CHEMISTRY MAJOR

Requirements

Requirements for the Chemistry major are as follows:

Course | Title | Credits
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First Year | | |
CHEM 1321 | General Chemistry I | 4
& CHEM 1311 | and General Chemistry I Recitation | 2
CHEM 1331 | General Chemistry Lab I | 2
CHEM 1322 | General Chemistry II | 4
& CHEM 1312 | and General Chemistry II Recitation | 2
CHEM 1332 | General Chemistry Lab II | 2
MATH 1206 | Calculus I 1 | 4
MATH 1207 | Calculus II | 4
BISC 1403 | Introductory Biology I | 5
& BISC 1413 | and Introductory Biology Lab I 2 | 5
BISC 1404 | Introductory Biology II | 5
& BISC 1414 | and Introductory Biology Lab II 2 | 5
Sophomore Year | | |
CHEM 2521 | Organic Chemistry I | 4
& CHEM 2511 | and Organic Chemistry I Recitation | 2
CHEM 2531 | Organic Chemistry Lab I for Chem Majors | 2
or CHEM 2541 | Organic Chemistry Lab I | 2
CHEM 2522 | Organic Chemistry II | 4
& CHEM 2512 | and Organic Chemistry II Recitation | 2
CHEM 2532 | Organic Chemistry Lab II for Chem Majors | 2
or CHEM 2542 | Organic Chemistry Lab II | 2
PHYS 1701 | Physics I | 4
& PHYS 1511 | and Physics I Lab | 4
PHYS 1702 | Physics II | 4
& PHYS 1512 | and Physics II Lab | 4
MATH 2004 | Multivariable Calculus I 3 | 4
MATH 2005 | Multivariable Calculus II 3 | 4
CISC 1600 | Computer Science I | 4
& CISC 1610 | and Computer Science I Lab 4 | 4
Junior Year | | |
CHEM 3621 | Physical Chemistry I | 6
& CHEM 3631 | and Physical Chemistry Lab I | 6
CHEM 3622 | Physical Chemistry II | 6
& CHEM 3632 | and Physical Chemistry Lab II | 6
CHEM 3721 | Quantitative Analysis | 4
CHEM 3722 | Instrumental Analysis | 4
CHEM 4030 | Chemistry Seminar 5 | 0
Senior Year | | |
CHEM 4221 | Biochemistry I | 4
& CHEM 4231 | and Biochemistry Lab I | 5
CHEM 4222 | Biochemistry II 5 | 3
CHEM 4422 | Inorganic Chemistry | 3
MATH 3002 | Differential Equations | 4
CHEM 4030 | Chemistry Seminar 5 | 0

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. Students who take CISC 1600 during Fordham's Summer Session do not take CISC 1610, as the summer lecture and lab are offered in a combined format.
5 CHEM 4222 Biochemistry II is not required, but it is recommended for Pre-Health students.
6 Four semesters of CHEM 4030 Chemistry Seminar are required, generally taken during the junior and senior years. Additional elective research courses may be taken throughout the four-year curriculum. Contact the Associate Chair for details.

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 adviser within the department to have their course schedules approved each semester.

For all CHEM foundation courses (General Chemistry through Organic Chemistry) a minimum grade of C- in both lecture and lab is required in order to enroll in the next course in the sequence.

Availability

The major in Chemistry is available at Fordham College at Rose Hill. Students in Fordham's School of Professional and Continuing Studies may major in chemistry only if they receive the approval of their advising dean and/or department, and 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 and any additional electives that may be required to earn a minimum of 124 credits.

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

Updated: 08-06-2021
Professional and Continuing Studies students: The requirements above are in addition to those of the PCS Core Curriculum and any additional electives that may be required to earn a minimum of 124 credits.