MC-AGSCI Master of Agricultural Science

Year and Campus:	2011 - Parkville
CRICOS Code:	061207B
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:	Dr Ian Bland
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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 core foundation subjects such as “Emerging Research Issues for Land Resources” and “Soil Fertility and Conservation”. You will also have completed at least one 25 point research project and possibly a 50 point research project, or you may have broadened your base knowledge through elective subjects. This includes subjects focused on animal and plant production, management of disease and pest incursions and on advanced breeding and spatial information capabilities
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 for 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.

Majors/Minors/ Specialisations

MASTER OF AGRICULTURAL SCIENCE

Subject Options:

Core Subjects

Students Must complete all of the following subjects

Subject	Study Period Commencement:	Credit Points:
DASC90008 Monogastric Science	March	12.50
AGRI90066 Soil Science and Management	Not offered 2011	12.50
HORT40001 Advanced Plant Breeding and Improvement	Not offered 2011	12.50
FOOD90024 Disease Management and Food Security	Not offered 2011	12.50
NRMT40001 Emerging Issues in Land Resources	Semester 2	12.50
DASC90010 Dairy Systems	October	12.50
AGRI90058 Agronomy & Cropping Systems	Semester 2	12.50
AGRI90064 Project A	Not offered 2011	25

Selectives

Students Must complete one of the following selective subjects

Subject	Study Period Commencement:	Credit Points:
MAST90008 Research Philosophies & Statistics	Semester 1	12.50
NRMT90003 Social Research Methods	March	12.50
AGRI90075 Research Methods For Life Sciences	Semester 1	12.50

Research Project

Students Must complete one of the following research subjects

Subject	Study Period Commencement:	Credit Points:
AGRI90064 Project A	Not offered 2011	25
AGRI90070 Project A	Year Long	25

Electives

Please select 75 points from the following subjects:

Subject	Study Period Commencement:	Credit Points:
AGRI90065 Project B	Semester 1, Semester 2	25

AGRI90072 Project B	Semester 1, Semester 2	50
EVSC90001 Global Environment and Sustainability	Not offered 2011	12.50
DASC90011 Genetics and Animal Breeding	Semester 2	12.50
GEOG90006 Fundamentals & Management of GIS	Not offered 2011	12.50
AGRI90057 Climate Change:Agric.Impacts&Adaptation	September	12.50
DASC90005 Animal Metabolism & Nutrition	Not offered 2011	12.50
FOOD90012 Current Issues in Dairy Science	Semester 1	12.50
AGRI90014 Managing Markets	June	12.50
DASC90006 Animal Feed Science	Not offered 2011	12.50
NRMT90002 Management of Plant and Animal Invasions	Semester 2	12.50
AGRI90071 Supply Chain Management	Not offered 2011	12.50
FOOD90010 Meat and Smallgoods Technology	Not offered 2011	12.50
FOOD90009 Cereal, Legume and Oilseed Technology	Semester 2	12.50
AGRI90073 Applications for Spatial Information	Not offered 2011	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:

The Melbourne School of Land and Environment (MSLE) welcomes applications from students with disabilities. It is University and School policy to take reasonable steps to make reasonable adjustments so as to enable the student's participation in the School's programs. MSLE contributes to the New Generation degrees and offers a broad range of programs across undergraduate and post-graduate levels many of which adopt a multi-disciplinary approach.Students of the School's courses must possess intellectual, ethical, and emotional capabilities required to participate in the full curriculum and to achieve the levels of competence required by the School. Candidates must have abilities and skills in observation; motor in relevant areas; communication; in conceptual, integrative, and quantitative dimensions; and in behavioural and social dimensions.Adjustments can be provided to minimise the impact of a disability, however students need to be able to participate in the program in an independent manner and with regard to their safety and the safety of others.I. Observation: In some contexts, the student must be able to observe demonstrations and experiments in the basic and applied

	sciences. More broadly, observation requires reading text, diagrams, maps, drawings and numerical data. The candidate should be able to observe details at a number of scales and record useful observations in discipline dependant contexts.II. Communication: A candidate should be able to communicate with fellow students, professional and academic staff, members of relevant professions and the public. A candidate must be able to communicate effectively and sensitively. Communication includes not only speech but also reading and writing.III. Motor: Candidates should have sufficient motor function necessary for participation in the inherent discipline-related activities. The practical work, design work, field work, diagnostic procedures, laboratory tests, require varying motor movement abilities. Off campus investigations may include visits to construction sites, urban, rural and/or remote environments.IV. Intellectual-Conceptual, Integrative and Quantitative Abilities: These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem solving, the critical skill demanded of professionals in land and environment industries, requires all of these intellectual abilities. In addition, the candidate should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures.V. Behavioural and Social Attributes: A candidate must possess behavioural and social attributes that enable them to participate in a complex learning environment. Students are required to take responsibility for their own participation and learning. They also contribute to the learning of other students in collaborative learning environments, demonstrating interpersonal skills and an understanding of the needs of other students. Assessment may include the outcomes of tasks completed in collaboration with other students.Students who feel their disability will prevent them from meeting the above academic requirements are encouraged to contact the Disability Liaison Unit.
Graduate Attributes:	The Melbourne Experience enables our Graduates to become: Academically excellent Our Graduates will be expected to: have 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, generic research activities, problem-solving and communication be critical and creative thinkers, with an aptitude for continued self directed learning be adept at learning in a range of ways, including through information and communication technologies Knowledgeable across disciplines Our graduates will be expected to: examine critically, synthesise and evaluate knowledge across a broad range of disciplines expand their analytical and cognitive skills through learning experinces in diverse subjects have the capacity to participate fully in collaborative learning and to confront unfamiliar problems have 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 workplaces have excellent interpersonal and decision-making skills, including an awareness of personal strengths and limitations mentor future generations of learners engage in meaningful public discourse, with a profound awareness of community needs Attuned to cultural diversity Our graduates will be expected to : Value different cultures be well-informed citizens able to contibute to their communities wherever they choose to live and work have an understanding of the social and cultural diversity in our community respect Indigenous knowledge, cultures and values Active global citizens Our graduates will be expected to: accept social and civic responsiblities be advocates for improving the sustainability of the environment have 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