

University of Indianapolis – Shaheen College of Arts & Sciences

2024-2025 Curriculum Guide for Chemistry Majors (CHEM) pursuing Pre-Physical Therapy Preparation
Bachelor of Science or Bachelor of Arts

The Pre-Physical Therapy Program

As a student interested in a career as a physical therapy, you must complete a number of courses required for admission to physical therapy graduate school. These courses will also help you prepare for your graduate classes in physical therapy as well as the GRE general test, a test that you will take as part of the admissions process for many, but not all, schools of physical therapy. These courses, based on those required for admission to the DPT program of the University of Indianapolis Krannert School of Physical Therapy, are listed on the reverse side of this sheet. For students interested in attending or applying to schools other than the University of Indianapolis, be aware that schools of physical therapy set their own lists of prerequisite courses and requirements for admission. Each school to which a student is intending to apply should be consulted for specific course requirements.

Advising

You will be assigned a faculty member in chemistry to serve as your faculty advisor. S/he will advise you regarding major, pre-physical therapy, and general education core requirements.

Criteria for Admission to Physical Therapy School

Admission to physical therapy school is competitive. An applicant must have strong recommendations from undergraduate faculty members responsible for courses in the pre-physical therapy program. In addition, you should arrange to get some experience working, interning, or shadowing in and around physical therapy practices so that you have an understanding of the working conditions in physical therapy careers. Your success in achieving a high grade point average and receiving high recommendations from faculty members will be determined by your total college experience.

Application for Physical Therapy School

Application for physical therapy school must be made in the fall prior to the year you wish to be accepted. If required, the GRE should be taken prior to the time of application. Application to physical therapy school can be made as soon as prerequisite courses are or will be completed. However, in order to receive a degree from the University of Indianapolis upon early admission to the graduate program, a student must complete all requirements for admission to the graduate program, complete at least 90 undergraduate hours, complete all requirements of the core curriculum, make satisfactory progress in the chemistry major, and successfully complete the first year of the graduate program.

Courses Required for the Pre-Physical Therapy Chemistry Major

This list of courses is based on those required for successful completion of a chemistry major after the first year of physical therapy school. In addition to these courses, a student must complete the general education core (BS or BA) and all required courses for physical therapy school admissions (see the respective curriculum guides). For students interested in attending or applying to schools other than the University of Indianapolis, be aware that schools of physical therapy set their own lists of prerequisite courses and requirements for admission. Each school to which a student is intending to apply should be consulted for specific course requirements.

Note: Some courses at UIndy may have prerequisites that are not required by the core, the major, or by PT admissions. The University of Indianapolis undergraduate catalog should be consulted. Be sure to declare the Pre-Physical Therapy concentration and continue to meet with your advisor in the Chemistry Department.

This is a suggested pattern for CHEM/PPT students. Consult the Curriculum Guide for Chemistry Majors and the Curriculum Guide for Prerequisites for Admission to the University of Indianapolis Graduate Physical Therapy Program for specific information.

Freshman Year

Semester I

- **CHEM 150** General Chemistry I ** (3 credits) and **CHEM 151** General Chemistry Lab I ** (1 credit)
- **SOC/ANTH ELEC** SOC or ANTH elective that focuses on human interaction (3 credits)

Semester II

- **CHEM 160** General Chemistry II ** (3 credits) and **CHEM 161** General Chemistry Lab II ** (1 credit)
- **BIOL 165** Introduction to Cell Biology (4 credits) *
- **MATH 190** Calculus I (4 credits) *

Sophomore Year

Semester I

- **CHEM 250** Organic Chemistry I ** (3 credits) and **CHEM 251** Organic Chemistry Lab I ** (2 credits)
- **BIOL ELEC** **Biology class numbered 155, 159 or any course above 210** (4 credits) *
- **MATH 191** Calculus II (4 credits) *
- **SOC/ANTH ELEC** SOC or ANTH elective that focuses on human interaction (3 credits)

Semester II

- **CHEM 260** Organic Chemistry II** (3 credits) and **CHEM 261** Organic Chemistry Lab II** (2 credits)
- **PHYS 150** General Physics I* (4 credits) **or**
- **PHYS 153** General Physics/Calculus Based I* (4 credits)

Junior Year

Semester I

- **CHEM ELEC** Any chemistry course numbered 230 or higher ** (3-5 credits)
- **BIOL 330** Biomedical Physiology * (4 credits)
- **PHYS 160** General Physics II * (4 credits) **or**
- **PHYS 163** General Physics/Calculus Based II * (4 credits)

Semester II

- **CHEM ELEC** Any chemistry course numbered 230 or higher ** (3-5 credits)
- **BIOL 305** Human Functional Anatomy * (4 credits)
- **MATH 245** Statistics for the Sciences * (4) preferred or **MATH 220** Elementary Statistics* (4 credits)
- **CHEM 301** Chemistry Seminar ** # (1 credit)

Senior Year†

This year must only be completed if a student does NOT enter Physical Therapy School after his/her junior year.

- **CHEM ELEC†** Any chemistry course numbered 230 or higher ** (3-5 credits)
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Other Requirements

These must only be completed if a student does NOT enter Physical Therapy School after his/her junior year.

Requirements for a Bachelor of Science degree:

- **CHEM 380** Physical Chemistry II ** (unless taken as a CHEM ELEC in Jr year—3 cr—BS only) and
- **CHEM 400** Instrumental Methods ** (unless taken as a CHEM ELEC in Jr year—4 cr—BS only) **or**
- **CHEM 280** Intermediate Inorganic Chemistry** (unless taken as a CHEM ELEC in Jr year—4 cr—BS only)

Requirements for a Bachelor of Arts degree:

- **LANG 201** Competency through the 201-level of a modern language (4 cr)
- **CHEM ELEC** Completion of 7 hours of Chemistry Electives at the 230-level or higher **

* Requires a grade of C- or above

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Note: This program may require attendance in both day and extended programs classes.

†If a student enrolls in a 4th year of the chemistry major, the chemistry courses must include CHEM 310 (5) and CHEM 370/375 (5) and CHEM ELEC (7) to earn a BA, or CHEM 310 (5), CHEM 370/375 (5), CHEM 380 (3), and CHEM 280 (4) or CHEM400 (4) to earn a BS.

#This course may substitute for a capstone experience, exclusively for those Chemistry majors proceeding to health-related professional or graduate schools after 3 years, AND with permission of the Chemistry Department chair.

A student may complete more than one major as long as each major has at least 24 discrete hours. Please see the Academic Catalog for additional details.

The Chemistry major requires a minimum of 72 hours.

The above courses allow the student to have a major in Chemistry. Students are encouraged to use courses outside of Chemistry to build a minor or second major area. Consult curriculum guides for minors or majors of interest for details.

The Bachelor of Arts Degree requires competency in a modern language through 201-level (additional 4 credits). See the General Education Core Guide requirements for details.

Consult the PPT Curriculum Guide for more information and other suggested courses.

This pattern allows students to apply for admission to the University of Indianapolis Krannert School of Physical Therapy following completion of the complete PPT curriculum (consult the curriculum guide), the complete Core Curriculum of the University (consult the SCAS Core Curriculum guide), at least 90 credit hours, and with maintained satisfactory progress in the Chemistry Major. This is roughly equivalent to completing this pattern through the Junior year.

NOTE: The Bachelor's Degree requires a minimum of 120 hours.

This program may require attendance in both day and extended programs classes. See the General Education Core Guide for additional course requirements.

A student may complete more than one major as long as each major has at least 24 discrete hours. Please see the Academic Catalog for additional details.

REMEMBER: If you have any questions about the Chemistry/Pre-PT Major and its requirements, contact a faculty advisor from the Chemistry Department (Dr. David Styers-Barnett; 317-788-2061; Lilly Science Hall, Room 332D), or your academic advisor. Courses and requirements sometimes change, so keep in contact with your advisor.