



## Sample Four-Year Plan for a BS in Chemistry

	Fall Semester	Spring Semester
<b>Freshman Year</b>	Chemistry 115 & 117 – 5 cr Biology 111 – 4 cr Math 130 – 3 cr English 101 – 3 cr  (15 credits)	Chemistry 116 & 118 – 5 cr Math 140 – 4 cr English 102 – 3 cr First Year Seminar – 4 cr  (16 credits)
<b>Sophomore Year</b>	Chemistry 251 & 255 – 5 cr Math 141 – 4 cr Intermediate Seminar – 3 cr General Education – 3 cr  (15 credits)	Chemistry 252 & 256 – 5 cr Physics 113 & 181 – 6 cr General Education – 3 cr General Education – 3 cr  (17 credits)
<b>Junior Year †</b>	* Chemistry 311 & 313 – 6 cr Physics 114 & 182 – 6 cr Biochemistry 383 – 3 cr  (15 credits)	* Chemistry 312 & 314 – 6 cr General Education – 3 cr General Education – 3 cr Chemistry Lab Elective – 3 cr  (15 credits)
<b>Senior Year</b>	* Chemistry 369 & 379 – 6 cr * Chemistry 498 – 2 cr Chemistry Elective – 3 or 4 cr General Education – 3 cr  (14-15 credits)	* Chemistry 370 & 371 – 6 cr * Chemistry 499 – 2 cr Elective – 3 cr Elective – 3 cr  (14 credits)

\* - Class may be offered only once a year.

† - The Writing Proficiency Requirement (WPR) is recommended to be completed at 60-75 credits. Please consult the WPR website:  
[www.umb.edu/academics/vpass/undergraduate\\_studies/writing\\_proficiency](http://www.umb.edu/academics/vpass/undergraduate_studies/writing_proficiency)

- This document is a suggested plan for the major. Students must meet with their faculty advisor each semester and refer to their degree audit to ensure adequate progress toward their degree.
- Students are strongly advised to select general education courses which fulfill multiple requirements.
- See reverse side for more detailed information

## Chemistry BS Course Number Guide

This course guide provides the detailed names of courses listed by number on the four-year plans. It is not a comprehensive list of courses for your major, or a substitute for an advising appointment! Consult with your faculty advisor when choosing courses, and check your degree audit regularly.

Biochemistry 383 – Biochemistry I Lecture

Biology 111 – General Biology I Lecture & Laboratory

Chemistry 115 & 117 – Chemical Principles I Lecture & Laboratory

Chemistry 116 & 117 – Chemical Principles II Lecture & Laboratory

Chemistry 251 & 255 – Organic Chemistry I Lecture & Laboratory

Chemistry 252 & 256 – Organic Chemistry II Lecture & Laboratory

Chemistry 311 & 313 – Analytical Chemistry Lecture & Laboratory

Chemistry 312 & 314 – Physical Chemistry Lecture & Laboratory

Chemistry 369 & 379 – Chemical Structure Lecture & Laboratory

Chemistry 370 & 371 – Inorganic Chemistry Lecture & Laboratory

Chemistry 498 – Senior Thesis I

Chemistry 499 – Senior Thesis II

Math 130 – Precalculus

Math 140 – Calculus I

Math 141 – Calculus II

Physics 113 & 181 - Fundamentals of Physics Lecture & Laboratory

Physics 114 & 182 – Fundamentals of Physics II Lecture & Laboratory

Chemistry pass/fail rule: No chemistry or biochemistry courses taken pass/fail may be applied to the major. No more than one mathematics or physics course taken pass/fail may be applied to the major (although some courses have grade pre-requisites).

### Additional resources:

[www.umb.edu/academics/vpass/undergraduate\\_studies/general\\_education\\_requirements](http://www.umb.edu/academics/vpass/undergraduate_studies/general_education_requirements)

[www.umb.edu/academics/course\\_catalog/search](http://www.umb.edu/academics/course_catalog/search)

[www.umb.edu/academics/csm/student\\_success\\_center/degree\\_planning/math\\_placement](http://www.umb.edu/academics/csm/student_success_center/degree_planning/math_placement)