## 439FS Master of Food Science

Year and Campus:	2014 - Parkville
CRICOS Code:	061970M
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
Contact:	Melbourne School of Land & Environment Student Centre         Ground Floor, Melbourne School of Land and Environment (building 142)         Current Student Enquiries         Phone: 13 MELB (13 6352)         Email: 13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)         Future Student Enquiries (https://nexus.unimelb.edu.au/NexusEnquiryForm.aspx?         f=16755909770&m=573578&l=0&programcode=439⊂=RE:%20RE:%20Food         %20Science&enquirytype=2)
Course Overview:	The Melbourne School of Land and Enviroment at the University of Melbourne is proud to introduce you to its Master of Food Science. The Master of Food Science has been developed for graduates holding a science or engineering degree seeking specialist training for a career in the food and associated industries. Each student completes a tailored program of coursework subjects incorporating core study areas and electives in addition to a research project in an approved area of food science. As a graduate you will be well prepared to play a key role in research and technical divisions within food companies and associated organisations, as well as in managing food production across the entire food supply chain.
Learning Outcomes:	<ul> <li>In this course, students will</li> <li># be able to demonstrate advanced knowledge and skills in the interdiscplinary field of food science.</li> <li># develop the cogitive, technical and creative skills necessary to underpin understanding of recent innovations in food science</li> <li># be exposed to advanced research topics and practical applications within the disciplines of food science, and develop the skills necessary to plan and execute an independent piece of research and communicate the impact of this work</li> <li># develop an understanding of problem solving and research methodologies and demonstrate personal accountability by applying solutions to diverse challenges facing food production, supply and security</li> <li># interpret, critically analyse and evaluate data generated through research activities in order to effectively understand and implement improved systems within food science</li> <li># demonstrate a comprehensive understanding of the specialised disciplines of food science, emerging technologies and the relevance of these to the future food industry</li> <li># demonstrate a critical understanding of environmental, economic, social and ethical factors related to food production in Australia and globally, with the cognitive, technical and creative skills necessary to communicate the information to a specialist and non-specialist audience</li> </ul>
Course Structure & Available Subjects:	A diverse range of elective subjects is offered enabling students to develop sufficient familiarity with knowledge areas relevant to their research thesis, supplementing existing academic qualifications and industrial experience.

	The program comprises of 75 credit points of Core subjects, Toolbox subjects, a minimum of 25 credit points of Research points of discipline electives.	25 credit points of Profe Project and a minimum	esional n of 25 credit	
Majors/Minors/ Specialisations	Master of Food Science			
Subject Options:	Core Subjects			
	Students must complete all of the following six subjects (75 credit points):			
	Subject	Study Period Commencement:	Credit Points:	
	FOOD90022 Food Chemistry	Semester 1	12.50	
	FOOD90007 Food Processing	Semester 1	12.50	
	FOOD90023 Food Microbiology	Semester 2	12.50	
	FOOD90008 Food Safety and Quality	Semester 2	12.50	
	FOOD90024 Securing Sufficient and Healthy Food	Semester 2	12.50	
	AGRI90057 Climate Change: Agric. Impacts& Adaptation	June, September	12.50	
	Professional Toolbox	l		
	Science Tools Students must complete one of the following subjects (12.5)	points) within the second	d year of	
	study:			
	StUCY:	Study Period Commencement:	Credit Points:	
	StUGY: Subject MAST90008 Research Philosophies & Statistics	Study Period Commencement: Semester 1	Credit Points: 12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods	Study Period Commencement: Semester 1 Semester 1	Credit Points: 12.50 12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences	Study Period Commencement: Semester 1 Semester 1 Semester 1	Credit Points: 12.50 12.50 12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)	Study Period Commencement: Semester 1 Semester 1 Semester 1 points):	Credit         Points:           12.50         12.50           12.50         12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject	Study Period Commencement: Semester 1 Semester 1 Semester 1 points): Study Period Commencement:	Credit Points: 12.50 12.50 12.50 Credit Points:	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject         NRMT90017 Leadership	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February	Credit         Points:           12.50         12.50           12.50         12.50           12.50         12.50	
	Subject         MAST90008 Research Philosophies & Statistics         MAST90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject         NRMT90017 Leadership         NRMT90018 Human Resource Management	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February         April	Credit       Points:         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50	
	Subject         MAST90008 Research Philosophies & Statistics         MAST90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject         NRMT90017 Leadership         NRMT90018 Human Resource Management         NRMT90021 Project Management	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February         April         June	Credit       Points:         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50	
	Subject         MAST90008 Research Philosophies & Statistics         MAST90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject         NRMT90017 Leadership         NRMT90018 Human Resource Management         NRMT90021 Project Management         AGRI90013 Financial Management for Agribusiness	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February         April         June         September	Credit       Points:         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5         Subject         NRMT90017 Leadership         NRMT90018 Human Resource Management         NRMT90021 Project Management         AGRI90013 Financial Management for Agribusiness         NRMT90019 Business Strategy	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February         April         June         September         February	Credit       Points:         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject         NRMT90017 Leadership         NRMT90018 Human Resource Management         NRMT90013 Financial Management for Agribusiness         NRMT90019 Business Strategy         ENST90023 Managing Innovation and Change	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February         April         June         September         February         September         September	Credit       Points:         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50         12.50       12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject         NRMT90017 Leadership         NRMT90018 Human Resource Management         NRMT90013 Financial Management for Agribusiness         NRMT90019 Business Strategy         ENST90023 Managing Innovation and Change         SCIE90012 Science Communication	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February         April         June         September         February         September         September         September         September         September         Semester 2	Credit Points:         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50         12.50	
	Subject         MAST90008 Research Philosophies & Statistics         NRMT90003 Social Research Methods         AGRI90075 Research Methods For Life Sciences         Business Tools/Scientific Communication         Students must complete one of the following subjects (12.5)         Subject         NRMT90017 Leadership         NRMT90018 Human Resource Management         NRMT90021 Project Management         AGRI90013 Financial Management for Agribusiness         NRMT90019 Business Strategy         ENST90023 Managing Innovation and Change         SCIE90012 Science Communication         AGRI90076 Internship for Land and Environment	Study Period Commencement:         Semester 1         Semester 1         Semester 1         points):         Study Period Commencement:         February         April         June         September         February         September         Semester 2         Summer Term, Semester 1, Semester 2	Credit Points:         12.50	

## Students must complete a minimum of 25 points of the following:

Subject	Study Period Commencement:	Credit Points:
AGRI90064 Minor Research Project	Semester 1, Semester 2	12.50
AGRI90070 Minor Research Project	Semester 1, Semester 2	25
AGRI90065 Major Research Project	Semester 1, Semester 2	25
AGRI90072 Major Research Project	Semester 1, Semester 2	50

## **Discipline Electives**

Students must complete a minimum of two subjects (25 points) from the following:

Subject	Study Period Commencement:	Credit Points:
FOOD90011 Food Biotechnology	Semester 1	12.50
FOOD90009 Cereal, Legume and Oilseed Technology	Semester 1	12.50
AGRI90019 Fruit and Vegetable Technology	Not offered 2014	12.50
FOOD90010 Meat and Meat ProductsTechnology	Semester 2	12.50
FOOD90012 Current Issues in Dairy Science	Semester 1	12.50
AGRI90030 Concepts in Viticulture and Wine Science	March	12.50
AGRI90041 Advanced Oenology	Мау	12.50
AGRI90042 Wine Science	July	12.50
AGRI90039 Australian Wine - A World Perspective	Not offered 2014	12.50
FOOD90025 Health Aspects in Functional Foods	Semester 2	12.50
FOOD90026 The Politics of Food	Semester 1, Semester 2	12.50
FOOD90027 Nutrition Politics and Policy	Semester 2	12.50
FOOD90028 Sensory Analysis and Practice	February	12.50

## **Other Electives**

You should choose the remainder of your subjects from the following list of electives:

Subject	Study Period Commencement:	Credit Points:
EVSC90001 Global Environment and Sustainability	February	12.50
AGRI90014 Managing Markets	June	12.50
AGRI90012 Agribusiness Management Economics	April	12.50
NRMT90018 Human Resource Management	April	12.50
AGRI90017 Operations and Decision-making	Not offered 2014	12.50
FOOD90011 Food Biotechnology	Semester 1	12.50
AGRI90019 Fruit and Vegetable Technology	Not offered 2014	12.50
AGRI90030 Concepts in Viticulture and Wine Science	March	12.50

	AGRI90041 Advanced Oenology	Мау	12.50
	FOOD90009 Cereal, Legume and Oilseed Technology	Semester 1	12.50
	FOOD90010 Meat and Meat ProductsTechnology	Semester 2	12.50
	FOOD90012 Current Issues in Dairy Science	Semester 1	12.50
	AGRI90042 Wine Science	July	12.50
	AGRI90039 Australian Wine - A World Perspective	Not offered 2014	12.50
	ENST90032 Contemporary Environmental Issues C	Semester 1	12.50
Entry Requirements:	<ol> <li>The Selection Committee will evaluate the applicant's abil successfully using the following criteria:         <ul> <li># an undergraduate degree with at least H3 (65%) average</li> <li># a graduate or postgraduate certificate in any discipline w</li> <li># a graduate or postgraduate diploma in any discipline, w</li> <li># an honours degree in any discipline, or equivalent; and</li> <li># two academic referee reports; and</li> <li># a personal statement of up to 500 words.</li> </ul> </li> <li>The Selection Committee may conduct interviews and tes reports or employer references to elucidate any of the matte</li> <li>Note. Up to 100 points of advanced standing in Master of For the completion of a relevant honours degree or a Postgraduate any equivalent.</li> </ol>	ity to pursue the course ge in the final year, or with at least H3 (65%) av ith at least H3 (65%) ave ts and may call for furthe rs referred to above. bod Science may be awa ate Diploma in Food Scie	verage, or erage, or er referee irded for ence or
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 correse 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 participations may include visits to construction sites, urban, rural and/or remote environments. IV. Intellectual, forgerstive and Quantitative Abilities: These abilities include measurement, falculation, the candidate should be to comp		

	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 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, 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 experiences in diverse subjects have the capacity to participate fully in collaborative learning and to confront unfamiliar problems have a set of flexible and transferable skills for different types of employment. Leaders in 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 contribute 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 responsibilities 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:	<ul> <li># A profound respect for truth, intellectual and professional integrity, and the ethics of scholarship</li> <li># Capacity for independent critical thought, rational inquiry and self-directed learning and research</li> <li># An ability to derive, interpret and analyse social, technical or economic information from primary and other sources</li> <li># Awareness of and ability to utilise appropriate communication technology and methods for the storage, management and analysis of data</li> <li># Capacity for creativity and innovation, through the application of skills and knowledge</li> <li># Ability to integrate information across a relevant discipline to solve problems in applied situations</li> <li># Highly developed computer - based skills to allow for effective on-line learning and communication.</li> <li># Highly developed written communication skills to allow informed dialogue with individuals and groups from industry, government and the community.</li> <li># Highly developed oral communication skills to allow informed dialogue and liaison with individuals and groups from industry, government and the community.</li> <li># Appreciation of social and cultural diversity from a regional to a global context</li> <li># Ability to plan work, use time effectively and manage small projects</li> </ul>
Links to further information:	http://www.land-environment.unimelb.edu.au/foodscience/