

MC-SCIBOT Master of Science (Botany)

Year and Campus:	2013 - Parkville
CRICOS Code:	062189B
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Graduate/Postgraduate
Duration & Credit Points:	200 credit points taken over 24 months full time. This course is available as full or part time.
Coordinator:	Associate Professor Ed Newbigin Email: edwardjn@unimelb.edu.au
Contact:	Melbourne Graduate School of Science Faculty of Science The University of Melbourne Tel: + 61 3 8344 6128 Fax: +61 3 8344 3351 Web: http://graduate.science.unimelb.edu.au (http://graduate.science.unimelb.edu.au/)
Course Overview:	<p>The Master of Science (Botany) is a coursework masters degree incorporating a substantial research project.</p> <p>The Master of Science gives students the opportunity to undertake a substantive research project in a field of choice as well as a broad range of coursework subjects including a professional skills component, as a pathway to PhD study or to the workforce.</p> <p>Botany is the study of plants, which are our major source of renewable energy. Although all life on earth depends upon plants, our knowledge of their biology and of the interactions between plants and their environment is far from complete; yet this knowledge is crucial to Australia's agricultural, biotechnology, forestry and tourism industries, and to the development of a sustainable future.</p> <p>This degree provides students with essential skills and knowledge training and the opportunity to undertake a substantive research project in one of the discipline areas available within the School of Botany: environmental science, molecular biology and biotechnology, functional plant biology, marine botany and plant systematics and evolution. The Master of Science – Botany offers students the flexibility to develop their own interests by selecting from a wide range of coursework subjects, including core science study and a professional skills module that provides high-level training in the areas of business, communications and science application. The Master of Science – Botany is a pathway to PhD study or to the workforce.</p>
Objectives:	<p>The objectives of this course are to provide students with:</p> <ul style="list-style-type: none"> # high-level experience in, and ability to conduct independent research in a field of plant science; # ability in reviewing and assessing scientific literature; # ability in hypothesis testing, design of laboratory and/or field experiments; # ability in advanced scientific techniques, data analysis and interpretation; # written and oral presentations;and # potential to proceed to the PhD degree.
Course Structure & Available Subjects:	<p>Students must complete 200 points including:</p> <ul style="list-style-type: none"> # Discipline Component subjects (between 50 and 87.5 points); # Professional Skills subjects (25 - 37.5 points); # Research Project (125 points or 75 points). Students will complete a 125 point major research project OR a 75 point minor research project.
Subject Options:	<p>Discipline Component</p> <p>Students will enrol in four to seven subjects available through the Master of Science programs. They may also take subjects from the following:</p>

- Master of Biotechnology - <https://handbook.unimelb.edu.au/view/2012/MC-SCIBIT> (../view/2012/MC-SCIBIT)

- Master of Environment (Environmental Science)

- Master of Forest Ecosystem Science - <https://handbook.unimelb.edu.au/view/2012/MC-FRSTES> (../view/2012/MC-FRSTES)

Subjects will be selected in consultation with the research supervisor and approved by the School's Course Coordinator. Subjects will be selected both to broaden the student's training and to enhance the skills relevant to the chosen research area. Where appropriate and with approval, a student may complete up to two 300 level subjects.

Professional Skills

Depending on the choice of a Major or Minor Research Project in Botany, students will take two or three of the following subjects:

Subject	Study Period Commencement:	Credit Points:
MAST90044 Thinking and Reasoning with Data	Not offered 2013	12.50
MAST90045 Systems Modelling and Simulation	Not offered 2013	12.50
SCIE90005 Ethics and Responsibility in Science	Not offered 2013	12.50
BUSA90403 Business Tools: Money People & Processes	Semester 2	12.50
BUSA90471 Business Tools: The Market Environment	Semester 1	12.50
SCIE90012 Science Communication	Not offered 2013	12.50
MAST90007 Statistics for Research Workers	Not offered 2013	12.50
SCIE90013 Communication for Research Scientists	Semester 1	12.50

Research Project

Research Project

The research project provides an opportunity for independent research under supervision in the School of Botany, in the areas of cellular, molecular and functional plant sciences, plant systematics and evolution, marine botany and environmental science.

The major thesis allows a student to focus on a substantial project while the minor thesis allows a student to maximise coursework training. Both are pathways to the PhD. Each project will be designed in consultation with a supervisor(s) and approved by the School's Masters Program Coordinator.

Major Research Project (125 points)

The project will be taken over four consecutive semesters and will begin on the Monday of semester of entry (semesters 1 or 2) (indicative for 2013: March 4 and July 29) and continue for up to 88 weeks until the end of the fourth semester, minus recreation leave of between 4 and 8 weeks (22 weeks per semester over the four semesters). For how long and at what time within the enrolment the actual period of leave is to be taken needs to be negotiated with a student's supervisor.

The Research Project will be due for submission by the end of the formal examination period of the fourth semester of enrolment if an earlier date is not specified.

The assessment requirements below are applicable to the entire 125 point research project.

- # a research proposal of 1,000 words due in the first month of the first semester of research project enrolment (hurdle requirement);
- # a comprehensive literature review due at the end of year 1 (10%; 3,000 words);
- # an oral presentation (20 minutes) on research progress due at the end of year 1 (pass/fail);
- # a presentation based on the research findings (5%; 40 minutes) due after the full 125 points of research project enrolment;
- # a research thesis (85%; 17,000 - 22,000 words) due after the full 125 points of research project enrolment.
- # Students are expected to attend the School's general weekly seminar series held during semesters.

Students may enrol in a combination of research project subjects and coursework subjects over their two years of full-time study or over their four years of part-time study as long as once the Research Project is commenced (which may not be the first semester in the case of part-time course enrolments), the consecutive enrolment requirement is met and to ensure they have completed a total of 125 points for the major research project by the end of their course.

Subject	Study Period Commencement:	Credit Points:
BOTA90006 Botany Research Project Major	Not offered 2013	12.50
BOTA90008 Botany Research Project Major	Not offered 2013	25
BOTA90009 Botany Research Project Major	Not offered 2013	37.50
BOTA90010 Botany Research Project Major	Not offered 2013	50

Minor Research Project (75 points)

The project will be taken over three consecutive semesters and will begin on the Monday of the second semester of entry (semesters 1 or 2) (indicative for 2013: March 4 and July 29) and continue for up to 66 weeks until the end of the fourth semester, minus recreation leave of between 4 and 8 weeks (22 weeks per semester over the four semesters). For how long and at what time within the enrolment the actual period of leave is to be taken needs to be negotiated with a student's supervisor.

The Research Project will be due for submission by the end of the formal examination period of the fourth semester of enrolment if an earlier date is not specified.

The assessment requirements below are applicable to the entire 75 point research project:

- # a research proposal of 1,000 words due in the first month of the first semester of research project enrolment (hurdle requirement);
- # a comprehensive literature review due at the end of the first semester of research project enrolment (15%; 3,000 words);
- # presentation of a seminar based on the research findings (5%; 25 minutes) due after 75 points of research project enrolment;
- # a research thesis (80%; 10,000 - 12,000 words) due after 75 points of research project enrolment.
- # Students are expected to attend the School's general weekly seminar series held during semesters.

Subject to supervisor approval, students may enrol in a combination of research project subjects and coursework subjects over their two years of full-time study or over their four years of part-time study as long as once the Research Project is commenced (which may not be the second semester in the case of part-time course enrolments), the consecutive enrolment requirement is met and to ensure they have completed a total of 75 points for the minor research project by the end of their course.

Subject	Study Period Commencement:	Credit Points:
BOTA90014 Botany Research Project Minor	Not offered 2013	12.50
BOTA90013 Botany Research Project Minor	Semester 1	25
BOTA90012 Botany Research Project Minor	Semester 2	37.50
BOTA90011 Botany Research Project Minor	Not offered 2013	50

Entry Requirements:

An undergraduate degree with a major in any science discipline, with at least an H3 (65%) in the major, or equivalent.

Quotas may be applied and preference may be given to applicants with evidence of appropriate preparation or potential to undertake research. Entry is subject to the capacity of the department to provide adequate supervision in, and resources for, a research project appropriate to the interests and preparation of the individual student and may be subject to the agreement of a

	member of academic staff to supervise the project module. Selection is not automatic and, in particular, is subject to competition.
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Further Study:	The Master of Science offers a pathway to a PhD.
Graduate Attributes:	Graduates will: have the ability to demonstrate advanced independent critical enquiry, analysis and reflection; have a strong sense of intellectual integrity and the ethics of scholarship; have in-depth knowledge of their specialist discipline(s); reach a high level of achievement in writing, research or project activities, problem-solving and communication; be critical and creative thinkers, with an aptitude for continued self-directed learning; be able to examine critically, synthesise and evaluate knowledge across a broad range of disciplines; have a set of flexible and transferable skills for different types of employment; and be able to initiate and implement constructive change in their communities, including professions and workplaces.
Links to further information:	http://graduate.science.unimelb.edu.au/programs/msc/botany.php