

Sample Four-Year Plan for a BS in Biology

	Fall Semester	Spring Semester
Freshman Year	Biology 111 – 4 cr Chemistry 115 & 117 – 5 cr Math 130 – 3 cr First Year Seminar – 4 cr (16 credits)	Biology 112 – 4 cr Chemistry 116 & 118 – 5 cr Math 135 (3 cr) or 140 (4 cr) or 145 (4 cr) English 101 – 3 cr (15-16 credits)
Sophomore Year	Biology 210 or 252 (4 cr) or 290 (3 cr) GenEd (3 cr) or *Chemistry 251 & 255 (5 cr) English 102 – 3 cr GenEd (3 cr) or **Math 141 or 146 (4 cr) (12-16 credits)	Biology 210 or 252 (4 cr) or 290 (3 cr) GenEd (3 cr) or *Chemistry 252 & 256 (5 cr) Intermediate Seminar – 3 cr General Education – 3 cr (12-15 credits)
Junior Year †	Biology 210 or 252 (4 cr) or 290 (3 cr) Physics 107&171 (4 cr) or 113&181 (6 cr) ^ Upper Level Biol Elective – 3 or 4 cr General Education – 3 cr (13-17 credits)	Physics 108&172 (4 cr) or 114&182 (6 cr) ^ Upper Level Biol Elective – 3 or 4 cr ^ Upper Level Biol Elective – 3 or 4 cr General Education – 3 cr (13-17 credits)
Senior Year	^ Upper Level Biol Elective – 3 or 4 cr Elective – 3 cr Elective – 3 cr General Education – 3 cr General Education – 3 cr (15-16 credits)	^ Upper Level Biol Elective – 3 or 4 cr Elective – 3 cr Elective – 3 cr Elective – 3 cr General Education – 3 cr (15-16 credits)

* - **Organic Chemistry** is not required for the major, but is required for most students on the Pre-Medical and Allied health track and serves as a pre-requisite for some upper level courses. Each semester of Organic Chem with lab can count as 4 credits (of the 20) of upper-level Biology and 1 credit (of the 4) of upper-level lab credits toward your Biology requirements (see ^ below).

** - **Calculus II** is not required to earn a degree in Biology but recommended depending on a student's future plans. Math 140 or 145 can lead to Calc II.

^ - The Upper-Level Biology requirement is 20 credits of 300-level Biology courses, including 4 lab credits. BIOL 381 and 382 (Special Topics with lab) and Organic Chemistry will count toward this requirement. Consult with an advisor for details.

† - The Writing Proficiency Requirement (WPR) is recommended to be completed before 60 credits. Please consult the WPR website:

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.
- See reverse side for more detailed information

Biology 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.

Biology 111 – General Biology I (Lecture & Laboratory)

Biology 112 – General Biology II (Lecture & Laboratory)

Biology 210 – Cell Biology (Lecture & Laboratory)

Biology 252 – Genetics (Lecture & Laboratory)

Biology 290 – Population Biology (Lecture only)

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)

Math 130 - Precalculus

Math 135 – Survey of Calculus

Math 140 & 141 – Calculus I and II

Math 145 & 146 – Calculus I and II for Life and Environmental Sciences

Physics 107 & 171– College Physics I Lecture & Laboratory

Physics 108 & 172 – College Physics II (Lecture & Laboratory)

Physics 113 & 181- Fundamentals of Physics I (Lecture & Laboratory)

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

Biology Pass/Fail rule: No more than ONE course required for the Biology Major can be taken Pass/Fail.

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