

Physical Therapy

Physical Therapy

Physical therapists, or PTs, are health care professionals who evaluate and treat people with health problems resulting from injury, disease, or biomechanical dysfunction. Physical therapists are integral members of the primary care team and are involved in prevention of disability and promotion of positive health. They are also acting consultants in restorative care.

Physical therapy includes the following:

1. Examining and evaluating patients with health-related conditions, impairments, functional limitations, and disability in order to determine diagnosis, prognosis, and intervention;
2. Alleviating impairments and functional limitations by designing, implementing, and modifying therapeutic interventions;
3. Preventing injury, impairments, functional limitations, and disability while promoting and maintaining fitness, health, and quality of life in all age populations; and
4. Engaging in consultation, education, and research.

Career Opportunities

Physical therapists practice in acute care or subacute care hospitals, private physical therapy offices, community health centers, industrial health centers, sports facilities, rehabilitation centers, nursing homes, home health agencies, schools, or pediatric centers. Others work in research institutions or teach in colleges and universities.

Faculty and Facilities

The faculty is composed of physical therapists that collectively have advanced preparation in all major areas of physical therapy. Most have earned doctorates or advanced specialty certification. Together they represent extensive years of clinical experience. Many faculty members continue to engage in practice in tandem with their faculty responsibilities. Several have held significant positions of leadership in professional associations and have authored textbooks used nationally; several also publish regularly in professional journals. Their efforts have been recognized frequently with prestigious awards from the profession and the community.

Clinical laboratory experiences are conducted in a variety of health care facilities throughout the state of California and out of state on a limited basis.



Faculty

Peggy R. Trueblood, *Chair*
Annie Burke-Doe
Joanne M. Laslovich
Gary L. Lentell
Robert K. Martin
Marilyn Miller
Toni Tynner

Physical Therapy Education

The Department of Physical Therapy offers an undergraduate pre-physical therapy option and a Master of Physical Therapy program which meet pre-professional and professional education requirements to become a licensed physical therapist in all 50 states.

Interdisciplinary Pre-Health and Rehabilitation Professions Education

The B.S. in Interdisciplinary Health and Rehabilitation Sciences offers preprofessional options in Pre-Physical Therapy, Pre-Occupational Therapy, Pre-Public Health, and Pre-Rehabilitation Services. These degree options prepare students to meet the prerequisite requirements of graduate programs in Physical Therapy, Occupational Therapy, Public Health, and Rehabilitation Counseling.

In addition to the major, a minor in Interdisciplinary Health and Rehabilitation Sciences is recommended for students pursuing career paths in other health and human service professions, such as nursing, communicative disorders, health science, dietetics, dentistry, chiropractic, medicine, optometry, clinical psychology and counseling.

College of Health
and Human Services

Department of Physical Therapy

Peggy R. Trueblood, *Chair*
Ora Murray, *Administrative Support
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McLane Hall, Room 186A

559.278.2625

www.csufresno.edu/physicaltherapy

B.S., Interdisciplinary Health and Rehabilitation Sciences

Options:

- Pre-Occupational Therapy
- Pre-Physical Therapy
- Pre-Public Health
- Pre-Rehabilitation Services

M.P.T., Master of Physical Therapy

Minor in Interdisciplinary Health and Rehabilitation Sciences

B.S. in Interdisciplinary Health and Rehabilitation Sciences

The major is designed to prepare undergraduate university students with prerequisite coursework, knowledge, attitudes and skills that will help them to gain admission to and succeed in graduate programs in the rehabilitation and health professions.

Rehabilitation professionals provide specialized services that enhance the function, self-care, mobility, vocational potential, communication or adaptive skills of persons with disabilities. Their services may result in an individual post head injury being able to live independently in the community, an elderly person following hip fracture being able to ascend a flight of stairs, or an individual with a visual impairment being able to walk to a bus stop independently to go to work. Rehabilitation professionals may fabricate equipment to enable a person with an amputation to walk or a person with quadriplegia to control his or her environment in the absence of movement. Professional education for rehabilitation professions requires graduate education.

Physical Therapy

The needs of the health care market are changing. These changes require that entering health professionals be not only aware of practice strategies to maximize resources and contain costs, but also deliver a variety of interrelated services that meet the client's needs. Integrated service delivery models require a different type of education in which professionals receive training in collaborative processes and share goals for patients and clients. Such goals can be met through an interdisciplinary program that introduces the student to the practice of numerous professions, allows for practical observations and mentoring, and enables the student to form role concepts that incorporate interdisciplinary work rather than a solo professional track.

Bachelor of Science Degree Requirements

Interdisciplinary Health and Rehabilitation Sciences Major

The IHRS major requires 29 units of core coursework from several disciplines. Core course content includes professional, developmental, health, ethical, psychosocial and behavioral issues related to aging, illness, and disability.

A major in Interdisciplinary Health and Rehabilitation Sciences requires a minimum of 58 units of study, which includes completion of the 29 unit core and one option (29-44 units). The General Education requirement, special course requirements, and electives complete a total of at least 121 units required for the B.S. degree.

Note: Students may not fulfill option requirements with courses taken to fulfill core requirements.

Interdisciplinary Health and Rehabilitation Sciences

Major requirements58-74
Core Program
(required of all options)29-30

Lower-Division Requirement

Any 3-unit statistics course(3)
 Recommendations for Pre-Rehabilitation Services option are ERA 153 or PSYCH 143 or 144 or SWRK 176 or DS 123 or HS 202; for other options recommendations are HS 92 or other equivalent elementary statistics courses, such as MATH 11

Upper-Division Requirements

HHS 10 or PHTH 102 or COUN 102; GERON 115 or HS 115; HS

114; PSYCH 169 or RLS 125; PHTH 105, 106, 107, 127 (23-24)

Select 3 units from the following:

CDDS91 or 92, 80; GERON or RLS 105; GERON 125 or SWRK 125; HS 90, 131, 182, 190; KINES 118, 137; PHTH 190; RLS 101, 142; SWRK 135.....(3)

Select one of the following options29-44

Pre-Occupational

Therapy Option (36-37)

ART 60 or 70; ANTH 2; COUN 174 or PSYCH 174; PHYAN 64 or PHTH 119; PHYAN 65; PHYS 2A; PSYCH 10; PSYCH 155 or CFS 38; PSYCH 166

Select a minimum of 6 units from the following: CHEM 153; COUN 174 or PSYCH 174; CDDS 91 or 92, 80, 98, 158; ECON 162; GERON or RLS 105; GERON 18 or WS 18; GERON 125 or SWRK 125; GERON 139, 161; GERON 148 or KINES 148; HS 90, 104, 109, 129, 130, 131, 141, 151, 163, 182, 190; ID 145; KINES 109, 116, 118, 137, 163; NSCI 131; NURS 124; PHTH 119, 126, 190; PHYAN 140, 163; PSYCH 103 or GERON 103; PSYCH 169; RLS 101, 142; SOC 147; SPAN 1A or 1B; SWRK 135, 137

Pre-Physical Therapy Option (44)

CHEM 3A, 3B; NURS 124; PHTH 119, 125, 126; PHYAN 65, 140; PHYS 2A, 2B; PSYCH 10

Select a minimum of 6 units from the following: CDDS 91 or 92, 80, 98; ECON 162; GERON or RLS 105; GERON 18 or WS 18; GERON 125 or SWRK 125; GERON 139, 161; GERON 148 or KINES 148; HS 90, 104, 109, 129, 130, 131, 141, 151, 163, 182, 190; ID 145; KINES 109, 116, 118, 137, 163; PHTH 190; PHYAN 163, 165; PSYCH 103 or GERON 103; RLS 142; SOC 147; SPAN 1A or 1B; SWRK 135, 137

Pre-Rehabilitation

Services Option..... (29)

COUN 174 or PSYCH 174; COUN 176 or PSYCH 166; HS 110, 111; PHTH 119 or PHYAN 64; PHYAN 65; PSYCH 10

Select a minimum of 6 units from the following: CDDS 91 or 92, 80, 98; ECON 162; GERON 105 or RLS 105; GERON 18 or WS 18; GERON

125 or SWRK 125; GERON 139, 161; GERON 148 or KINES 148; HS 90, 104, 109, 129, 130, 131, 141, 151, 163, 182, 190; KINES 109, 116, 118, 137; NURS 124; RLS 101, 142; PHTH 190; PSYCH 155 or CFS 38; PSYCH 103 or GERON 103; PSYCH 169; SOC 147; SPAN 1A or 1B; SWRK 135, 137

Pre-Public Health Option (30)

HS 90, 100, 109, 161, 163; PSYCH 174 or COUN 174

Select a minimum of 12 units from the following: HS 104, 105, 110, 115, 131, 133, 135, 151, 154; GERON 10S, 100, 161; RLS 80; CFS 38; PSYCH 166, 169; SWRK 129, 135, 137; CDDS 80, 91 or 92, 98; KINES 116, 118, 209; NURS 124; SOC 147

General Education requirements..... 51

Electives and remaining

degree requirements 2-18*

(See *Degree Requirements*); includes upper-division writing skills

Total 121

* This total indicates that 3 units of PSYCH 10 in G.E. Breadth D3 and one of the following G.E. courses are being applied to the IHRS major: CHEM 3A or PHYS 2A (B1); CDDS 92 or SPAN 1B (C2); GERON or RLS 10S, CFS 38, or HS 90 (E1).

Students seeking admission to the bachelor of science degree program may apply at any point in their undergraduate program. Majors in Interdisciplinary Health and Rehabilitation Sciences (IHRS) must be in good standing with the university and must maintain an overall GPA of 2.5 after admission to the major. Students must meet prerequisite requirements for individual courses.

This curriculum is intended to prepare the student with an interdisciplinary perspective to enter graduate programs in physical therapy, occupational therapy, rehabilitation counseling, and public health. There may be additional requirements for admission to graduate programs.

Students are required to see an adviser in Interdisciplinary Health and Rehabilitation Sciences for assistance in planning the major.

Minor in Interdisciplinary Health and Rehabilitation Sciences

The minor introduces undergraduate university students to the concepts of rehabilitation and health care to augment a pre-professional

program of study for students seeking careers in the health field.

Minor Requirements

The IHRS minor requires 24 units of core coursework from several disciplines. This coursework is intended to prepare the student with an interdisciplinary perspective to enter any health profession. Core course content includes professional, developmental, health, ethical, psychosocial and behavioral issues related to aging, illness, and disability.

CORE:

Lower-Division Requirement (3 units)

Any 3-unit statistics course. Recommendations for Pre-Rehabilitation Services option are ERA 153 or PSYCH 143 or 144 or SWRK 176 or DS 123 or HS 202; for other options recommendations are HS 92 or other equivalent elementary statistics courses, such as MATH 11

Upper-Division Requirements (15 units)

HHS 10 or PHTH 102, GERON 115 or HS 115, PHTH 105, PHTH 106, PHTH 107

Elective Requirements (6 units)

Students must select electives from the following pool:

CDDS 91 or 92, 80; CLAS 101; GERON or RLS 10S; GERON 125 or SWRK 125; HS 90, 131, 182, 190; KINES 118, 137; PHTH 190; RLS 101, 142, SWRK 20, 135

Total required units 24

Students seeking admission to the minor in Interdisciplinary Health and Rehabilitation Sciences (IHRS) may apply at any point in their undergraduate program. Students who minor in Interdisciplinary Health and Rehabilitation Sciences (IHRS) must be in good standing with the university and must maintain an overall GPA of 2.50 after admission to the minor. Students must meet prerequisite requirements for individual courses.

Students are required to see an adviser in interdisciplinary health and rehabilitation sciences for assistance in planning the minor.

Note: The IHRS Minor also requires 6 upper-division units in residence.

Master of Physical Therapy

Physical therapy is a profession dedicated to the improvement of the quality of life. It serves humanity, is holistic in nature, and provides services to persons of all ages, gender, and cultures. In concert with the

mission of the university and to meet the needs of the community, physical therapist professional education seeks to graduate competent, adaptable, and compassionate physical therapy practitioners of the highest quality. The best practitioners are committed to life-long learning, self-development, and critical inquiry; they are also prepared to function autonomously in current and future healthcare environments. The physical therapy professional education at California State University, Fresno seeks to stimulate scholarly inquiry and critical thinking while supporting and encouraging research and its dissemination. The program's mission is to develop outstanding, competent, professional practitioners and future leaders of the profession of physical therapy.

In concert with the American Physical Therapy Association 2020 Vision Statement, the program helps graduates develop the skills to examine, evaluate, and establish a diagnosis and prognosis within the scope of physical therapy practice. Graduates are prepared to implement and manage a physical therapy plan of care and to provide a sound rationale for evaluation and treatment procedures based on a theoretical framework for practice, including evidence-based practice.

Successful completion of the MPT program will prepare students with the following outcomes and abilities in physical therapy management and professional development:

1. Practice across all settings in a safe, legal, ethical and nondiscriminatory manner.
2. Screen individuals to determine the need for physical therapy evaluation or referral to other health professionals.
3. Accurately perform and interpret examination findings to establish a physical therapy diagnosis.
4. Choose and effectively perform appropriate examination procedures.
5. Develop and manage an appropriate physical therapy plan of care including patient education, prevention, enhancement, referral, and discharge planning.
6. Utilize, with safe client-handling skills and an awareness of indications and contraindications, cost-effective efficacious patient management activities that address goals in the plan of care.

7. Re-evaluate/modify the physical therapy plan of care.
8. Provide sound rationale for evaluation and treatment procedures and plan of care development based on a theoretical framework for practice (including evidence-based practice).
9. Cognitively understand patient needs, limits, and capabilities. In conjunction with the theory and application of physical therapy practice, determine when a task or skill can be safely and effectively delegated to another care provider.
10. Provide effective patient/client-related instruction, education, and consultation.
11. Effectively communicate with cultural sensitivity orally, in writing, and non-verbally with clients, caregivers, colleagues, educators, and the public.
12. Participate in administrative/management and supervisory processes.
13. Participate in the community as an advocate for the practice of physical therapy.
14. Engage in critical inquiry.
15. Plan and implement strategies for continued self assessment and professional growth.

Individuals must possess a baccalaureate degree and complete all prerequisite requirements prior to beginning the professional major. Following successful completion of the professional curriculum, the student receives the M.P.T.

Completion of a postgraduate internship is required to be eligible to seek a license to practice physical therapy in the state of California.

Admissions to Master of Physical Therapy Graduate Program

Students are only admitted in the fall semester. Students should apply to the program in the fall prior to anticipated entry into the Physical Therapy Program. Admission to the Master of Physical Therapy program requires two applications: (1) the California State University Graduate Application, which can be submitted online at www.csumentor.edu, and (2) the Physical Therapy Department application, which can be downloaded from the department web site at www.csufresno.edu/physicaltherapy. Review the *Graduate Studies* section in this catalog for graduate admissions information.

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Postbaccalaureate students may apply to the university as “postbaccalaureate undeclared” to pursue prerequisite courses. For these postbaccalaureate applicants, only the CSU Graduate Application, indicating “Undeclared” as the major/objective, should be submitted.

Physical Therapy Applications are available: **July 1.**

Physical Therapy Application Filing Period: **October 1 through November 30.**

A complete application includes an information application, an official transcript from each institution attended including previous spring and summer terms, official GRE test scores, observation verification, and letters of reference. GRE scores are considered during program admissions; however, there is no minimum GRE requirement. Late transcripts or documentation will result in not being considered. Follow program application instructions.

Pre-Admission Requirements for Master of Physical Therapy Program

Lower-division

Anatomy and Physiology

Fresno State: PHTH 119, PHYAN 65
Transfer: Human anatomy with lab and human physiology with lab.

Chemistry

Fresno State: CHEM 1A or 3A, and CHEM 3B
Transfer: Inorganic and organic or biochemistry with labs

Psychology

Fresno State: PSYCH 10
Transfer: General psychology

Physics

Fresno State: PHYS 2A, 2B
Transfer: Physics with lab including mechanics, heat, light, sound, and electricity

Statistics

Fresno State: HS 92
Transfer: Introduction to basic statistics

Upper-division

Psychology

Fresno State: PSYCH 169 or RLS 125
Transfer: Psychology of disability course

Biological Sciences

Fresno State: PHYAN 140
Transfer: Neurophysiology course

The screening committee reviews admission criteria. Prior to admission to the program, the applicant must meet the following requirements:

1. Hold or be eligible to receive a bachelor's degree by the end of the spring semester prior to admission to the program.
2. Have completed or be currently enrolled in the specified lower-division prerequisite courses at time of application. All lower-division courses must be completed by the end of the fall semester prior to admission to the program.
3. Submit GRE test scores by the end of the fall semester prior to admission to the program. Students are encouraged to take the GRE early to avoid delays in acceptance for graduate work.
4. Enroll in upper-division prerequisite courses during the spring semester prior to admission to the program
5. Receive a grade of *C* or better in each prerequisite course and maintain a total prerequisite GPA of 3.0. An overall GPA of 2.5 on the last 60 units completed is required. The Department of Physical Therapy recommends an overall GPA of 3.0 on the last 60 units completed. *CR/NC* grades, correspondence courses, or independent study courses cannot be used for prerequisite requirements. Only those prerequisite courses completed by the end of the fall semester in which application is made will be counted toward ranking of candidates for selection into the graduate program.
6. Provide evidence of knowledge of physical therapy through employment, volunteer work, or observation in a physical therapy department for a minimum of 100 hours. Fifty hours must be in a general in-patient care setting; 50 hours may be in a special area of practice. All observation hours must be under the supervision of a licensed physical therapist.
7. Submit three letters of recommendation, as specified in application instructions.
8. Participate in a personal interview.
9. Submit grades and final transcripts from institutions other than Fresno State as soon as grades are posted. Transcripts should be requested prior to the end of the term.

Meeting the foregoing criteria does not guarantee acceptance into the Master of Physical Therapy program. Students transferring from

community colleges and other colleges or universities who meet the foregoing criteria are considered on the same basis as California State University, Fresno students applying for admission to the program. An applicant must meet the above criteria to be considered for conditionally classified standing in the graduate program.

Classified Graduate Standing

In addition to meeting all admission requirements listed above, the following additional criteria must be met for the applicant to be considered for classified graduate standing:

1. Completion of all (58 units) of coursework listed below with a GPA of 3.0 each semester and overall, and a *C* or better in every course.
2. Be recommended by the physical therapy faculty.

An applicant admitted with conditionally classified standing may be granted classified standing upon meeting the above requirements.

Preprofessional prerequisites for the Master of Physical Therapy Program

	<i>Units</i>
Natural Sciences Category.....	18-19
CHEM 1A or CHEM 3A; CHEM 3B; HS 92; PHYS 2A, 2B	
Biological Sciences Category	21
PHYAN 65, 140; PHTH 119, 125, 126, 127	
Behavioral Sciences Category	10
PSYCH 10; PHTH 106; PSYCH 169 or RLS 125	
Preclinical Sciences Category.....	8
NURS 124; PHTH 105, 107	
Total	57-58

For department application or admission information, write to the following address and enclose a self-addressed, stamped, legal-size envelope:

Admissions Coordinator
Department of Physical Therapy
College of Health and Human Services
California State University, Fresno
2345 E. San Ramon Ave. M/S MH29
Fresno, CA 93740-8031

The M.P.T. program is open to all college graduates with a bachelor's degree who have met upper- and lower-division prerequisite requirements and show intellectual promise and ability to perform at a satisfactory level during their graduate studies.

Criteria for Departmental Retention and Progression

The following are criteria for retention in the MPT program and progression to the next semester in the program:

1. Maintaining a minimum 3.0 GPA each semester in the program
2. Maintaining a minimum cumulative 3.0 GPA in M.P.T. degree requirements
3. Achieving a minimum grade of *C* (or *CR*) in each PHTH course.*
4. Enrolling in and completing all required courses in sequence.

Students must carry malpractice insurance, must purchase an appropriate laboratory coat, and must provide their own transportation to hospitals and clinics for off-campus classes and clinical laboratories. Additional laboratory fees may be required. Students must also provide for all expenses while taking the post-graduate clinical internship. Expenses include student fees, housing, meals, and travel.

*Any student receiving a grade less than *C* will not be able to continue in the program, regardless of semester or overall GPA. Please note that grade substitution is not permitted at the graduate level. Demonstrated required competency in clinical coursework, with minimum grades of *B* in PHTH 254 and 255 and *CR* grades in PHTH 256 and 257. A student receiving a grade of *C* or *NC* in a PHTH course will have one opportunity to repeat the course. A second grade of less than a *C* or *NC* in a repeated PHTH course will result in disqualification from the program.

Requirements for the Master of Physical Therapy

Units

Core Requirements	63
<i>(see Advising Note 1)</i>	
PHTH 206, 207, 208, 209, 217, 218, 219, 226, 227, 228, 229, 236, 237, 238, 239, 254, 255, 256, 257, 258, 259, 260, 291	
Electives	6
and Comprehensive Examination	0
PHTH 240-249, 288T or PHTH 298 - Project (6 units) <i>(see Advising Note 2)</i>	
Comprehensive Examination	0
Total	69

Postgraduate Internship

Certification requirements..... **12**
PHTH 275 *(see Advising Note 3)*

Advising Notes

1. PHTH 256 and 257 clinical experiences and PHTH 275 postgraduate internship are conducted in a variety of clinical faci-

ties through out the state. Students must provide for all expenses including housing, meals, and travel. These are offered *CR/NC* only.

2. PHTH 298 has limited enrollment and therefore the student must go through a selection process to receive permission to enroll.
3. PHTH 275 must be completed to be eligible to take the state examination for licensure.

Advancement to Candidacy Requirements. Students usually advance to candidacy following the completion of two full-time semesters of graduate coursework in the Master of Physical Therapy program. Prior to advancement to candidacy, students must have the following:

1. Classified graduate student standing.
2. A minimum GPA of 3.0 (overall, program, and California State University, Fresno) on all coursework completed after the date of the first course to be included in the master's degree program, with no grade below *C*.
3. Demonstrated required competency in clinical coursework (PHTH 251-257) with grade of *CR*.
4. Demonstrated graduate level writing proficiency (assessment of a portfolio of writings is used). This requirement must be met within one semester of classified graduate standing. Contact the Department of Physical Therapy for detailed requirements.
5. Approval from the faculty to take the department's comprehensive written examination with an oral defense.

A culminating experience is required of all Fresno State master's degree candidates. Students in physical therapy satisfy the requirement through a comprehensive written examination with an oral defense. The graduate project is limited to 10 students and therefore each student must go through a selection process to get permission to enroll in PHTH 298.

COURSES
Physical Therapy (PHTH)

PHTH 102. Rehabilitation Professions (3)
(Same as COUN 102.) Overview of various rehabilitation professions, the development of an interdisciplinary rehabilitation service, and principles and philosophies of rehabilitation. Responsibilities, educational requirements, practice parameters, and job locations of

rehabilitation professionals. Taught in the classroom in the fall semester and online in the spring semester.

PHTH 105. Medical Terminology for Health Professionals (3)
Study of word parts, definitions, spelling, analysis, synthesis, and use of medical vocabulary. This course is taught in classroom sections or may be taken entirely online.

PHTH 106. Patient Practitioner Interaction (3)
Prerequisites: PSYCH 169. Patient-practitioner interaction in health care, with an emphasis on the development of effective patient/therapist communication skills for a variety of health care situations, including patient education and chronic and terminal illness.

PHTH 107. Health Care Issues (3)
Analysis of the health care system and its influence on access to and delivery of health care services. Special focus on needs and mechanisms for integrated service delivery for prevention and care of acute and chronic illnesses and disabilities.

PHTH 119. Anatomy of the Appendicular Skeleton (3)
An in-depth study of the structure and function of the musculoskeletal system with a special emphasis on the joints of the upper and lower extremities. Includes a laboratory utilizing cadavers and prosected material to integrate muscle and tendon attachments with bony landmarks. Joint Structure and function will also be demonstrated. (2 lecture, 3 lab hours) (Instructional materials fee, \$35)

PHTH 125. Anatomy of the Axial Skeleton (4)
Prerequisite: PHTH 119. Study of the structure, function and biomechanics of the neuro-musculoskeletal systems with emphasis on spine, pelvis, thoracic/peritoneal, visceral and temporomandibular joint. Includes dissection lab and prosected material. (3 lecture, 3 dissection lab hours) (Instructional materials fee, \$35)

PHTH 126. Applied Pathophysiology (3)
Prerequisite: PHYAN 65. Advanced study of physiology of body systems and responses to normal aging, environmental influences, and pathological dysfunction. (Fall semester only.)

PHTH 127. Neuromuscular Processes in Human Development and Aging (3)
The study of human development from birth to senescence with focus on concepts of motor and neurological development processes integral to evaluation and treatment inter-

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vention in neurological disability. (Spring semester only.)

PHTH 180T. Topics in Physical Therapy (1-3; max total 12 if no topic repeated)

Prerequisite: permission of instructor. Advanced techniques in physical therapy and new trends relating to the care of patients.

PHTH 190. Independent Study (1-3; max total 6)

See *Academic Placement—Independent Study*. Approved for *RP* grading.

GRADUATE COURSES

Physical Therapy (PHTH)

Graduate physical therapy students will engage in professional coursework which is based on the mission of the department, college, and university. The curriculum incorporates a combination of didactic, clinical, and research learning experiences that are reflective of contemporary physical therapy practice. It includes instruction in foundational sciences, clinical sciences, and learning experiences designed to produce competence physical therapy practitioners of the highest quality who are prepared to function autonomously in current and future healthcare environments.

Emphasis throughout the coursework is on preparing students to be the following:

- competent in academic, cognitive, interpersonal, and clinical skills
- compassionate
- effective communicators
- critical thinkers
- problem solvers
- professional
- autonomous practitioners
- researchers
- educators
- consultants
- reflective generalists

PHTH 206. Professional Foundations in Physical Therapy (3)

Professional behavior standards in relation to patient care interactions, relationships with colleagues and community. Introduction to current issues in physical therapy and the APTA. Legal and ethical responsibilities of the physical therapist in the delivery of health care services.

PHTH 207. Foundations of Patient Assessment in Physical Therapy (3)

Selected theory and clinical application of examination, history, system review, and specific tests and measures which make up the assessment process for the patient receiving physical therapy.

PHTH 208. Foundations of Clinical Management in Physical Therapy (4)

Selected theory and clinical application of essential treatment procedures and interventions utilized in physical therapy practice including physical agents, massage, therapeutic exercise, and transfer and mobility training.

PHTH 209. Clinical Pathokinesiology (3)

Normal and abnormal biomechanics of the human body will be investigated with an emphasis on analyzing and synthesizing the component motion of joints of the upper and lower extremities, spine, and pelvis.

PHTH 217. Orthopedic Management in Physical Therapy I (4)

Analysis of musculoskeletal disabilities with emphasis on physical assessment, methods of therapeutic intervention, clinical decision making and program planning. Selected lectures by medical practitioners on medical-surgical management of orthopedic conditions. Focus of course will be dysfunction involving the extremities.

PHTH 218. Orthopedic Management in Physical Therapy II (3)

Prerequisite: PHTH 217. Analysis of musculoskeletal disabilities with emphasis on physical assessment, methods of therapeutic intervention, clinical decision making and program planning. Selected lectures by medical practitioners on medical-surgical management of orthopedic conditions. Focus of course dysfunction involving the spine and pelvic girdle.

PHTH 219. Advanced Therapeutic Technology (3)

Study of work station and ergonomic analysis as related to posture and gait. The theory and application of prosthetic and orthotic devices as applied to standing, sitting, and walking.

PHTH 226. Electrophysiologic Approaches to Patient Care (3)

Prerequisites: PHTH 126; PHYAN 140. Exploration of advanced theories and principles related to the clinical use of electrophysiologic modalities. Includes electroneuromuscular stimulation for motor performance, nerve function, pain management and tissue repair. (2 lecture, 3 lab hours)

PHTH 227. Applied Neurosciences in Physical Therapy (4)

Advanced study in normal structure and function of the peripheral and central nervous system as a basis for understanding the clinical manifestations seen in neurological disorders including how a physical therapist would manage these manifestations.

PHTH 228. Management of Neurological Disorders in Physical Therapy I (3)

Advanced evaluation and treatment approaches to neurological disabilities in adults with emphasis on therapeutic intervention, program planning, and outcome measurements for the patient with neurological problems such as balance disorders, stroke, and Parkinson's disease.

PHTH 229. Management of Neurological Disorders in Physical Therapy II (3)

Advanced evaluation and treatment approaches to neurological disabilities in adults with emphasis on therapeutic intervention, program planning, and outcome measurements for the patient with neurological problems such as spinal cord injury, multiple sclerosis, and traumatic head injury.

PHTH 236. Physical Therapy Management of Body Systems (3)

Evaluation and therapeutic intervention in the clinical management of normal and pathological conditions of the cardiovascular, pulmonary, endocrine, and integumentary systems. A focus on the development of advanced knowledge and skills in patient evaluation, program planning, and treatment procedures.

PHTH 237. Physical Therapy Management in Pediatrics (3)

Prerequisites: PHTH 207, 208. Advanced study of diagnosis and physical therapy problems found in pediatrics. Evaluation and intervention principles are used to discuss and explore clinical manifestations associated with diseases and functional impairments. Emphasis will be placed on therapeutic intervention and program planning.

PHTH 238. Physical Therapy Management in Geriatrics (2)

A synthesis of biology of aging with common orthopedic and neurological problems special to the older patient. This course emphasizes analysis of clinical problems and issues facing the physical therapist in utilizing functional testing and community resources with the elderly.

PHTH 239. Advanced Differential Diagnosis in Physical Therapy (3)

Study of functional profiles of clients with emphasis on signs and symptoms associated with musculoskeletal, cardiopulmonary, peripheral vascular, and neurological diagnosis. Emphasis on methods to determine the most appropriate intervention strategy for each patient or client through the diagnostic process.

PHTH 240. Advances in Orthopedic Physical Therapy I (2)
Prerequisite: PHTH 217, 218 or permission of instructor. Exploration of treatment of orthopedic problems.

PHTH 241. Advances in Physical Therapy II (2)
Prerequisite: PHTH 217, 218 or permission of instructor. A continuation of Advances in Orthopedic Physical Therapy I.

PHTH 242. Advanced Clinical Anatomy I (2)
Prerequisite: PHTH 115, 125 or permission of instructor. Exploration of clinical application of anatomical structures of joints.

PHTH 243. Advanced Clinical Anatomy II (2)
Prerequisite: PHTH 242 or permission of instructor. A continuation of Advanced Clinical Anatomy I.

PHTH 244. Advances in Management of the Aging Population (2)
Prerequisite: PHTH 127 or permission of instructor. Exploration of special approaches and considerations of intervention of conditions of aging.

PHTH 245. Advances in Management of the Neurological Patient (2)
Prerequisite: PHTH 227, 228 or permission of instructor. Exploration of advanced multisystem treatment approaches in neuro-rehabilitation.

PHTH 246. Management Strategies for Independent Practice (2)
Prerequisite: permission of instructor. Exploration of strategies for developing and maintaining a physical therapy service in an independent environment.

PHTH 247. Sports Injuries (2)
Exploration in advances in management of sports injuries.

PHTH 248. Advances in Cardiac Rehabilitation (2)
Prerequisite: PHTH 236 or permission of instructor. Exploration of the components of implementing and maintaining multilevels of cardiac rehabilitation and the management of patients with cardiac disease.

PHTH 249. Contemporary Issues in Delivery of Physical Therapy Services (2)
Prerequisite: permission of instructor. Exploration of emerging trends and issues in contemporary physical therapy practice.

PHTH 254. Clinical Learning I (1)
Prerequisite: Satisfactory completion of academic courses to date. This class is taught in an experimental model exposing students to clinical decision analysis by exposing them to the Gait, Balance, and Mobility Clinic.

Students primarily observe evaluation and treatment of clients.

PHTH 255. Clinical Learning II (2)
Prerequisite: PHTH 254; satisfactory completion of academic courses to date. Using an experimental model for clinical decision analysis, this class requires the student to consider the appropriateness of various evaluation and treatment techniques by evaluating and treating clients enrolled in "Fall Prevention and Balance Disorder" class.

PHTH 256. Clinical Experience I (2)
Prerequisite: satisfactory completion of academic courses to date. The student will be guided in the application of academic knowledge to patient care during this clinic externship. Comprehensive examination, evaluation, and intervention will be used to manage the physical therapy client. Approved for *RP* grading and *CR/NC* grading only.

PHTH 257. Clinical Experience II (2)
Prerequisite: PHTH 256. This externship provides guidance to the student in applying academic knowledge in a clinical setting. Students will have the opportunity to complete a comprehensive examination, evaluation and treatment intervention, and implement complex decision making analysis in physical therapy patient management. Approved for *RP* grading and *CR/NC* grading only.

PHTH 258. Integrated Clinical Management I (2)
Prerequisite: PHTH 256; successful completion of the first year of the Master of Physical Therapy Program. Application of evidence-based practice principles in physical therapy. Integration of diagnostic findings, patient history and resource constraints to establish a physical therapy plan of care. Emphasis on appropriate communication and case management.

PHTH 259. Integrated Clinical Management II (2)
Prerequisite: PHTH 256, 258; successful completion of the first year of the Master of Physical Therapy Program. Integration of diagnostic findings, patient history, and resource constraints to establish a physical therapy plan of care. Emphasis on management of patients with multi-system involvement and justification of service delivery in regard to outcomes and resource limitations.

PHTH 260. Administration of Physical Therapy Services (2)
Prerequisite: PHTH 206. Application of administration and organization of a physical therapy service, including supervision issues, fiscal considerations, marketing and public relations, outcomes management, utilization and quality management.

PHTH 262. Cooperative Education in Physical Therapy (1-2; max total 6)
Prerequisite: student must have completed the first semester of the Professional Physical Therapy Program. Cooperative education students are given the opportunity to combine classroom theory with "on-the-job" training to work with professionals in their field of study. *CR/NC* grading only. (Formerly PHTH 180T)

PHTH 275. Postgraduate Clinical Internship (12)
Prerequisite: PHTH 259. Final experience for majors. The internship is 18 weeks of clinical experience at selected facilities throughout the state. Certification of internship completion is required before the graduate is eligible to take the state examination for licensure. *CR/NC* grading only.

PHTH 288T. Topics in Physical Therapy (2-6)
Prerequisite: permission of instructor. Selected topics in physical therapy related to recent developments and advances in the knowledge and practice of physical therapy.

PHTH 290. Independent Study (1)
Supervised guidance for students who wish to do additional research. Approved for *RP* grading.

PHTH 291. Research Methods (3)
Promotes skills in application of research design and critical reading, based on principles of evidence-based practice. Emphasis will be placed on evaluation of published research and clinical applications. Descriptive, correlational, experimental and single subject designs will be discussed.

PHTH 298. Project (6)
Prerequisite: advancement to candidacy for MPT degree. See *Criteria for Thesis and Project*. Requires completion of a project appropriate to the profession of physical therapy that demonstrates critical inquiry, independent thinking, and rationale. Requires an abstract, written manuscript, and oral defense. Limited enrollment. Student must have department's approval. Approved for *RP* grading. (Formerly PHTH 292A-B)

IN-SERVICE COURSE

(See *Catalog Numbering System*.)

Physical Therapy (PHTH)

PHTH 302T. Topics in Physical Therapy (1-6; repeatable with different topics)
Selected topics in physical therapy for practicing clinicians in the health fields.