University of Indianapolis – Shaheen College of Arts & Sciences
2024-2025 Curriculum Guide for Chemistry Majors (CHEM) pursuing Pre-Pharmacy Preparation
Bachelor of Science (BS) or Bachelor of Arts (BA)

This is a suggested pattern for CHEM/PPHM students. Consult the Curriculum Guide for Chemistry Majors and the Curriculum Guide for the Pre-Pharmacy Program for specific information.

Freshman Year - Semester I
- **CHEM 150** General Chemistry I** (3) **and CHEM 151** General Chemistry Lab I ** (1)
- **ECON 111** Macroeconomics (3 credits) **

Freshman Year - Semester II
- **CHEM 160** General Chemistry II** (3) **and CHEM 161** General Chemistry Lab II ** (1)
- **MATH 190** Calculus and Analytic Geometry I * (4)
- **COMM 100** Public Speaking (3)
- **BIOL 165** Introduction to Cell Biology * (4)

Sophomore Year - Semester I
- **CHEM 250** Organic Chemistry I** (3) **and CHEM 251** Organic Chemistry Lab I ** (2)
- **MATH 191** Calculus and Analytic Geometry II * (4)
- **BIOL 225** Introduction to Genetics (4 credits)
- **SOC 101** Principles of Sociology (3) **or**
- **SOC 103** Social Problems (3)

Sophomore Year - Semester II
- **CHEM 260** Organic Chemistry II** (3) **and CHEM 261** Organic Chemistry Lab II ** (2)
- **PHYS 153** General Physics I, Calculus Based* (4) †
- **BIOL 220** General Microbiology (4 credits) *
- **MATH 245** Statistics for the Sciences (4)

Junior Year - Semester I
- **PHYS 163** General Physics II, Calculus Based * (4) †
- **CHEM 320** Biochemistry I ** (3) (BA) **OR BIOL 320 (**BS)
- **BIOL 305** Human Functional Anatomy (4 credits)
- **BIOL 370** Immunology (3 credits)

Junior Year - Semester II
- **CHEM 301** Chemistry Seminar ** # (1) SII
- **CHEM 395** Biochemistry II** (3) (BA) **or BIOL 395** (BS)
- **BIOL 330** Biomedical Physiology (4 credits)

Junior Year
- Biomedical Sciences Elective (4)
- **CHEM 280/400** Intermediate Inorganic Chemistry or Instrumental Methods (BS)
  OR Chemistry Elective (3/4) (BA)

Senior Year§ - Semester I
- **CHEM 310** Analytical Chemistry ** (5) SI
- **CHEM 370** Physical Chemistry I ** (3) SI

Senior Year§ - Semester II
- **CHEM 375** Physical Chemistry Laboratory ** (2)
- **CHEM 380** Physical Chemistry II** (3) (BS) **OR** Chemistry Elective (3/4) (BA)

†**PHYS153** and **PHYS163** are recommended. PHYS150 and PHYS160 also may be used to satisfy the major requirement. Chemistry Electives must total 7 credit hours for BA students.

Other Recommended Courses

- **BIOL 300** Internship in Life/Health Sciences (1-4 credits)
- **PSY 315** Health Psychology (3)

* Requires a grade of C- or above
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Other Requirements—These must only be completed if a student does NOT enter Pharmacy 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** Instructional 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—BA only)

Notes: 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) 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 professional or Graduate school 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.

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 Pre-Pharmacy Curriculum Guide for more information and other suggested courses.

This pattern allows students to apply for admission to the Purdue University College of Pharmacy following completion of the complete Pre-Pharmacy 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.
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/PPHM Major and its requirements, contact a faculty advisor from the Chemistry Department (Dr. David Styers-Barnett, 788-2061; Lilly Science Hall, Room 332D), or your academic advisor. Courses and requirements sometimes change, so keep in contact with your advisor.