Western Michigan University Secondary Education - Biology Curriculum Guide

General Information:

- A Secondary Provisional Certificate is valid for teaching your subject areas (major and minor) in grades 6-12;
- Students must choose at least one teachable major and one teachable minor. For a list of teachable majors and minors see the content areas in secondary education on the WMU Secondary Education website;
- Students are encouraged to meet with a WMU education advisor as early as possible prior to transfer for assistance with their choice of majors and minors;
- Course sequencing at WMU in Secondary Education requires at least two years to complete, and a minimum of 60 credits of the overall degree must be completed at WMU;
- Students who choose Biology as their teaching major or minor will follow requirements in the Biology department for the major or minor. General education and teacher preparation requirements are determined by the College of Education and Human Development (CEHD);
- All applicants intending to pursue a teaching program at WMU will be admitted into “pre-education” at the time of admission to WMU. After completion of the pre-professional requirements, pre-education students must apply to the upper level as indicated below;
- For students who started at NCMC before Fall 2014, and will transfer directly to WMU, your requirements may be different. Please check with the CEHD advising office (contact information is listed below);
- At the end of their professional education program, students must complete a minimum of one semester of Internship (Student Teaching).

Pre-Professional Requirements for Secondary Education CAS Majors:
After satisfying the following requirements students should submit the Professional Education Admission application for admission to upper professional level education courses:

- Completion of at least 60 credit hours;
- Completion of all WMU Intellectual Skills Development classes IF REQUIRED (e.g. MATH 1090, LS 1040, ENG 1000);
- Completion of an approved college level writing class;
- Completion of ES 2000 or an approved course with a grade of CB (2.5) or better;
- Achievement of a cumulative grade point average (GPA) of 3.00 or better; **
- Achievement of passing scores on the Michigan Test for Teacher Certification (MTTC) - Professional Readiness Exam (PRE) (#96), or passing by an alternate method. Please contact the CEHD advising office if you have questions;
- Criminal background check and Judgment of Sentence or Register of Action for any convictions;
Submission of a formal application to the Office of Admissions and Advising, Western Michigan University, Kalamazoo, MI 49008-5275; 

Please visit the WMU College of Education website for additional information.

** Any student with a cumulative GPA between 2.75 and 2.99 who has met all of the other requirements may apply for provisional admission to the professional education program. Provisional admission decisions will be made by secondary education faculty and admission is not guaranteed.

Courses that can be taken at NCMC:

<table>
<thead>
<tr>
<th>WMU courses</th>
<th>NCMC courses</th>
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<tbody>
<tr>
<td>BIOS 2320</td>
<td>BIO 226</td>
</tr>
<tr>
<td>BIOS 2400</td>
<td>BIO 236</td>
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<tr>
<td>CHEM 1100 and 1110</td>
<td>CEM 121*</td>
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<tr>
<td>CHEM 1120 and 1130</td>
<td>CEM 122*</td>
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<tr>
<td>CHEM 3750 and 3760</td>
<td>CEM 231**</td>
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<tr>
<td>CHEM 3770 and 3780</td>
<td>CEM 232**</td>
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<tr>
<td>PHYS 1130 and 1140</td>
<td>PHY 210</td>
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<tr>
<td>PHYS 1150 and 1160</td>
<td>PHY 211</td>
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<tr>
<td>MATH 1220</td>
<td>MATH 150*</td>
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<tr>
<td>(students minoring in Biology may take MATH 140 instead of 150)</td>
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<tr>
<td>STAT 3660</td>
<td>STAT 200</td>
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</tbody>
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*The courses with the single asterisks are required for students who want to MINOR in Biology. The minor requires 27 credits in Biology plus cognate courses in Chemistry and Mathematics.

** VERY IMPORTANT:** The WMU Biology department has ruled that at least 12 biology credits MUST BE TAKEN AT WMU for the MINOR and 15 credits for the MAJOR. All/any cognates may come from another institution.

** For students who are not minoring in Chemistry, the organic requirement is only CHEM 3700 and 3710 (a lab), at WMU. The two organic chemistry courses at NCMC will cover the requirement, but you may also wait until you get to WMU and take just the one organic chemistry course and lab, instead of two.

General education requirements:

- Please refer to the [WMU general education transfer guide](#) and talk with your WMU College of Education and Human Development (CEHD) advisor.

Contact information:

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College of Education and Human Development (CEHD)
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