Master of Biological Science

Abbreviation of Award: MBiolSc
Degree Type: Coursework or Coursework and Dissertation
UWA Course Code: 72520
Fee Type: CSP (Commonwealth Supported Places)
CRICOS Code: 074948B
Course Advice: Please contact the Science Student Office (www.science.uwa.edu.au/students/science-student-office)

About this Course

Western Australia is a marine and terrestrial biodiversity hotspot. Up to 80 per cent of the region's marine fish and invertebrates are unique to the area. This makes WA the ideal living laboratory for studies in biological science.

This course gives students an understanding of the molecular evolution, structure, physiology, reproduction, behaviour and ecology of organisms, and the skills to apply this knowledge to the management of natural systems and the species they support.

Admissions

To be considered for admission to this course an applicant must have a bachelor’s degree from this University with a relevant major, or equivalent as recognised by the Faculty.

Course Duration

Minimum: 1.5 years full-time (or equivalent part-time) comprising 72 credit points of taught units and 24 points of admission credit.*
Maximum: 2 years full-time (or equivalent part-time) comprising 96 points of taught units**

*Students with a bachelor’s degree or major in a cognate area of study will be granted up to 24 points credit in recognition of prior learning.
**Students requiring more than 72 credit points will receive course advice specifying additional units.

Example Cognate Majors: Conservation Biology, Marine Science, Zoology that align with the chosen specialisation in the course, or equivalent as recognised by the faculty.

Knowledge

Graduates of the Master of Biological Science will:

1. Have advanced skills and knowledge in the study of biological systems, using field, experimental laboratory and statistical methodologies.
2. Have advanced knowledge of the molecular evolution, structure, physiology, reproduction, behaviour and community ecology of organisms relevant to their area of specialisation.
3. Have the ability to integrate advanced knowledge of species biology and ecology to assess their vulnerability to environmental change
4. Be broad thinkers who can critically assess advanced research in their discipline and integrate this into practical solutions for preserving biodiversity.
5. Have the ability to communicate advanced level knowledge in biological science in a variety of forms (written reports, critical reviews, orally etc.) and to a variety of audiences (academics, industry practitioners, the general public).

Course Structure

Coursework ONLY

<table>
<thead>
<tr>
<th>Core Units</th>
<th>BIOL4402 Conservation Genetics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BIOL4409 Ecological Field Methods</td>
</tr>
<tr>
<td></td>
<td>SCIE4402 Data Management and Analysis in the Natural Sciences</td>
</tr>
<tr>
<td>Specialisation Core Units</td>
<td>Take FOUR specialisation core units</td>
</tr>
<tr>
<td>Specialisation Option Units</td>
<td>Take FIVE specialisation option units; at least FOUR of these must be at Level 5</td>
</tr>
</tbody>
</table>
Coursework AND Dissertation

Research Project Rule

Students who request approval to undertake a research project as an optional unit in this course must have:

- a weighted average mark of at least 65% in at least 24 points of the level three units completed towards a cognate major in their UWA undergraduate degree;
- or equivalent as recognised by the Faculty;
- or have a weighted average mark of at least 65% in at least 24 points of level 4/5 units completed within the course; AND
- a supervisor, approved by the Faculty, must have confirmed his/her willingness and availability to supervise the research project.

Core Units

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<tbody>
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<td>BIOL4409</td>
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Specialisation Core Units

Take FOUR specialisation core units

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<tbody>
<tr>
<td>SCIE5590</td>
<td>Literature Review and Research Proposal</td>
</tr>
<tr>
<td>SCIE5511</td>
<td>Science Research Project Part 1</td>
</tr>
<tr>
<td>SCIE5512</td>
<td>Science Research Project Part 2</td>
</tr>
<tr>
<td>SCIE5513</td>
<td>Science Research Project Part 3</td>
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Research Project

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Specialisation Option Units

Take ONE specialisation option unit

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<tbody>
<tr>
<td>BIOL5502</td>
<td>Animal Resource Management</td>
</tr>
<tr>
<td>BIOL4403</td>
<td>Plant Ecophysiology</td>
</tr>
<tr>
<td>BIOL5505</td>
<td>Marine Neuroecology and Behaviour</td>
</tr>
<tr>
<td>BIOL5501</td>
<td>Plant Diversity in WA: Evolution and Conservation</td>
</tr>
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Specialisation Core Unit: Conservation Biology

Take four units from:

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<tr>
<td>ENVT4411</td>
<td>Geographic Information Systems Applications</td>
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<tr>
<td>ENVT5512</td>
<td>Ecosystem Biogeochemistry</td>
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Specialisation Core Unit: Marine Biology

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<tr>
<td>BIOL4408</td>
<td>Marine Ecology</td>
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<tr>
<td>ENVT5502</td>
<td>Marine and Coastal Planning and Management</td>
</tr>
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<tr>
<td>BIOL4407</td>
<td>Marine Conservation and Fisheries Management</td>
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<tr>
<td>SCIE5505</td>
<td>Global Change and the Marine Environment</td>
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Specialisation Core Unit: Zoology

Take ALL four units:

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<tbody>
<tr>
<td>BIOL4404</td>
<td>Experimental Zoology</td>
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<tr>
<td>ANIM5502</td>
<td>Evolutionary Biology</td>
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<td>BIOL4406</td>
<td>Vertebrate Zoology</td>
</tr>
<tr>
<td>ANIM4401</td>
<td>Vertebrate Development</td>
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Specialisation Options

Coursework ONLY; students take FIVE specialisation option units (30 pts); at least FOUR of these must be at Level 5

Coursework AND Dissertation; students take ONE specialisation option unit (6 pts) AND SCIE5590 AND SCIE5511-13

Specialisation Options: Conservation Biology

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<td>Animal Resource Management</td>
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<tr>
<td>BIOL5503</td>
<td>Sampling Techniques in wildlife research</td>
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<tr>
<td>ENVT5510</td>
<td>Soil Dynamics</td>
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<td>SCIE4403</td>
<td>The Conduct, Ethics and Communication of Science</td>
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<td>ECON5511</td>
<td>Climate, Energy and Water Economics</td>
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