

Pathway to Physical Therapist

What does a physical therapist do? How's the job outlook?

Physical therapists help injured or ill people improve movement and manage pain. They are often an important part of preventive care, rehabilitation, and treatment for patients with chronic conditions, illnesses, or injuries.



Employment of physical therapists is projected to grow 21 percent from 2020 to 2030, much faster than the average for all occupations. Demand for physical therapy will come in part from the large number of aging baby boomers, who are staying more active later in life than their counterparts of previous generations. Older people are more likely to experience heart attacks, strokes, and mobility-related injuries that require physical therapy for rehabilitation. In addition, a number of chronic conditions, such as diabetes and obesity, have become more prevalent in recent years. More physical therapists will be needed to help these patients maintain their mobility and manage the effects of chronic conditions. The annual mean wage for physical therapists in the Denver Metro area is approximately \$87,970. *

*U.S. Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Physical Therapists, on the Internet at <https://www.bls.gov/ooh/healthcare/physical-therapists.htm>

How do I become a physical therapist?

Physical therapists need a Doctor of Physical Therapy (DPT) degree from a program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). DPT programs typically last 3 to 4 years.

Physical therapy programs typically require a bachelor's degree, which may be in biology, healthcare or recreation and fitness fields and prerequisite courses such as anatomy, chemistry, and physics. Most DPT programs require candidates to apply through the Physical Therapist Centralized Application Service (PTCAS). Physical therapists may apply to a clinical residency program after graduation. Residencies typically last about 1 year and provide additional training and experience in specialty areas of care.

All states require physical therapists to be licensed, which includes passing the National Physical Therapy Examination administered by the Federation of State Boards of Physical Therapy. Other requirements vary by state.

DPT programs in Colorado can currently be found at two institutions: University of Colorado Anschutz Medical Campus (UC) and Regis University. For more information on the admissions process for each of these programs, please refer to the following websites.

- University of Colorado Anschutz Medical Campus- <https://medschool.cuanschutz.edu/physical-therapy-program>
- Regis University- <https://www.regis.edu/academics/majors-and-programs/graduate/physical-therapy-dpt>

Biology Faculty Advisor who can guide you for this path are:

Dr. Jeff Simpson

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Course prerequisites required for those interested in pursuing physical therapy at UC or Regis* include:

General Biology I with lab – BIO 1080/1090

General Chemistry I and II with lab – CHE 1800/1801 and CHE 1810/1811

- **Pre-req for Gen Chem I includes College Algebra:** MTH 1108-MTH 1109 or MTH 1110 or MTH 1111/1101 with a grade of “C-” or better

Advanced Human Cadaver Anatomy* — BIO 3330

OR

Comparative Vertebrate Anatomy — BIO 3220

- OR 8 semester hours (one-year sequence) of a combined anatomy and physiology [Human Anatomy & Physiology I & II – BIO 2310 and BIO 2320; upper division preferred for CU]

Advanced Human Physiology* — BIO 3320

OR

Animal Physiology — BIO 3360

- OR 8 semester hours (one-year sequence) of a combined Human Anatomy & Physiology I & II– BIO 2310 and BIO 2320; 2 semesters (upper division preferred for CU)

College Physics—PHY 2010/2030 and PHY 2020/2040

(*Regis specifies **General Physics**—PHY 2311/2321 and PHY 2331/2341)

Psychology—Any of the following: Abnormal (PSY 3620), Child (PSY 3250), Developmental (PSY 2210), Brain & Behavior (PSY 2120), Growth & Dev., or Life Span Dev.: (2 semesters at CU)

Introduction to Statistics – MTH 1210

Composing Arguments – ENG 1010

Highly Recommended for Regis

- Biomechanics/Kinesiology
- Exercise Physiology
- Speech Communication
- Neuroscience
- Research Methods/Advanced Statistics
- Motor Learning

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Elective Biology courses: Biology courses from 2000, 3000, and 4000 must be completed to bring the total of biology courses approved for the major to 40 credits. *At least 21 of these Biology credits must be from the 3000 or 4000 courses of the Department of Biology.*

Recommended Elective Courses from which to Choose:

- BIO 2310 – Anatomy & Physiology
- BIO 2320 – Anatomy & Physiology II
- BIO 3050 - Cell Biology
- BIO 3320 – Advanced Human Physiology
- BIO 3210 - Histology
- BIO 3350 - Immunology
- BIO 3351 – Immunology Lab
- BIO 3330- Advanced Human Cadaver Anatomy

Total Credit Hours in Biology (minimum of 40) _____

Upper Division Biology Credit Hours (minimum of 21) _____

B.S. Non-Bio Course Requirements:

CHE 1800-4 Gen Chemistry I _____

CHE 1801-1 Gen Chemistry I Lab _____

CHE 1810-4 Gen Chemistry II _____

CHE 1811-1 Gen Chemistry II Lab _____

CHOOSE YOUR PATH:

CHE 3100-4 Organic Chemistry I _____

CHE 3120-1 Organic Chemistry I Lab _____

AND

CHE 3110- 3 Organic Chemistry II _____

~OR~

ºCHE 3090- 4 Survey of Organic Chem _____

CHE 3120-1 Organic Chemistry I Lab _____

AND

ºCHE 4310-4 Biochemistry _____

º **Note on CHE 3090 – Survey of Organic Chemistry** - this class is no longer being offered

º **Note on CHE 4310 – Biochemistry** – requires completion of both Organic Chemistry I and II

B.A. Non-Bio Courses Requirements:

*CHE 1100-4 Principles of Chem _____

CHE 2100-4 Intro to Org/Biochem _____

~OR~

CHE 1800-4 Gen Chemistry I _____

*CHE 1801-1 Gen Chemistry I Lab _____

CHE 1810-4 Gen Chemistry II _____

CHE 1811-1 Gen Chemistry II Lab _____

*To use CHE 1100 or 1800 for the Natural and Physical Sciences requirement, students must take the corresponding lab (CHE 1150 or CHE 1801, respectively).

Math Requirement:

Two Semesters of Math: _____

One Semester of Math: _____

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Math Requirement (2 semesters)

Choose from the following math courses:

MTH 1108-1109 (Stretch College Algebra) *, MTH 1110 (College Algebra), MTH 1111 and MTH 1101 (College Algebra with lab), MTH 1112 (College Algebra through Modeling), MTH 1115/1116 (College Algebra through Modeling with Lab), MTH 1120 (Trigonometry), MTH 1210 (Intro to Statistics), MTH 1410 (Calculus I)**

MTH 1108-1109 is a Stretch Course and only counts as ONE of the required math courses for the BIO BS.

Students planning to take Calculus must take MTH 1108-1109, MTH 1110, or MTH 1111

Physics Requirement (Specific to Physical Therapy)

PHY 2010/2030 – College Physics I and College Physics I Lab

AND

PHY 2020/2040 – College Physics II and College Physics II Lab

(*Regis specifies General Physics—PHY 2311/2321 and PHY 2331/2341)

Psychology Requirement (Specific to Physical Therapy)

PSY 3620– Abnormal Psychology (Preferred)

OR

PSY 3250– Child Psychology (Preferred)

OR

PSY 2210– Psychology of Human Development **OR**

PSY 2120– Brain & Behavior **OR**

Growth and Development **OR**

Life Span Development

General Studies Requirements (33 cr. total), please visit

<http://www.msudenver.edu/advising/facultystaff/generalstudiesrequirements/>

Total Credits (Minimum 120) _____

Total Upper Division Credits (Minimum 40 TOTAL) _____

What is your Minor? (required) _____