# Honours Program - BioSciences

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| **Year and Campus:** | 2016 |
| **Coordinator:** | A/Prof Andrew Pask |
| **Contact:** | **a.pask@unimelb.edu.au (mailto:a.pask@unimelb.edu.au)** |
| **Overview:** | Honours in Biosciences is a one-year program designed to extend students' knowledge and skills through a supervised research project together with advanced coursework in biosciences disciplines.<br>Admission requirements<br>In addition to satisfying the Bachelor of Science (Degree with Honours) or the Bachelor of Biomedicine (Degree with Honours) entry requirements, students are required to have completed **stream specific prerequisite (http://science.unimelb.edu.au/available-stream-requirements%20)** .<br>This program provides students with the opportunity to design and conduct, under supervision, independent research. Specific research projects will depend upon the availability of appropriate expertise, but may address a broad spectrum of BioScience issues. Students will take responsibility for a research project, including the design of rigorous sampling programs; field and/or laboratory experiments; collection, appropriate statistical analysis, and interpretation of data; and providing oral and written presentations of the results. Students will assimilate and critically evaluate new knowledge within a scientific paradigm, and communicate that knowledge to others. Students should also develop skills in managing a scientific research project, writing scientific reports, providing and responding to peer reviews, and making an oral presentation. Students also complete two coursework subjects, which provide specific training in experimental design, statistical analysis, critical review of research papers and presentation of oral reports. |
| **Learning Outcomes:** | The objectives of this subject are to provide students with skills in:<br># conducting research in biosciences disciplines;<br># designing rigorous experimental and sampling programs;<br># taking responsibility for managing a research project;<br># preparing and giving an oral and written presentation of the results;<br># expressing persuasive intellectual, scientific arguments;<br># assimilating and critically evaluating existing knowledge within a scientific paradigm. |
| **Structure & Available Subjects:** | **Research**<br>Students must complete 75 points of research.<br>**Coursework**<br>Students must complete 25 points of coursework. |
| **Subject Options:** | **Research Component**<br>Students enrol in a total of 75 points of research project across the duration of the Honours program. This is achieved by enrolling in the following subject across two consecutive semesters to achieve a total 75 credit points. |

| Subject | Study Period Commencement: | Credit Points: |
|---|---|---|
| BIOL40001 BioSciences Honours Research Project | Semester 1, Semester 2 | 25 |
| BIOL40002 BioSciences Honours Research Project | Semester 1, Semester 2 | 37.5 |
| BIOL40003 BioSciences Honours Research Project | Semester 1, Semester 2 | 50 |

**Coursework Component**

25 points of coursework including one of:

| Subject | Study Period Commencement: | Credit Points: |
|---|---|---|
| BIOL90002 Biometry | June | 12.5 |
| MAST90044 Thinking and Reasoning with Data | Semester 1 | 12.5 |

Plus 12.5 point honours or postgraduate level advanced coursework, relevant to the research project, chosen from the list below in consultation with supervisor(s) of the research project, and approved by the Honours coordinator.

| Subject | Study Period Commencement: | Credit Points: |
|---|---|---|
| BIOL90001 Microscopy for Biological Sciences | Semester 1 | 12.5 |
| BOTA90005 Flora of Victoria | February | 12.5 |
| BTCH90005 Advanced Molecular Biology Techniques | Semester 2 | 12.5 |
| EVSC90017 Global Environmental Change | Semester 1 | 12.5 |
| GENE90018 Advanced Topics in Genetics B | Not offered 2016 | 12.5 |
| GENE90020 Current Topics In Developmental Genetics | Semester 1 | 12.5 |
| PHYS90008 Advanced Seminars in Physiology | Semester 1 | 12.5 |
| SCIE90002 Metabolomics and Proteomics | Semester 2 | 12.5 |
| ZOOL90007 Graduate Seminar in Ecology & Evolution | Semester 1 | 12.5 |

One Level 3 subject, for which credit has not already been given, may be chosen if the core knowledge is relevant to the research project (subject to the approval of the Honours coordinator).

**Related Course(s):**

Bachelor of Biomedicine (Degree with Honours)
Bachelor of Science (Degree with Honours)