT 524 Pathology I (3)

(45 contact hours)

This is the first of two courses which examine human pathology. Specific areas of study include an introduction to the general response to injury, pain mechanisms, musculoskeletal pathology, and neurological pathology.

# PT 525 Pathology II (3)

(45 contact hours)

This is the second of two courses which examine human pathology. Specific areas for this course include circulatory, pulmonary, integumentary, endocrine, urinary, and immune systems.

# PT 527 Pharmacology (3)

(45 contact hours)

This course is an introduction to pharmacology. Emphasis is on drugs commonly encountered during rehabilitation. Side effects that alter physical performance and drug effects influenced by exercise are studied.

# PT 529 PT Clinical Skills IA (3)

(75 contact hours)

This is the first in a series of five courses designed to examine basic evaluation and clinical skill of the physical therapist. This clinical skills course focuses on objective techniques of the upper extremity and axial skeleton for range of motion (ROM), muscle testing (MMT), general neurological screening, draping, and palpation. Postural evaluation and correction are addressed. Biomechanics are studied from a functional and clinical approach. Basic documentation is discussed and applied. Information is reiterated with laboratory activities, homework, and practical examination using a problem-solving approach. Principles of therapeutic exercise and body mechanics are introduced. Concurrent with PT 520

#### PT 530 PT Clinical Skills IB (3)

(75 contact hours)

A continuation of PT Clinical Skills 1A, this clinical skills course focuses on objective techniques of the lower extremity and axial skeleton for range of motion (ROM), muscle testing (MMT), general neurological screening, draping, and palpation. Gross muscle test for the whole body is completed. Biomechanics of normal gait are studied from a functional and clinical approach. Bed mobility and transfer training are introduced. Incorporation of evaluation skills continues including documentation. Measurement, selection, and adaptation of assistive devices are performed. Information is reiterated with laboratory activities, homework, and practical examination using a problem-solving approach. Concurrent with PT 522

# PT 531 PT Clinical Skills IV (4)

(90 contact hours)

The fourth in a series of clinical skills courses, this course continues to develop skills in the areas of the subjective and objective evaluation relative to orthopedic-specific pathology, histology, and inflammatory responses. The Australian approach to the subjective portion of the evaluation is discussed. The objective portion continues by incorporating palpation, postural findings, range of motion, and muscle testing developed in PT Clinical Skills IA and IB with special tests and joint play. Joint and soft tissue mobilization are introduced. General types of therapeutic exercise are demonstrated.

# PT 532 PTDDT I (4)

(Orthopedics I - 90 contact hours)

This course addresses differential diagnoses and treatment of orthopedic patients. Examination of the lumbar spine, pelvis, hip, knee, and ankle/foot are emphasized. Mobilization, therapeutic exercise programs, complete evaluation, disease processes, and documentation are addressed specifically per diagnosis.

# PT 533 PTDDT III (4)

(Orthopedics II – 90 contact hours)

This course further addresses differential diagnoses and treatment of orthopedic patients. Examination of the cervical spine, temporomandibular joint (TMJ), thoracic spine, shoulder, elbow, and wrist/ hand are emphasized. Mobilization, therapeutic exercise programs, complete evaluation, disease processes, and documentation are addressed specifically per diagnosis.

# PT 534 PT Clinical Skills V (4)

(90 contact hours)

The last in the clinical skills series, this course examines the neurophysiologic rationale for treatment approaches commonly used in physical therapy treatment for the neurologically impaired patient. Emphasis is placed on integration and development of hands-on skills in a laboratory setting.

# PT 535 PT Clinical Skills II (3)

(60 contact hours)

This is the second in a series of clinical skills courses and one of two courses that discusses the visual and electromagnetic spectrum instrumentation for the treatment of dysfunction. The focus is on physical agents in relation to treatment. The course material is presented in a didactic and problem-solving manner, supplemented with virtual reality computer simulation and laboratory experience.

# PT 536 PT Clinical Skills III (1)

(45 contact hours)

The third in the series of clinical skills courses, this course discusses the visual and electromagnetic spectrum instrumentation for the treatment of dysfunction. The focus is on electrotherapeutics agents in relation to treatment. The course material is presented in a didactic and problem-solving manner, supplemented with virtual reality computer simulation and laboratory experience.

# PT 538 PTDDT IV (3)

(General Medicine – 75 contact hours)
This course provides the student with experience in the management of the general medicine patient with acute, chronic, and terminal disease. The laboratory portion of the course assists in developing clinical skills and reasoning to determine appropriate and safe therapeutic procedures and protocols for this population.

# PT 540 Wellness and Nutrition (3)

(45 contact hours)

This course presents promotion of optimal health and disease prevention by incorporating the concepts of wellness and nutrition with education and prevention programs for individuals, groups, and communities. Trends such as eating disorders and alternative medicine in relation to wellness and nutrition are addressed.

# PT 541 Exercise Physiology (3)

(75 contact hours)

This course relates bioenergetics, neuromuscular concepts, hormonal responses, performance aids, and environmental and age influences to physical performance.

#### PT 542 PTDDT V (4)

(Neuro Rehabilitation – 90 contact hours)
This course focuses on developing the skills used for functional evaluation, diagnosis, and treatment management of the neurologically impaired adult. Major areas investigated include spinal cord injury, stroke, and traumatic brain injury.

# PT 545 PTDDT VI (2)

(Multiple System Dysfunction -30 contact hours) Group and individual problem solving occurs using case studies involving complex, multiple systems dysfunction. This course prepares the student to manage patients with dysfunctions in two or more preferred practice patterns of musculoskeletal, neuromuscular, cardiopulmonary, and integumentary across the lifespan.

# PT 549 Practicum (2)

(80 contact hours)

This two-week, full-time clinical exposure allows students to observe and practice basic evaluation techniques under the direction and supervision of a licensed physical therapist. Emphasis is placed on the student's ability to communicate, develop professional behaviors, and practice basic evaluation skills from PT 529, PT 530, and PT 531.

# PT 550 Neuroscience I (3)

(60 contact hours)

This is the first of two courses of in-depth anatomical and physiological study of the nervous system and neuromuscular function which serves as a foundation for PT 534 and PT 542. The peripheral nervous system is emphasized. Case studies are incorporated.

# PT 551 Neuroscience II (3)

(60 contact hours)

A continuation of Neuroscience I, this course covers the anatomy and physiology of higher levels of the central nervous system. Further study of lesions and correlation with neurologic symptoms and neurologic diagnostic tests is included. Students assess several case studies.

# PT 552 Prosthetics and Orthotics (2)

(60 contact hours)

This course provides foundational knowledge of the types, uses, and fitting of prosthetic and orthotic devices. Rehabilitation intervention is addressed in regard to functional use, measurements, care, adjustments, precautions, and patient education for the appropriate device. Case studies, literature review, lecture, problem-solving models, videos, and laboratory practice are used.

#### PT 553 Pediatrics (4)

(90 contact hours)

This course provides the background knowledge needed to assess functional status, evaluate, and develop appropriate treatment programs for infants and children from premature birth to adolescence. Lab sessions held at a developmental center allow students to evaluate, develop a plan of care, and manage children under faculty supervision.

# PT 554 Special Populations (3)

(45 contact hours)

This course addresses physical therapy management of special populations such as geriatrics, women's health, industrial medicine, athletes, and other special interest groups for physical therapy care. The student is responsible for designing physical therapy management for each area considered.

# PT 555 Seminar II (2)

(30 contact hours)

The clinical performance instrument (Blue MACS) is reviewed. Each student is responsible to revise evaluations given a specific diagnosis. Written and oral communication skills are refined. Expectations of clinical behavior are discussed.

# PT 556 PTDDT VII (3)

(Clinical Case Studies – 45 contact hours)
Students present one case study from their clinical rotations and justify physical therapy diagnosis and course of treatment. The student also instructs an inservice on a specific evaluation or treatment approach learned in the clinic, incorporating lecture and lab into instruction. The students analyze their performance and are evaluated by their instructor and peers.

# PT 557 PTDDT II (3)

(Cardiopulmonary – 75 contact hours)

This course presents basic theories leading to decision-making skills in cardiopulmonary rehabilitation. Presentation of case studies reinforce management of the cardiopulmonary patient.

Practical application of theoretical concepts is emphasized.

# PT 558 Research II (2)

(30 contact hours)

The second in the research series, this course examines statistical methods used in physical therapy research. Development of an individual research proposal is completed and submitted to the research advisor, research committee, and IRB.

#### PT 559 Administration (3)

(75 contact hours)

This course presents the basic components of administration, financial and staff management, marketing strategies, and public relations for clinical directors and/or owners. Administrative and contractual legal issues and reimbursement mechanisms are explored.

# PT 560 Internship A (6)

(240 contact hours)

This is the first of four six-week clinical rotations providing integration of prior didactic work with full-time clinical exposure under the supervision of a licensed physical therapist. Emphasis for this first session is on the student's abilities to practice in a safe and professional manner, communication, basic evaluation skills, and assuming clinical responsibilities.

# PT 561 Internship B (6)

(240 contact hours)

This is the second of four six-week clinical rotations providing integration of prior didactic work with full-time clinical exposure under the supervision of a licensed physical therapist. Emphasis for this second session is on time management, physical evaluation skills, goal setting, and basic physical therapy treatment skills.

# PT 562 Internship C (6)

(240 contact hours)

This is the third of four six-week clinical rotations providing integration of prior didactic work with full-time clinical exposure under the supervision of a licensed physical therapist. Emphasis for this third session is on the student's abilities to develop and implement complete treatment plans.

# PT 563 Internship D (6)

(240 contact hours)

This is the final of four six-week clinical rotations providing integration of prior didactic work with full-time clinical exposure under the supervision of a licensed physical therapist. Emphasis is on the student's abilities to perform as a physical therapist at entry level.

# PT 568 Research III (1)

This course is comprised of guided research conducted by the student.

# PT 570 Research IV (1)

This course is the culmination of the research series in which the research conducted by the student is presented.

# PT 710 A Physical Diagnosis (3)

This is the first in a series of two courses which prepares the student to utilize various methods of physical examination to identify pathologies which are and are not amenable to physical therapy intervention. The student gains experience with advanced EKG interpretation, heart and lung sounds, otoscopic and ophthalmic examination, hematological and serum chemistry analysis, abdominal palpation skills, and dermatological examination.

# PT 710 B Physical Diagnosis (3)

This course is the second of the physical examination courses which prepares the student to utilize various methods of physical examination to identify pathologies which are and are not amenable to physical therapy intervention. The student gains experience with advanced EKG interpretation, heart and lung sounds, otoscopic and ophthalmic examination, hematological and serum chemistry analysis, abdominal palpation skills, and dermatological examination.

# PT 720 Practical Pharmacology (3)

This course is the second in a series of pharmacology courses studying drug classification, pharmacokinetics, pharmacodynamics, absorption, distribution, mechanism of action, metabolism, elimination, and indications for use of therapeutic agents are considered. Prescription, over-thecounter, and common herbal supplements will be studied. Drug action, therapeutic dosage schedules, drug interactions, and common side effects are brought into clinical perspective of patient management. Recognition of expected drug effects and signs of abuse or non-compliance are explored. Emphasis is placed the therapist's proper incorporation of pharmacotherapeutic knowledge into patient assessment, differential diagnosis, and design of treatment regimens. Prerequisite: PT 527 or admission into the T-DPT program.

# PT 730 Diagnostic Imaging (3)

This course familiarizes the Doctor of Physical Therapy student with the indications, instrumentation, and clinical interpretation of orthopedic imaging techniques including plane film X-ray, magnetic resonance, computerized tomography and radioisotope imaging. Selection protocols for each are discussed to acquaint the student with advantages and disadvantages of each method and what type of information each technique

best presents. This course focuses on the clinical interpretation and practical integration of imaging data into rehabilitation treatment regimen design and communication with other medical professionals

# PT 740 Current Practice Patterns (2-8)

This course is divided into four separate sections based on the four areas of current physical therapy practice: musculoskeletal, neuromuscular, cardiopulmonary, and integumentary. Each section (two units each) seeks to relate current knowledge, evaluation and treatment techniques, and outcome measures to patients with pathology in its domain.

#### PT 750 Management and Health Policy (2)

This course introduces the student to the current local, state, and federal regulations regarding the functions of autonomous practitioners. Clinical ethics issues influencing healthcare policy, and adaptations of a doctoring profession to changes in the healthcare environment are explored.

# PT 770 Residency (12)

This is twelve-week culminating, mentoring, clinical experience designed specifically to provide the student experience in functioning as an autonomous practitioner in a doctoring professional atmosphere. Full-time clinical exposure is provided under the supervision of a licensed physical therapist within a specialty practice setting.

# PT 780 Clinical Research (3-6)

This course begins by introducing the student to the concepts of physical therapy research. A survey of the major physical therapy research methods is conducted. The student critically reviews and utilizes professional literature, as well as examines statistical methods used in physical therapy research. Development of an individual research proposal is completed and submitted to the research advisor, research committee, and IRB. Research is then conducted by the student under the supervision of a research advisor and the research committee in the DPT program. The completed research/capstone projects presented both in written and oral formats. Faculty determine, prior to start of the course, the number of units required of each student based on research experience both from their master's and clinical backgrounds.