



**North Central Michigan College**

**2021/22**

## **Western Michigan University Biology Curriculum Guide**

### **Pre-Biology requirements:**

- The following courses are the prerequisites for biology, biomedical sciences, and biology-secondary education (high school level) majors.
- This major is a good choice for students going into entry-level employment in the field of biology, biology graduate programs, or professional schools such as physician assistant, physical therapy, medical, dental, and veterinary schools.
- A **minimum of 15 credits of biology** must be earned at WMU for the major.
- Only departmental courses in which a grade of “C” or better is obtained may be counted toward a major or minor in Biological Sciences.

#### **WMU Courses**

#### **NCMC Courses**

CHEM 1100|1110

CEM 121

CHEM 1120|1130

CEM 122

CHEM 3750|3760

CEM 231

PHYS 1130|1140

PHY 210

PHYS 1150|1160

PHY 211

MATH 1220 or 2000

MATH 150

STAT 3660

STAT 200

### **General education requirements:**

- Please see the [Western Essential Studies \(WES\) transfer guide](#) .
- All students graduating from the College of Arts & Sciences must meet the world language proficiency by completing two semesters (6-8 hours) of the same foreign language or American Sign Language or passing WMU’s proficiency by exam. Please contact the College of Arts & Sciences Undergraduate Advising Office at (269) 387-4366 with questions. Neither the MACRAO Agreement nor the MTA satisfy this requirement.
- If the student’s first language is not English, then the student is exempt from this requirement. Determination of eligibility for this exemption is based on whether the student was required to take the TOEFL test for admission and can be verified through the WMU departments of Spanish or World Languages and Literatures.

**Important notes:**

- The chemistry, physics, and mathematics courses are called “cognate” requirements for biology department majors and may not be waived.
- The physics and chemistry courses have a minimum prerequisite of successful completion of advanced algebra (**MATH 120** at NCMC).
- For questions about WES or biology major requirements please contact the WMU College of Arts & Sciences Biology advisor at the email address given below.
- Prior to enrolling in WMU courses, students should consult the biology advisor listed below.

**Approved by:**

Megan Larson - College of Arts & Sciences Academic Advisor for Biological Sciences  
Department of Biological Sciences  
[wmich.edu/biology/advising](http://wmich.edu/biology/advising)  
[bios-advising@wmich.edu](mailto:bios-advising@wmich.edu)  
(269) 387-5617