M.S. IN BIOLOGY

College of the Sciences and Mathematics

Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 510</td>
<td>Graduate Seminar in Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 511</td>
<td>Experimental Design and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BIO 520</td>
<td>Topics and Research Methods in Cellular, Microbial, and Molecular Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 521</td>
<td>Topics and Research Methods in Ecology, Evolution, and Organismal Biology</td>
<td>3</td>
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</tbody>
</table>

Electives

Select 15 credits of electives from the following options:
- Any other 500-level biology course.
- Up to six credits of 400-level biology courses, where no 500-level course is available.
- Up to six credits of graduate course work from another department or university, pending prior departmental approval.
- Electives may not be repeats of courses unless the course topic changed significantly.

Research and Capstone

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 591</td>
<td>Directed Research in Biology</td>
<td>3</td>
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Total Minimum Credits Required

<table>
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<tr>
<td>Directed Research</td>
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<tr>
<td>Thesis Defense</td>
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<td>Total Minimum Credits</td>
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1. To complete BIO 591 successfully, the student must present the results of the project in an open seminar. In addition, the student must pass a written comprehensive examination prepared by the student's advisory committee. Students who fail this examination will not receive a grade for this capstone course.

M.S. in Biology

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Electives

Select nine credits of electives from the following options:
- Any other 500-level biology course, with the exception of BIO 591.
- Up to six credits of 400-level biology courses, where no 500-level course is available.
- Up to six credits of graduate course work from another department or university, pending prior departmental approval.
- Electives may not be repeats of courses unless the course topic changed significantly.

Research and Capstone

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<tr>
<td>BIO 608</td>
<td>Thesis Proposal</td>
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<tr>
<td>BIO 609</td>
<td>Thesis Research</td>
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Sample Course Plan

To track their individual degree progress, students are advised to access their Degree Progress Report (DPR) via my WCU and consult their Graduate Coordinator. For more information, visit wcupa.edu/DegreeProgressReport (http://wcupa.edu/DegreeProgressReport/).

The following is a suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

<table>
<thead>
<tr>
<th>Course Year One</th>
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<tr>
<td>Fall</td>
<td>BIO 510 Graduate Seminar in Biology</td>
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<td>BIO 520 Topics and Research Methods in Cellular, Microbial, and Molecular Biology</td>
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### M.S. in Biology (Thesis Option)

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