Physical Therapy

K. Gibson, Chair
Department of Physical Therapy
School of Health Professions
801 Clark Hall
(573) 882-7103
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https://healthprofessions.missouri.edu/physical-therapy/

Physical Therapy involves the evaluation and treatment of physical disability and pain that may result from injury, disease or developmental disability. Prevention of disability and public education are also roles of the physical therapist. Physical therapists use tests and measurements to assess body system dysfunction and determine diagnosis and treatment. Daily living skills, including work, are also addressed.

The University of Missouri offers a Doctor of Physical Therapy degree. No master's degree or terminal undergraduate degree in Physical Therapy are available.

Admissions

Doctor of Physical Therapy Program, Regular Admissions

Most students admitted to the Doctor of Physical Therapy program will have a baccalaureate degree. Students who are interested in pursuing application to the Doctor of Physical Therapy program are encouraged to work on an undergraduate degree that will allow them to fulfill application requirements.

Doctor of Physical Therapy Program, Early Admissions

Admission to the Doctor of Physical Therapy program may be available to a small group of students who have completed at least 90 credit hours, completed at least six full-time semesters of residential course work, all MU general education requirements and have shown excellent academic progress. Students who gain early admission to the Doctor of Physical Therapy program will be awarded the Bachelor of Health Science in pre-professional physical therapy upon completing one year of coursework in the physical therapy program.

Information regarding the admissions procedures and curriculum for the Doctor of Physical Therapy (http://catalog.missouri.edu/undergraduategraduate/schoolofhealthprofessions/physicaltherapy/dpt-physical-therapy) program can be found on the graduate tab.

Faculty

Emeritus Professor M. Brown*, M. A. Minor*
Teaching Professor K. Gibson*
Clinical Professor C. C. Abbott*
Associate Professor E. A. Dannecker**, T. M. Guess, S. P. Sayers**
Associate Teaching Professor T. Briedwell*, K. Gibson*, M. S. Hargrove*, J. Krug*, D.E. Martin*
Assistant Professor J. Craggs
Assistant Teaching Professor J. Bridges*, A. Campbell*, E. Prost*, K. Stephens*, B. Willis*
Assistant Clinical Professor J. B. Mann
Instructor C. A. Blow*, A. C. Connell*, N. J. Dietz**

• Graduate Faculty Member - membership is required to teach graduate-level courses, chair master's thesis committees, and serve on doctoral examination and dissertation committees.
• Doctoral Faculty Member - membership is required to chair doctoral examination or dissertation committees. Graduate faculty membership is a prerequisite for Doctoral faculty membership.

Undergraduate

• BHS in Pre-Professional Physical Therapy (http://catalog.missouri.edu/undergraduategraduate/schoolofhealthprofessions/physicaltherapy/bhs-pre-prof-phys-therapy)

Graduate

• DPT in Physical Therapy (http://catalog.missouri.edu/undergraduategraduate/schoolofhealthprofessions/physicaltherapy/dpt-physical-therapy)

Physical Therapy Doctoral Degree Program
School of Health Professions
801 Clark Hall
573-882-7103
573-884-8369 (fax)
https://healthprofessions.missouri.edu/physical-therapy/

Students who enter the MU Physical Therapy program will complete a Doctor of Physical Therapy (DPT) degree program.

Careers

The DPT degree is an entry-level clinical degree that prepares the student to enter the field of physical therapy as a general practitioner with a background in musculoskeletal, neuromuscular, cardiovascular/pulmonary and integumentary systems.

Financial Aid from the Program

Students may apply for scholarships during the professional phase of the program. Check the program website or ask the program contact for availability and details.

PH_THR 1000: Introduction to Physical Therapy
Acquaints students with the physical therapy profession including the required educational preparation, practice settings, sample interventions, current issues, trends and research. Graded on S/U basis only.

Credit Hour: 1

PH_THR 2420: Biology of Healthy Living
(same as BIOMED 2420 and NEP 2420). Biology of inactivity as a casual factor in chronic disease.

Credit Hours: 2

PH_THR 2500: Musculoskeletal Anatomy and Injury
Study of human musculoskeletal anatomy, movement, common injury and physical therapy management. Graded on an A-F basis only.

Credit Hours: 3

Recommended: biology
PH_THR 3022: Principles of Physical Therapy
History of physical therapy; the profession; basic skills; first aid, infection control, vital signs; medical terminology. Graded on S/U basis only.
Credit Hour: 1

PH_THR 4085: Problems in Physical Therapy
Independent study, based upon educational goals, leading to completion of a project or paper. Specific objectives and timeline developed with the supervision of a faculty member.
Credit Hour: 1-3
Prerequisites: instructor's consent

PH_THR 4120: Clinical Education IA
(cross-leveled with PH_THR 7120). An introduction to clinical education in Physical Therapy; includes development of foundational clinical skills and behaviors as well as experience in the PhysZou clinical setting. Graded on S/U basis only.
Credit Hour: 1

PH_THR 4150: Clinical Education IB
(cross-leveled with PH_THR 7150). Continuation of Clinical Education IA with further emphasis on current events in Physical Therapy as well as the professional attributes of communication, teamwork and problem solving. Required experience in PhysZou clinical setting. Graded on S/U basis only.
Credit Hour: 1

PH_THR 4240: Applied Neurophysiology for Allied Health Students
(same as OC_THR 4240; cross-leveled with PH_THR 7240, OC_THR 7240). Principles of basic neurophysiology, emphasizing correlation of structure and function of the nervous system.
Credit Hours: 3

PH_THR 4250: Human Kinesiology
(same as HTH_PR 4250). Study of principles of physical laws, biomechanics and anatomic structure relative to human movement. Applications through analysis of daily functional performance, exercise, and sport.
Credit Hours: 3
Prerequisites: PTH_AS 2201 or PH_THR 2500

PH_THR 4270: Clinical Pathophysiology
(same as OC_THR 4270; cross-leveled with PH_THR 7270, OC_THR 7270). Interdisciplinary and case-based examination of the pathophysiology, prevention and general health management of disease/injury across the lifespan encountered in occupational and physical therapy practice. Graded on A-F basis only.
Credit Hours: 3
Prerequisites: successful completion of prior professional coursework

PH_THR 4330: Physical Agents
Biophysics, theory and technique concerning the use of physical agents as adjuncts to exercise programs. Includes thermal, electrical, light, hydrotherapy and mechanical agents.

PH_THR 4420: Foundations of Therapeutic Exercise
Physiological basis of exercise throughout the lifespan with emphasis on the musculoskeletal, neuromuscular, cardiovascular/pulmonary and integumentary systems and the effects of injury and disease on these systems.
Credit Hours: 3

PH_THR 4480: Medical Testing in Rehabilitation
Diagnostic tests used by disciplines within and outside of physical therapy. Studies include laboratory, nuclear medicine, radiologic, and motion analysis. Emphasis placed on interpretation of results as they apply to physical therapy examination and intervention.
Credit Hours: 3

PH_THR 4510: Evidence-Based Practice
Clinical research design and methods overview. Critical review of current and historically important professional literature. Effective writing related to clinically applicable research using computer and library resources. Identification of research questions.
Credit Hours: 3

PH_THR 4520: Applied Therapeutic Exercise
Application of therapeutic exercise with an emphasis on evidenced-based exercise prescription, modes and techniques of exercise typically seen in rehabilitation.
Credit Hours: 3

PH_THR 4560: Movement Theory and Application
Human sensorimotor development; motor learning; motor control theories; developmental and practical application to exercise; proprioceptive neuromuscular facilitation.
Credit Hours: 2

PH_THR 4570: Bridging the Clinical-Research Gap
This class focuses on theories of clinical decision making and Evidence-based Practice, their applications to the clinical setting and dissemination of such information to colleagues in professional forums. Graded on A-F basis only.
Credit Hours: 3

PH_THR 4620: Introduction to Orthopedic Physical Therapy with Laboratory
Physical therapy diagnosis, management, and prevention of disorders of the musculoskeletal system; basics of orthopedic manual therapy. Includes laboratory.
Credit Hours: 3

PH_THR 4680: Orthopedic Physical Therapy
Physical therapy diagnosis, management, and prevention of disorders of the musculoskeletal system; continuation of orthopedic manual therapy.
emphasizing the axial skeleton; traction; massage; taping; sport-specific injury rehabilitation; orthotics.

Credit Hours: 3

**PH_THR 4730: Pediatric Physical Therapy**
Physical therapy evaluation and treatment of children with movement dysfunction. Emphasis on therapeutic exercise.

Credit Hours: 4

**PH_THR 4770: Rehabilitation of the Neurologically Impaired Adult**
Physical Therapy evaluation and treatment of adults who have incurred neurological deficits; emphasis on the restorative care of individuals following spinal cord injury, stroke, and traumatic head injury.

Credit Hours: 4

**PH_THR 4790: Pharmacology in Rehabilitation**
Principles of pharmacology including pharmacokinetics, pharmacodynamics, and toxicology of common drugs encountered in rehabilitation. Emphasis on pharmacology related to the musculoskeletal, neuromuscular, cardiovascular/pulmonary and integumentary systems across the lifespan.

Credit Hours: 2
Prerequisites: Restricted to students accepted into a professional major

**PH_THR 4960: Special Readings in Physical Therapy**
Independent readings selected in consultation with supervising faculty member. Identified educational goals and activities; discussion, annotated bibliography or report.

Credit Hour: 1-3
Prerequisites: instructor's consent

**PH_THR 4965: Directed Readings in Physical Therapy**
Selected readings on specific topics.

Credit Hour: 1-99
Prerequisites: instructor's consent

**PH_THR 4980: Clinical Evaluation and Procedures with Laboratory**
Principles and procedures of basic evaluation methods and documentation: muscle strength, range of motion, muscle balance, posture, neurologic tests. Includes laboratory.

Credit Hours: 3

**PH_THR 4981: Clinical Kinesiology with Laboratory**
Advanced Kinesiology addressing functional mobility; specifics of normal human gait; pathokinetics of gait. Assistive devices; wheelchairs; orthoses and prostheses. Includes laboratory.

Credit Hours: 3

**PH_THR 7120: Clinical Education IA**
(cross-leveled with PH_THR 4120). An introduction to clinical education in Physical Therapy; includes development of foundational clinical skills and behaviors as well as experience in PhysZou clinical setting. Graded on S/U basis only.

Credit Hour: 1

**PH_THR 7150: Clinical Education IB**
(cross-leveled with PH_THR 4150). Continuation of Clinical Education IA with further emphasis on current events in Physical Therapy as well as the professional attributes of communication, teamwork and problem solving. Required experience in PhysZou clinical setting. Graded on S/U basis only.

Credit Hour: 1

**PH_THR 7240: Applied Neurophysiology for Allied Health Students**
(same as OC_THR 7240; cross-leveled with OC_THR 4240, PH_THR 4240). Principles of basic neurophysiology, emphasizing correlation of structure and function of the nervous system.

Credit Hours: 3

**PH_THR 7250: Human Kinesiology**
(same as HTH_PR 4250, OC_THR 4220 or OC_THR 7220). Study of principles of physical laws, biomechanics and anatomic structure relative to human movement. Applications through analysis of daily functional performance, exercise, and sport.

Credit Hours: 3
Prerequisites: Human Anatomy

**PH_THR 7270: Clinical Pathophysiology**
(same as OC_THR 7270; cross-leveled with PH_THR 4270, OC_THR 4270) Interdisciplinary and case-based examination of the pathophysiology, prevention and general health management of disease/injury across the lifespan encountered in occupational and physical therapy practice.

Credit Hours: 3

**PH_THR 7330: Physical Agents**
Biophysics, theory and technique concerning the use of physical agents as adjuncts to exercise programs. Includes thermal, electrical, light, hydrotherapy and mechanical agents.

Credit Hours: 3

**PH_THR 7420: Foundations of Therapeutic Exercise**
Physiologic basis of exercise throughout the lifespan with emphasis on the musculoskeletal, neuromuscular, cardiovascular/ pulmonary and integumentary systems and the effects of injury and disease on these systems.

Credit Hours: 3

**PH_THR 7480: Medical Testing in Rehabilitation**
Diagnostic test used by disciplines within and outside of physical therapy. Studies include laboratory, nuclear medicine, radiologic, and motion analysis. Emphasis placed on interpretation of results as they apply to physical therapy examination and intervention.

Credit Hours: 3
Prerequisites: Restricted to students accepted into professional major
PH_THR 7510: Evidence-Based Practice
Clinical research design and methods overview. Critical review of current and historically important professional literature. Effective writing related to clinically applicable research using computer and library resources. Identification of research questions.
Credit Hours: 3
Prerequisites: departmental consent

PH_THR 7520: Applied Therapeutic Exercise
Application of therapeutic exercise with an emphasis on evidenced-based exercise prescription, modes and techniques of exercise typically seen in rehabilitation.
Credit Hours: 3

PH_THR 7550: Psychosocial Issues for Health Promotion
Psychological and social factors impact people’s health and the American Physical Therapy Association has called for interprofessional approaches for the provision of fitness, health promotion, wellness, and risk reduction programs to enhance quality of life for persons across the life-span. This course focuses on psychosocial issues for health promotion in order to help future health care providers and scientists to improve the health and well-being of people. Graded on A-F basis only.
Credit Hours: 2
Prerequisites: Restricted to students who are admitted into the Physical Therapy-DPT program

PH_THR 7570: Bridging the Clinical-Research Gap
This class focuses on theories of clinical decision making and Evidence-based Practice, their applications to the clinical setting and dissemination of such information to colleagues in professional forums. Graded on A-F basis only.
Credit Hours: 3

PH_THR 7620: Introduction to Orthopedic Physical Therapy with Laboratory
Physical therapy diagnosis, management, and prevention of disorders of the musculoskeletal system; basics of orthopedic manual therapy. Includes laboratory.
Credit Hours: 3

PH_THR 7680: Orthopedic Physical Therapy
Physical therapy diagnosis, management, and prevention of disorders of the musculoskeletal system; continuation of orthopedic manual therapy emphasizing the axial skeleton; traction; massage; taping; sport-specific injury rehabilitation; orthotics.
Credit Hours: 3
Prerequisites: PH_THR 4620

PH_THR 7730: Pediatric Physical Therapy
Physical therapy evaluation and treatment of children with movement dysfunction. Emphasis on therapeutic exercise.
Credit Hours: 4

PH_THR 7770: Rehabilitation of the Neurologically Impaired Adult
Physical Therapy evaluation and treatment of adults who have incurred neurological deficits; emphasis on the restorative care of individuals following spinal cord injury, stroke, and traumatic head injury.
Credit Hours: 4

PH_THR 7780: Differential Diagnosis in Physical Therapy
Evidence-based clinical decision making emphasizing health screenings and system review to determine physical therapy diagnosis/need for referral to other health care professionals.
Credit Hours: 3
Prerequisites: Restricted to students accepted into the professional major

PH_THR 7790: Pharmacology in Rehabilitation
Principles of pharmacology including pharmacokinetics, pharmacodynamics, and toxicology of common drugs encountered in rehabilitation. Emphasis on pharmacology related to the musculoskeletal, neuromuscular, cardiovascular/pulmonary and integumentary systems across the lifespan.
Credit Hours: 2
Prerequisites: Restricted to students accepted into professional major

PH_THR 7850: Assessment and Neuropsychology of Pain
Pain is a common problem that impairs people’s quality of life and costs millions of dollars annually. Yet, an investigation of physical therapy education programs in the U.S. supported inadequate coverage of pain. This course focuses on the assessment and neuropsychology of pain in order to help future health care providers and scientists to improve the health and well-being of people with impaired quality of life due to pain. Graded on A-F basis only.
Credit Hour: 1
Prerequisites: Restricted to students who are admitted into the Physical Therapy-DPT program

PH_THR 7890: Case Management I
Evaluation and team approach to physical therapy management in adult medical and surgical conditions: cardiopulmonary, rheumatic, oncologic, integumentary or wound care, including major burn injury. Psychosocial and ethical issues incorporated. Problem based; laboratory.
Credit Hours: 5

PH_THR 7940: Clinical Education II
Full time, supervised clinical experience addressing application of basic skills in patient evaluation and treatment, documentation and professional behaviors. Graded on S/U basis only.
Credit Hours: 5

PH_THR 7945: Clinical Education III
Continuation of supervised clinical education. (Capstone course). Graded on S/U basis only.
Credit Hours: 7
Prerequisites: Successful completion of PH_THR 7940
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
</tr>
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<tbody>
<tr>
<td>PH_THR 7960</td>
<td>Special Readings in Physical Therapy</td>
<td>Independent readings selected in consultation with supervising faculty member. Identified educational goals and activities; discussion, annotated bibliography or report.</td>
<td>1-3</td>
<td>instructor's consent</td>
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<tr>
<td>PH_THR 7965</td>
<td>Directed Readings in Physical Therapy</td>
<td>Selected readings on specific topics.</td>
<td>1-99</td>
<td>instructor's consent</td>
</tr>
<tr>
<td>PH_THR 7980</td>
<td>Clinical Evaluation and Procedures with Laboratory</td>
<td>Principles and procedures of basic evaluation methods and documentation: transfers, body mechanics, muscle strength, range of motion, muscle length, neurologic tests. Includes laboratory. Includes discussion with emphasis on critical thinking and clinical application through problem solving.</td>
<td>4</td>
<td>Restricted to physical therapy students only, Successful completion of prior professional coursework</td>
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<tr>
<td>PH_THR 7981</td>
<td>Clinical Kinesiology with Laboratory</td>
<td>Advanced Kinesiology addressing functional mobility; specifics of normal human gait; pathokinetics of gait. Assistive devices; wheelchairs; orthoses and prostheses. Includes laboratory.</td>
<td>3</td>
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<tr>
<td>PH_THR 8000</td>
<td>Health Policy for Physical Therapy</td>
<td>This course is designed for physical therapy students and will provide an introduction to health policy along with an overview of the health care system in the United States, including its structures, financing mechanisms, and outcomes. Lecture/reflective writing/written exams. Graded on A-F basis only.</td>
<td>2</td>
<td>Successful completion of prior coursework</td>
</tr>
<tr>
<td>PH_THR 8001</td>
<td>Topics in Physical Therapy</td>
<td>Organized study of selected topics in physical therapy, health and wellness, prevention of disease and disability, and the rehabilitation sciences. Specific content may vary from semester to semester.</td>
<td>1-99</td>
<td>instructor's consent</td>
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<tr>
<td>PH_THR 8080</td>
<td>Special Skills in Physical Therapy</td>
<td>This course will offer a menu of options to students to develop additional knowledge about specific skills in the physical therapy profession. Students may choose topics of interest in addition to the mandatory sessions to meet a minimum of 800 minutes of contact. Graded on S/U basis only. Prerequisite: successful completion of prior professional coursework.</td>
<td>1</td>
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<tr>
<td>PH_THR 8085</td>
<td>Problems in Physical Therapy</td>
<td>Independent study and development of a clinical or research paper, poster or workshop suitable for presentation in a symposium or conference. Specific plan individually developed with advisor. Journal reviews.</td>
<td>1-3</td>
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<tr>
<td>PH_THR 8087</td>
<td>Seminar in Physical Therapy</td>
<td>Integrate previously learned content in unique patient cases and comprehensive review and evaluation of readiness for entry level physical therapist practice, in both didactic and psycho-motor domains. Enrollment is limited to students in professional physical therapy program.</td>
<td>4</td>
<td>departmental consent</td>
</tr>
<tr>
<td>PH_THR 8130</td>
<td>Professional Issues in the 21st Century</td>
<td>The physical therapist as health care professional, administrator, and educator; legal, ethical, and political issues. Service delivery management; delegation of care; rural vs. urban health care needs.</td>
<td>3</td>
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<tr>
<td>PH_THR 8390</td>
<td>Case Management II with Laboratory</td>
<td>Complex orthopedic problems in persons of all ages; supervision, reimbursement, ethical/legal situations; community programs for injury prevention; work capacity evaluation/work hardening; consultation. Problem-based format; laboratory.</td>
<td>5</td>
<td>PH_THR 7890</td>
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<tr>
<td>PH_THR 8690</td>
<td>Case Management III with Laboratory</td>
<td>Traditional and contemporary theories of physical therapy in advanced rehabilitation of children and adults with neurologic disorders; education/employment, ethical/legal issues; patient/client advocacy. Problem based format; laboratory.</td>
<td>5</td>
<td>PH_THR 8390</td>
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<tr>
<td>PH_THR 8945</td>
<td>Clinical Education IV</td>
<td>A continuation of supervised clinical education with supervision from a licensed physical therapist that has at least one year of experience. This course is a continuation of 7945 with advancing expectations of student physical therapist performance. Graded on S/U basis only.</td>
<td>7</td>
<td>Successful completion of PH_THR 7945</td>
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<tr>
<td>PH_THR 8950</td>
<td>Clinical Education V</td>
<td>Full time supervised clinical education with supervision from a licensed physical therapist that has at least one year of experience. This course is a continuation of 8945 with advancing expectations of student physical therapist performance. Graded on S/U basis only.</td>
<td>6</td>
<td>Successful completion of PH_THR 8945</td>
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