K03-PA Master of Agricultural Science

Year and Campus:	2008
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Graduate/Postgraduate
Duration & Credit Points:	
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Course Overview:	The Master of Agricultural Science course provides a research-led national and international focused program directed at students who wish to build a professional career in a specialised area of the Agricultural Sciences. Graduates in the Master programme will possess attributes that will ensure they can either find employment in the public or private sectors related to a wide range of agricultural production, environmental, economics, bioresearch and service industries, and community organisations concerned with public good, or continue into further postgraduate programmes of study. On completion of the Master of Agricultural Science you will have gained a broad understanding of many of the issues underpinning the advances in food and fibre production within the Australian and International Agriculture sectors. This will be achieved through the completion of foundation subjects “Emerging Research Issues for Land Resources” and “Soil Fertility and Conservation”. You will also have completed at least one specialist subject in plant or animal science and have also undertaken a 25 point research project if appropriate, or you may have broadened your base knowledge through elective subjects. This includes subjects focused on animal and plant health Management of Plant and Animal Invasions and on advanced breeding capabilities Genetics and Animal Breeding and Advanced Plant Breeding and Improvement.
Objectives:	# to enable students to explore the interdisciplinary nature of agricultural crop, food and fibre production and markets at an advanced level # To provide students with a sound foundation in the scientific principles and analytical skills behind improved agricultural production systems and their sustainability, # to introduce students to advanced research topics and practical applications within the disciplines of agricultural science; # to develop competence in the design, conduct and analysis of experimental work; # to introduce students to industrial applications of agricultural science and the commercial outcomes; # to develop a critical understanding of environmental, economic, social and ethical factors related to plant and animal-derived food and fibre production in Australia and globally.
Course Structure & Available Subjects:	The Master of Agricultural Science (coursework) consists of 200 credit points of study at level 400 and above. Students may specialise during the course within the stream of 'plant science' by completting the three subjects (37.5 points) of each stream. It is possible for a student to gain specialist training in more than one stream area by completion of subjects as selective selections. The program comprises up to 16 coursework subjects (12.5 points each) and students may elect to undertake research project subjects of 25 or 50 points. Students may not obtain credit for more than 50 points of project. Students who are given advanced credit from an honours or postgraduate diploma in a cognate area, and who as part of that previous course conducted a project worth more or equal to 50 points, will not be permitted to conduct a project within the Masters program. Year 1 comprises four core subjects and four other subjects. The core subjects included three non-cognate subjects in semester 1 and one specialist cognate 'stream subject' in semester 2. Students may choose to undertake two or four elective subjects, dependant on whether they chose to complete Project A (25 points). Year 2 comprises a further four core subjects and four other subjects. tHe core subjects included two 'broadening subjects in agricultural science' and a futher two specialist cognate 'stream subjects'. Students may choose to undertake to or four elective subjects, dependant on whether they chose to complete Project B (50 points).

Once the requirements of a specialist degree have been satisfied (three subjects from one specialist stream), across-stream subject selection will be encouraged, particularly fro those who do not wish to conduct project A or B. In Addition, students will be able to choose elective subjects from the list of approved subjects offered by other University of Melbourne faculties, subject to approval by the Course Coordinator.

Subject Options:

Master Agricultural Science

Core Subjects

Subject	Study Period Commencement:	Credit Points:
202-501 Emerging Issues for Land and Food	Not offered 2008	12.500
208-610 Climate Change:Agric.Impacts&Adaptation	Semester 1	12.50
202-602 Animal & Plant Protection	Semester 2	12.50
207-511 Soil Science and Management	Semester 1	12.50

And one of:

Subject	Study Period Commencement:	Credit Points:
208-503 Research Philosophies & Statistics	Semester 1	12.50
207-512 Social Research Methods	Semester 1	12.50

And one of:

Subject	Study Period Commencement:	Credit Points:
208-504 Agricultural Plants & the Environment	Semester 2	12.50
208-405 Advanced Animal Management Systems	Semester 1	12.50

And one of:

Subject	Study Period Commencement:	Credit Points:
208-611 Agronomy & Cropping Systems	Semester 2	12.50
208-612 Animal Metabolism & Nutrition	Semester 1	12.50
208-409 Animal Welfare	Semester 1	12.50

And one of:

Subject	Study Period Commencement:	Credit Points:
208-613 Advanced Plant Breeding & Biotechnology	Semester 2	12.50
208-407 Genetics and Animal Breeding	Semester 1	12.50

Elective Subjects within LFR

Subject	Study Period Commencement:	Credit Points:
202-502 Project A	Semester 2	25
202-603 Project B	Year Long	50
208-614 Research Project Management	1	12.500
208-615 Fundamentals & Management of GIS	Semester 1	12.50
208-616 MgtEconomics4PrimaryResourceBusinesses	Semester 2	12.50

208-617 Agrifood Marketing	Semester 2	12.50
208-619 Food Biotechnology	Semester 2	12.50
207-508 Conservation Genetics	Not offered 2008	12.500
207-505 Global Environment and Sustainability	Semester 1	12.50
207-501 Management of Plant and Animal Invasions	Semester 2	12.50
220-510 Farm Trees & Agroforestry	Semester 1	12.50
220-416 Forests & Water: Issues around the World	Semester 2	12.50

*Proposed elective subjects from the University (subject to availability)

Subject	Study Period Commencement:	Credit Points:
505-944 Bioinformatics	Semester 2	12.50
421-681 Management for the Environment	Semester 2	12.50

Entry Requirements:

Eligibility

i. The Selection Committee will evaluate the applicant's ability to successfully pursue the course using the following criteria:

An honours degree or equivalent qualification.

Or

Undergraduate tertiary qualification with a weighted average of 65% or better in the final year of study.

Or

Successful completion of a Graduate / Postgraduate Diploma with a weighted average of 65% or better.

ii Completion of an Honours program or a Postgraduate Diploma in Agriculture or Agricultural Science will give an advanced standing of 100 points into the Master of Agricultural Science.

iii The course is primarily designed for students with a science-based background with biology and/or chemistry at VCE. The Selection Committee may conduct interviews and tests and call for referee reports and employer references to elucidate any of the matters referred to above.

Guaranteed Entry

Students with a weighted average of 70% in the final year of study within the new Bachelor of Science major in Agriculture will have guaranteed entry into the Master of Agricultural Science course.

Core Participation Requirements:

It is University policy to take all steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. This course requires all students to enrol in subjects where they must actively and safely contribute to laboratory activities and field trips. Students who feel their disability will impact on meeting this requirement are encouraged to discuss this matter with the Subject Coordinator and Disability Liaison Unit.

Graduate Attributes:

The Melbourne Experience enables our Graduates to become:Academically excellentOur Graduates will be expected to: have strong sense of intellectual integrity and the ethics of scholarshiphave in-depth knowledge of their specialist discipline(s)reach a high level of achievement in writing, generic research activities, problem-solving and communicationbe critical and creative thinkers, with an aptitude for continued self directed learningbe adept at learning in a range of ways, including through information and communication technologiesKnowledgeable across disciplinesOur graduates will be expected to:examine critically, synthesise and evaluate knowledge across a broad range of disciplinesexpand their analytical and cognitive skills through learning experinces in diverse subjectshave the capacity to participate fully in collaborative learning and to confront unfamiliar problemshave a a set of flexible and transferable skills for different types of employment.Leaders in communities Our graduates will be expected to:initiate and implement constructive change in their communities,

	including professions and workplaceshave excellent interpersonal and decision-making skills, including an awareness of personal strengths and limitationsmentor future generations of learnersengage in meaningful public discourse, with a profound awareness of community needsAttuned to cultural diversity Our graduates will be expected to : Value different culturesbe well-informed citizens able to contibute to their communities wherever they choose to live and workhave an understanding of the social and cultural diversity in our communityrespect Indigenous knowledge, cultures and valuesActive global citizensOur graduates will be expected to:accept social and civic responsiblitiesbe advocates for improving the sustainability of the environmenthave a broad global understanding, with a high regard for human rights, equality and ethics.
Generic Skills:	# A profound respect for truth, intellectual and professional integrity, and the ethics of scholarship # Capacity for independent critical thought, rational inquiry and self-directed learning and research # An ability to derive, interpret and analyse social, technical or economic information from primary and other sources # Awareness of and ability to utilise appropriate communication technology and methods for the storage, management and analysis of data # Capacity for creativity and innovation, through the application of skills and knowledge # Ability to integrate information across a relevant discipline to solve problems in applied situations # Highly developed computer - based skills to allow for effective on-line learning and communication. # Highly developed written communication skills to allow informed dialogue with individuals and groups from industry, government and the community # Highly developed oral communication skills to allow informed dialogue and liaison with individuals and groups from industry, government and the community. # Appreciation of social and cultural diversity from a regional to a global context # Ability to participate effectively as a member of a team # Ability to plan work, use time effectively and manage small projects
Links to further information:	http://www.agscience.unimelb.edu.au