

B.S. IN CHEMISTRY

| Code | Title | Credits |
|--|--|---------|
| Major Requirements/Chemistry (36 credits) ¹ | | |
| CE-111 | General Chemistry I | 3 |
| CE-111L | General Chemistry Laboratory I | 1 |
| CE-112 | General Chemistry II | 3 |
| CE-112L | General Chemistry Laboratory II | 1 |
| CE-221 | Analytical Chemistry I Quantitative Analysis | 3 |
| CE-221L | Analytical Chemistry I Laboratory Quantitative Analysis | 1 |
| CE-241 | Organic Chemistry I | 3 |
| CE-241L | Organic Chemistry Laboratory I | 2 |
| CE-242 | Organic Chemistry II | 3 |
| CE-242L | Organic Chemistry Laboratory II | 2 |
| CE-311 | Chemical Literature | 1 |
| CE-322 | Analytical Chemistry II Instrumental Analysis | 3 |
| CE-322L | Analytical Chemistry II Laboratory Instrumental Analysis | 2 |
| CE-341 | Physical Chemistry I | 3 |
| CE-341L | Physical Chemistry I Laboratory | 1 |
| <i>(Chemistry courses satisfy Natural Science (NS) in General Education)</i> | | |
| CE-410 | Seminar | 1 |
| <i>(Satisfies Reasoned Oral Discourse (RD) in General Education)</i> | | |
| Select 3 credits from Chemistry 400+ level (except CE-499) | | 3 |
| Interdisciplinary Requirements (18 credits) | | |
| MA-125 | Calculus with Analytic Geometry I | 4 |
| MA-126 | Calculus with Analytic Geometry II | 4 |
| <i>(MA-125 or MA-126 satisfy Mathematics in General Education)</i> | | |
| PH-211 | General Physics with Calculus I | 4 |
| PH-211L | General Physics with Calculus Laboratory I | 1 |
| PH-212 | General Physics with Calculus II | 4 |
| PH-212L | General Physics with Calculus Laboratory II | 1 |
| Free Electives (33 credits) ² | | |
| Select up to 33 credits of free electives ² | | 33 |
| General Education Requirements (33 credits) ³ | | |
| Complete 33 credits as outlined on the General Education table. ³ | | 33 |
| Total Credits | | 120 |

¹ Students desiring certification by the ACS should enroll in the CE.ACS program and should consult with the department chair and academic advisor.

² Please consult with your advisor regarding the required number of free electives that must be completed.

³ The General Education curriculum requires the completion of 45 credits. However, students may be able to share credits from within their major or interdisciplinary requirements. Please consult with your advisor to determine which General Education (<http://catalog.monmouth.edu/undergraduate-catalog/academic-programs-support-services-regulations/general-education-requirements>) courses must be completed.

Notes

- 58 credits must be completed at the 200 level or higher.

B.S. in Chemistry Sequence Chart

| First Year | | |
|--|---|---------|
| Fall | Credits Spring | Credits |
| CE-111 General Chemistry I | 3 CE-112 General Chemistry II | 3 |
| CE-111L General Chemistry Laboratory I | 1 CE-112L General Chemistry Laboratory II | 1 |
| EN-101 College Composition I | 3 EN-102 College Composition II | 3 |
| IT-102 Information Technology for Scientists | 3 MA-126 Calculus with Analytic Geometry II | 4 |
| MA-125 Calculus with Analytic Geometry I | 4 Gen*Ed Social Science | 3 |
| Semester Credits | 14 Semester Credits | 14 |
| Second Year | | |
| Fall | Credits Spring | Credits |
| CE-241 Organic Chemistry I | 3 CE-242 Organic Chemistry II | 3 |
| CE-241L Organic Chemistry Laboratory I | 2 CE-242L Organic Chemistry Laboratory II | 2 |
| PH-211 General Physics with Calculus I | 4 CE-221 Analytical Chemistry I Quantitative Analysis | 3 |
| PH-211L General Physics with Calculus Laboratory I | 1 CE-221L Analytical Chemistry I Laboratory Quantitative Analysis | 1 |
| Gen*Ed Historical Perspectives | 3 PH-212 General Physics with Calculus II | 4 |
| free electives | 3 PH-212L General Physics with Calculus Laboratory II | 1 |
| Semester Credits | 16 Semester Credits | 14 |
| Third Year | | |
| Fall | Credits Spring | Credits |
| CE-311 Chemical Literature | 1 CE-410 Seminar | 1 |
| CE-341 Physical Chemistry I | 3 Gen*Ed Cultural Diversity | 3 |
| CE-341L Physical Chemistry I Laboratory | 1 Gen*Ed Literature | 3 |
| Gen*Ed Historical or Social Science Persp. | 3 400 level Chemistry Elective or Free Elective | 3 |
| Gen*Ed Aesthetics & Creativity | 3 Free Electives | 6 |
| Free Electives | 6 | |
| Semester Credits | 17 Semester Credits | 16 |
| Fourth Year | | |
| Fall | Credits Spring | Credits |
| CE-322 Analytical Chemistry II Instrumental Analysis | 3 400 level Chemistry Elective | 3 |
| CE-322L Analytical Chemistry II Laboratory Instrumental Analysis | 2 Gen*Ed Interdisc. Perspect. | 3 |
| 400 level Chemistry Elective or Free Elective | 3 Free Electives | 9 |
| Gen*Ed Global Understanding | 3 | |
| Free Electives | 3 | |
| Semester Credits | 14 Semester Credits | 15 |
| Total Credits 120 | | |