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

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<th>Fall Semester</th>
<th>Spring Semester</th>
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| **Freshman Year** | Chemistry 115 & 117 – 5 cr  
Biology 111 – 4 cr  
Math 130 – 3 cr  
English 101 – 3 cr | Chemistry 116 & 118 – 5 cr  
Biology 112 – 4 cr  
Math 145 (or 140) – 4 cr  
First Year Seminar – 4 cr |
|         | (15 credits)                                                                  | (17 credits)                                                                            |
| **Sophomore Year** | Biology 212 – 3 cr  
Chemistry 251 & 255 – 5 cr  
Math 146 (or 141) – 4 cr  
English 102 – 3 cr | Biology 254 – 3 cr  
Chemistry 252 & 256 – 5 cr  
Physics 113 & 181 – 6 cr  
Intermediate Seminar – 3 cr |
|         | (15 credits)                                                                  | (17 credits)                                                                            |
| **Junior Year †** | * Biochemistry 383 & 385 – 6 cr  
Physics 114 & 182 – 6 cr  
General Education – 3 cr | * Biochemistry 384 & 386 – 6 cr  
Elective – 3 cr  
General Education – 3 cr  
General Education – 3 cr |
|         | (15 credits)                                                                  | (15 credits)                                                                            |
| **Senior Year** | ** Biochemistry 491 – 3 cr  
* Chemistry 311 & 313 – 6 cr  
General Education – 3 cr  
Elective – 3 cr | * Biology 372 – 3 cr  
** Biochemistry 492 – 3 cr  
* Chemistry 312 – 4 cr  
Elective – 3 cr  
General Education – 3 cr |
|         | (15 credits)                                                                  | (16 credits)                                                                            |

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* - 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)
** - Required only for students wishing to graduate with honors; all others can take an elective.

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- 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.
Biochemistry 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 & 385 – Biochemistry I Lecture & Laboratory
- Biochemistry 384 & 386 – Biochemistry II Lecture & Laboratory
- Biochemistry 491 – Directed Research in Biochemistry I
- Biochemistry 492 – Directed Research in Biochemistry II
- Biology 111 – General Biology I Lecture & Laboratory
- Biology 112 – General Biology II Lecture & Laboratory
- Biology 212 – Cell Biology Lecture
- Biology 254 – Genetics Lecture
- Biology 372 – Molecular Biology Lecture
- Chemistry 115 & 117 – Chemical Principles I Lecture & Laboratory
- Chemistry 116 & 118 – 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 and Laboratory
- Chemistry 312 – Physical Chemistry
- Math 130 – Pre-Calculus
- Math 140 – Calculus I
- Math 141 – Calculus II
- Math 145 – Calculus I for Life and Environmental Sciences
- Math 146 – Calculus II for Life and Environmental Sciences
- Physics 113 & 181 – Fundamentals of Physics I Lecture & Laboratory
- Physics 114 & 182 – Fundamentals of Physics II Lecture & Laboratory

Additional resources:
www.umb.edu/academics/vpass/undergraduate_studies/general_education_requirements
www.umb.edu/academics/course_catalog/search
www.umb.edu/academics/csm/student_success_center/degree_planning/math_placement