

# Physical Therapy

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Chair, Department of Physical Therapy and  
Health Science

**The curriculum is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).**

## Mission

The mission of the Department of Physical Therapy and Health Science is to prepare undergraduate students to enter careers in the health care industry or to enter graduate education in health related fields, and to prepare graduate students as general practitioners in Physical Therapy.

## Vision

The Department of Physical Therapy and Health Science will strive to build a balanced environment of teaching, research, service, and practice, which will prepare students to live and work productively in a diverse and ever-changing society.

## Doctor of Physical Therapy

**The Doctor of Physical Therapy program began summer 2005.**

### Admission Requirements

In addition to meeting admission requirements for the Graduate School, requirements for entry into the Doctor of Physical Therapy (DPT) program include the following:

- Completion of a baccalaureate degree with a Health Science major from Bradley University with a "C" or higher in all required courses **OR**
- Completion of a baccalaureate degree with the following courses completed with a "C" or higher:
  1. Chemistry - 1 year chemistry sequence for science majors (eg. 6-8 semester hours) with laboratory experience
  2. Physics - 1 year physics sequence for science majors (eg. 6-8 semester hours) with laboratory experience
  3. Biology/Zoology - 6-8 semester hours with content that includes an introduction to cell biology, biochemistry, and genetics
  4. Anatomy - 3-4 semester hours of vertebrate, mammalian, human, or comparative anatomy that includes a laboratory experience
  5. Physiology - 3-4 semester hours of vertebrate, mammalian, or human physiology (a two-semester sequence of combined anatomy and physiology will meet the anatomy and physiology requirement)

6. Statistics - 3 semester hours of statistics

The following courses are highly recommended:

1. Kinesiology, biomechanics, or additional courses in human anatomy
2. Exercise physiology, pathophysiology, or additional courses in physiology
3. Upper division psychology and sociology courses
4. Medical Terminology

In addition, an applicant should have:

1. Minimum 3.0 grade point average in all mathematics and science courses taken.
2. Minimum 3.0 grade point average for all courses taken.
3. GRE verbal and quantitative minimum total of 1000.
4. TOEFL score of 600 or higher, TSE of 50 or higher, and TWE of 4.5 or higher for non-native English speaking applicants.
5. Skills in computer literacy, communication (written and verbal), medical terminology, and teaching.

Along with the application, students are expected to submit:

1. An essay to articulate the applicant's perception of the physical therapy profession and examples of professional conduct.
2. Expanded résumé of education, activities, and work experiences.

**Other Requirements**

In addition to the University's student health form requirement, and prior to enrollment in the first full-time physical therapy course that includes a clinical experience, each student must verify:

- professional liability insurance (renewable annually)
- immunity to rubeola (measles) by one of the following: - a rubeola (measles) immunization received in 1990 or later, **or** - written verification from a physician of having had the disease, **or** - birth date prior to 1957
- immunity to rubella (German measles) by one of the following: - written verification of having had the immunization, **or** - written verification rubella titer greater than 1:10
- written verification of immunity to Hepatitis B virus
- written verification of tuberculin test results (renewable annually)
- CPR certification (renewable annually)

Contact the Department for the most current requirements

Admission is competitive for a limited number of spaces in the class.

**Course of Study**

**Summer I**

PT 612 Functional Anatomy I (Five Weeks) .....	2 hrs.
PT 614 Gross Anatomy I (Five Weeks) .....	2 hrs.
PT 616 Research I (Five Weeks) .....	1 hr.
PT 622 Functional Anatomy II (Five Weeks) .....	2 hrs.
PT 624 Gross Anatomy II (Five Weeks) .....	2 hrs.
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	9 hrs.

**Fall I**

PT 630 Foundations of Physical Therapy .....	4 hrs.
PT 636 Musculoskeletal Physical Therapy I .....	4 hrs.
PT 640 Clinical Science I .....	3 hrs.
PT 646 Research II .....	2 hrs.
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	13 hrs.

**January Interim I**

PT 650 Clinical Education I .....	3 hrs.
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**Spring I**

PT 662 Neurological Physical Therapy I .....	4 hrs.
PT 666 Research III .....	3 hrs.
PT 670 Human Development Throughout the Lifespan .....	3 hrs.
PT 680 Clinical Science II .....	2 hrs.
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	12 hrs.

**Summer II**

PT 700 Musculoskeletal Physical Therapy II (8 Weeks) .....	4 hrs.
PT 710 Clinical Education II (5 Weeks) .....	8 hrs.
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	12 hrs.

**Fall II**

PT 710 Clinical Education II (Continuation - 3 Weeks)	
PT 716 Research IV (13 Weeks) .....	1 hr.
PT 720 Teaching and Learning Theory in PT (13 Weeks) .....	3 hrs.
PT 730 Neurological Physical Therapy II (13 Weeks) .....	4 hrs.
PT 740 Clinical Science III (13 Weeks) .....	2 hrs.
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	10 hrs.

**Spring II**

PT 750 Physical Therapy Administration and Management .....	4 hrs.
PT 766 Research V .....	1 hr.
PT 770 Applied Exercise Principles .....	3 hrs.
PT 780 Clinical Science IV (8 Weeks) .....	2 hrs.
PT 790 Cardiovascular/Pulmonary/Integumentary Physical Therapy (8 Weeks) .....	2 hrs.
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	12 hrs.

### Summer III

PT 800 Clinical Education III (8 Weeks) .....8 hrs.

### Fall III

PT 810 Health and Wellness .....3 hrs.

PT 820 Professional Issues in Physical Therapy .....3 hrs.

PT 830 Physical Therapy Differential Diagnosis .....4 hrs.

PT 840 Independent Study (Optional).....1-6 hrs.

10-16 hrs.

### Spring III

PT 850 Clinical Education IV (8 Weeks) .....8 hrs.

PT 860 Clinical Education V (8 Weeks) .....8 hrs.

16 hrs.

### Elective

PT 760 Independent Study ..... (1-6 hrs.)

**Total required 105 hrs.**

## Course Descriptions

**PT 612 Functional Anatomy I 2 hrs.**

A lecture and laboratory study of human movement and applied kinesiology along with the introduction of physical therapy techniques to assess components of human movement. Prerequisite: consent of department chair.

**PT 614 Gross Anatomy I 2 hrs.**

Cadaveric dissection and study of the musculoskeletal, vascular, and peripheral nervous systems of the extremities. Prerequisite: consent of the department chair.

**PT 616 Research I 1 hr.**

A seminar introducing students to critical analysis of research with special emphasis on levels of evidence and evidence-based practice. Prerequisite: consent of department chair.

**PT 622 Functional Anatomy II 2 hrs.**

A lecture and laboratory study of human movement and applied kinesiology along with introduction of physical therapy techniques to assess components of human movement. Prerequisites: consent of department chair; PT 612.

**PT 624 Gross Anatomy II 2 hrs.**

Cadaveric dissection and study of the structures of the nervous, cardiovascular, pulmonary, gastrointestinal, genitourinary, and integumentary systems. Prerequisites: consent of department chair; PT 614.

**PT 630 Foundations of Physical Therapy 4 hrs.**

An introduction to clinical applications in physical therapy. Topics covered in this course include basic physical therapy examination procedures, professional documentation and communication, therapeutic exercise, physical agents and mechanical modalities, and patient care skills. Prerequisite: consent of department chair.

**PT 636 Musculoskeletal Physical Therapy I 4 hrs.**

The study and application of orthopaedic basic science in the examination, evaluation, and management of dysfunctions and disabilities of the appendicular skeleton. Prerequisite: consent of department chair.

**PT 640 Clinical Science I 3 hrs.**

The anatomical, biomechanical, physiological, and histological basis of the normal and pathological musculoskeletal system, along with specialized examination, assessment, and intervention strategies for the musculoskeletal system. Prerequisite: consent of department chair.

**PT 646 Research II 2 hrs.**

Research design, methods, and principles of basic statistical analysis; exploration of research topics with review of appropriate literature; and introduction to components of the research proposal. Prerequisite: consent of department chair; PT 616.

**PT 650 Clinical Education I 2 hrs.**

The first of five full-time supervised clinical experiences requiring utilization of communication skills and teaching interpersonal and evaluation skills. This course emphasizes the development of the student's interpersonal skills, professional behaviors, examination techniques, and intervention techniques learned previously in the classroom. Prerequisite: consent of department chair.

**PT 662 Neurological Physical Therapy I 4 hrs.**

The study and application of neurological basic science in the examination, evaluation, and management of dysfunctions and disabilities in physical therapy patient care. Prerequisite: consent of department chair.

**PT 666 Research III 3 hrs.**

Principles of intermediate statistical analysis and technical/research writing will be provided as the student finalizes methods for research project and prepares research proposal. Prerequisites: consent of department chair; PT 646.

**PT 670 Human Development Throughout the Lifespan 3 hrs.**

A multi-system analysis of the many facets of individual development from conception to death. Prerequisite: consent of department chair.

**PT 680 Clinical Science II 2 hrs.**

The anatomical, physiological, and histological basis of the normal and pathological neuromuscular system, and foundations of pharmacology as it relates to intervention strategies for patients with neuromuscular impairments. Prerequisites: consent of department chair; PT 640.

**PT 700 Musculoskeletal Physical Therapy II 4 hrs.**

The study and application of orthopaedic basic science in the examination, evaluation, and management of dysfunctions and disabilities of the axial skeleton. Prerequisites: consent of department chair; PT 636.

**PT 710 Clinical Education II 8 hrs.**

The second of five full-time supervised clinical experiences requiring utilization of communication skills and teaching interpersonal and evaluative skills. This course provides the opportunity to advance physical therapy procedures and to continue to develop professional socialization. Prerequisites: consent of department chair; PT 650.

**PT 716 Research IV 1 hr.**

Data collection, statistical analysis, data interpretation, and completion of the Results section of the written student research report. Prerequisites: consent of department chair; PT 666.

**PT 720 Teaching and Learning Theory in PT 3 hrs.**

Discussion and application of teaching and learning theories as related to the classroom and clinical setting, including student clinical education, staff inservice, and patient education. Prerequisite: consent of department chair.

**PT 730 Neurological Physical Therapy II 4 hrs.**

Applied neurological examination, evaluation, and intervention theories and strategies in physical therapy patient care. Prerequisites: consent of department chair; PT 662.

**PT 740 Clinical Science III 2 hrs.**

The management of a variety of disorders resulting in physical, emotional, and cognitive impairments and their physical therapy implications. Prerequisites: consent of department chair; PT 680.

**PT 750 Physical Therapy Administration and Management 4 hrs.**

Discussion and practical application of administrative and management issues relative to a variety of physical therapy patient care settings. Prerequisite: consent of department chair.

**PT 760 Independent Study 1-6 hrs.**

Individual study and investigations through selected readings, discussions, and/or written assignments. Repeatable up to 6 hours. Prerequisites: Physical Therapy major and/or permission of the Department of Physical Therapy/Health Science Chair.

**PT 766 Research V 1 hr.**

Completion of student research project and presentation of research findings to peers and internal and external constituents. Prerequisites: consent of department chair; PT 716.

**PT 770 Applied Exercise Principles 3 hrs.**

A course composed of lecture/discussion on the scientific basis and evidence supporting the use of various exercise techniques, as well as practical application and hands-on experience performing and completing these exercise techniques and applications correctly. Therapeutic, training, and performance enhancement approaches to exercise will be addressed. Prerequisite: consent of department chair.

**PT 780 Clinical Science IV 2 hrs.**

The anatomical, physiological, and histological basis of the normal and pathological cardiopulmonary, vascular, and integumentary systems. Normal and abnormal metabolic processes and their physical therapy implications. Prerequisites: consent of department chair; PT 740.

**PT 790 Cardiovascular, Pulmonary, and Integumentary Physical Therapy 2 hrs.**

Using the gas transport model as a foundation, this lecture and laboratory course provides the student with the skills to apply, analyze, and synthesize the basic science of cardiovascular, pulmonary, and integumentary physical therapy as it relates to disorders of cardiac, vascular, pulmonary, and integumentary systems. The focus of this course is examination and evaluation techniques and program planning. Prerequisite: consent of department chair.

**PT 800 Clinical Education III 8 hrs.**

The third of five full-time supervised clinical experiences offering the opportunity for continued development of clinical management of patients in one of a variety of clinical settings. This course allows for continued professional socialization and growth as well as further development of professional behaviors. Prerequisites: consent of department chair; PT 710.

**PT 810 Health and Wellness 3 hrs.**

Physical therapy implications of common health issues in a variety of physical therapy clients, and the role of screening and prevention in dealing with these issues. Prerequisite: consent of department chair.

**PT 820 Professional Issues in Physical Therapy 3 hrs.**

Presentation and discussion of pertinent issues in the field of physical therapy. Prerequisite: consent of department chair.

**PT 830 Physical Therapy Differential Diagnosis 4 hrs.**

The curriculum's capstone course that emphasizes the role of the physical therapist in managing the patient with multi-system dysfunctions. Prerequisite: consent of department chair.

**PT 840 Independent Study 1-6 hrs.**

An optional opportunity for the student to focus on a specific area of interest with faculty and/or clinician guidance.

**PT 850 Clinical Education IV 8 hrs.**

The fourth of five full-time, supervised clinical experiences or first half of the clinical education experience requiring utilization of advanced communication skills and teaching interpersonal and evaluative skills. Students have the opportunity to further develop clinical management of patients in a different clinical setting. Furthermore, continued professional socialization and growth as well as development of professional behaviors are expected. Prerequisites: consent of department chair; PT 800.

**PT 860 Clinical Education V**

**8 hrs.**

The last of five full-time, supervised clinical experiences or second half of the final clinical education experience requiring utilization of advanced communication skills and teaching interpersonal and evaluative skills. Students have the opportunity to further develop clinical management of patients in a different clinical setting. Furthermore, continued professional socialization and growth as well as continued development of professional behaviors are expected. Prerequisites: consent of department chair; PT 850.