WMU Curriculum Guide for Freshwater Science and Sustainability

Program description and notes:

- WMU and NMC partnered to create a seamless transition from NMC's Freshwater Studies program to WMU's Freshwater Science and Sustainability.
- For questions about the Freshwater Studies program at NMC
  - Hans Van Sumeren, Director – NMC Great Lakes Water Studies Institute (231) 995–1793 or hvansumeren@nmc.edu
  - Constanza Hazelwood, Education and Outreach Coordinator – NMC Great Lakes Water Studies Institute, (231) 995–1722 or chazelwood@nmc.edu.
- The program provides the broad interdisciplinary training that will enable graduates to help solve problems involving the quality, availability, and use of fresh water.
- The program prepares students for positions in the field such as: watershed managers, freshwater quality analysts, sustainability coordinators, environmental and resource managers, and/or for graduate school.
- The Freshwater Science and Sustainability program requires 77 credit hours of coursework.
- All WMU degrees require at least 122 credit hours for graduation, including general education requirements. At least 60 of those credits must come from a four-year institution.
- No minor is required for the program.
- There will be a significant fieldwork component to several courses in the program and some summer work may be required for timely completion of program.
- Given the interdisciplinary nature of the program, it is very important that students work regularly with program advisors (see contact information below).
- 18 credit hours of approved elective are required. Content-appropriate courses taken at NMC could apply; please see your WMU advisor for possible approval.

Courses that may be taken at NMC:

<table>
<thead>
<tr>
<th>WMU Courses</th>
<th>NMC Equivalent Courses</th>
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<tbody>
<tr>
<td>BIOS 1610</td>
<td>BIO 115</td>
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<tr>
<td>BIOS 1620</td>
<td>BIO 116</td>
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<tr>
<td>CHEM 1100</td>
<td>CHM 150</td>
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<td>CHEM 1110</td>
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<td>ENVS 5400</td>
<td>WSI 230</td>
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<td>GEOG 2250</td>
<td>ENV 117</td>
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<tr>
<td>GEOS 3220</td>
<td>ENV 131</td>
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MTH 111 (=MATH 1110 @ WMU) or ALEKS placement of 61 or better will be required to take CHEM 1100|1110 at WMU.

General Education Requirements:

- 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 any questions. Neither the MACRAO Agreement nor the MTA satisfy the world language 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 Language and Literatures.
- Students receiving the Michigan Transfer Agreement (MTA) from NMC will have only the world language proficiency and two, upper level, WMU Essential Studies courses remaining upon transfer.
- For those not obtaining the MTA, please find information about WMU Essential Studies (WES) requirements on this link.

Contact information:

Jacquelyn Bizzell
College of Arts & Sciences
https://wmich.edu/arts-sciences/advising
(269) 387-4366