# CHEMISTRY MAJOR

## Requirements

Requirements for the Chemistry major are as follows:

### Course | Title | Credits
--- | --- | ---
**Freshman Year**
CHEM 1321 & CHEM 1311 | General Chemistry I and General Chemistry I Recitation | 4
CHEM 1331 | General Chemistry Lab I | 2
CHEM 1322 & CHEM 1312 | General Chemistry II and General Chemistry II Recitation | 4
MATH 1206 | Calculus I | 1
MATH 1207 | Calculus II | 4
BISC 1403 & BISC 1413 | Introductory Biology I and Introductory Biology Lab I | 2
BISC 1404 & BISC 1414 | Introductory Biology II and Introductory Biology Lab II | 2

### Sophomore Year
CHEM 2521 & CHEM 2511 | Organic Chemistry I and Organic Chemistry I Recitation | 4
CHEM 2531 & CHEM 2541 | Organic Chemistry Lab I for Chem Majors and Organic Chemistry Lab I | 2
CHEM 2522 & CHEM 2512 | Organic Chemistry II and Organic Chemistry II Recitation | 4
CHEM 2532 & CHEM 2542 | Organic Chemistry Lab II for Chem Majors and Organic Chemistry Lab II | 2
PHYS 1701 & PHYS 1511 | Physics I and Physics I Lab | 4
PHYS 1702 & PHYS 1512 | Physics II and Physics II Lab | 4
MATH 2004 | Multivariable Calculus I | 3
MATH 2005 | Multivariable Calculus II | 3
CISC 1600 & CISC 1610 | Computer Science I and Computer Science I Lab | 4

### Junior Year
CHEM 3621 & CHEM 3631 | Physical Chemistry I and Physical Chemistry Lab I | 6
CHEM 3622 & CHEM 3632 | Physical Chemistry II and Physical Chemistry Lab II | 6
CHEM 3721 | Quantitative Analysis | 4
CHEM 3722 | Instrumental Analysis | 4
CHEM 4030 | Chemistry Seminar | 4

### Senior Year
CHEM 4221 & CHEM 4231 | Biochemistry I and Biochemistry Lab I | 4
CHEM 4222 | Biochemistry II | 5
CHEM 4223 | Inorganic Chemistry | 3
MATH 3002 | Differential Equations | 4
CHEM 4030 | Chemistry Seminar | 6

1. MATH 12AB Transfer Calculus AB or MATH 12BC Transfer Calculus BC (transfer credit from AP Calculus) also fulfills the Calculus I requirement.
2. Students in Pre-Health or having a strong interest in Biochemistry should take BISC 1403 Introductory Biology I and BISC 1404 Introductory Biology II, along with labs.
3. Students pursuing ACS certification should take CHEM 4432 Inorganic Chemistry Lab and CHEM 4231 Biochemistry Lab I (required); it is recommended that students also take MATH 2004 Multivariable Calculus I and MATH 2005 Multivariable Calculus II.
4. Students in the 3-2 Engineering program should take CISC 1600 Computer Science I and CISC 1610 Computer Science I Lab.
5. CHEM 4222 Biochemistry II is not required, but it is recommended for Pre-Health students.
6. Prior to 2017, students were required to take CHEM 3031, CHEM 3032, CHEM 4031, and CHEM 4032 across four semesters in junior and senior year. These course numbers instead have been replaced with the equivalent CHEM 4030 Chemistry Seminar, which is taken four times.

## Additional information

It is recommended that all Chemistry majors take CHEM 3141 Methods of Chemical Research to fulfill their EP3 requirement.

MATH 2004 Multivariable Calculus I and MATH 3002 Differential Equations are suggested for students considering graduate studies in physical chemistry.

Interested students should consult with the director of the 3-2 engineering program for information regarding major courses to be completed in their sophomore and junior years.

Students are required to consult with the department before registering for CHEM 4030 Chemistry Seminar. Detailed instructions can be found on the department’s website. Majors meet with their academic advisor within the department to have their course schedules approved each semester.

For all courses, C- is the minimum accepted grade to be able to apply a course towards the major.

## Availability

The major in chemistry is available at Fordham College at Rose Hill. Students in Fordham School of Professional and Continuing Studies may major in chemistry only if their schedules are sufficiently flexible to permit them to take day courses at the Rose Hill campus.

**Fordham College at Rose Hill students:** The requirements above are in addition to those of the Core Curriculum.

**Professional and Continuing Studies students:** The requirements above are in addition to those of the PCS Core Curriculum.

Updated: 04-24-2020