**MC-ANISCI Master of Animal Science** 

| Year and Campus:                       | 2016 - Parkville   |
|--|--|
| CRICOS Code:                           | 064717M  |
| 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:                               | Current students <a href="http://studentcentre.unimelb.edu.au/">http://studentcentre.unimelb.edu.au/</a> (http://studentcentre.unimelb.edu.au/)  |
| Course Overview:                       | Please note that this course is no longer accepting enrolments. Students should consider enrolling into the Animal Science specialisation within the Master of Agricultural Sciences MC-AGSC   |
|  | Candidates will graduate with an excellent understanding of the many factors underpinning animal systems and an awareness of methods for sustainable food and fibre production and their markets. The aims of the Masters of Animal Science (coursework) are to further develop an understanding of the biology of domestic and captive animals, their care, management and use as a resource for food, fibre, recreation and companionship; to develop an indepth knowledge of the biology of animals, the complexities of the ethical and moral issues encompassing care, management and use as a resource will be examined in light of advances in human endeavour. The masters will allow a degree of specialisation based around analysis of animal systems management of a chosen species or classification of animals. The course design comprises theory and technology applications, with a focus on improving current cropping and animal production systems for increased product yields and qualities within Australian and International environments.  Animal science masters also comprises many existing and novel emerging areas in the animal  |
|  | and associated sciences, aimed to create opportunities for advances in the manipulation of biological systems for increased productivity. The scientific tools and advances are evolving fast and are being directly applied to food and fibre industries worldwide.   |
| Learning Outcomes:                     | In this course, students will  # Be able to demonstrate advanced knowledge and skills in the interdisciplinary field of animal science  # Interpret, critically analyse and evaluate data generated through research activities in order to effectively understand and implement improved animal systems (farm and other domesticated animals)  # Be exposed to advanced research topics and practical applications within the disciplines of animal science, and develop the skills necessary to plan and execute an independent piece of research and communicate the impact of this work  # Develop an understanding of problem solving and research methodologies and demonstrate personal accountability by applying solutions to diverse challenges facing animal systems  # Investigate and apply innovative approaches to the contemporary, interdisciplinary management of commercial animal systems  # Demonstrate a critical understanding of environmental, economic, social and ethical factors related to animal-derived food and fibre production in Australia and globally, with the cognitive, technical and creative skills necessary to communicate the information to a specialist and non-specialist audience |
| Course Structure & Available Subjects: | The Master of Animal Science (coursework) consists of 200 credit points of study. The Master course may be undertaken as either full time study over two years or part time study over four years and will be delivered at the Parkville campus. International students may only enrol in the course on a full time basis.   |

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|                | The program comprises of 75 credit points of Core subjects, 25 credit points of Professional Toolbox subjects, a minimum of 25 credit points of Research Project and a minimum of 25 credit points of discipline electives. |
|----------------|---|
| Majara/Minara/ | Master of Animal Science  |

#### Majors/Minors/ Specialisations

Master of Animal Science

### **Subject Options:**

## **Core Subjects**

Students must complete all of the following six subjects (75 points):

| Subject   | Study Period Commencement: | Credit<br>Points: |
|---|----------------------------|-------------------|
| DASC90008 Monogastric Science                     | March                      | 12.50             |
| AGRI90057 Climate Change:Agric.Impacts&Adaptation | June, July                 | 12.50             |
| DASC90007 Stress Physiology                       | April                      | 12.50             |
| DASC90010 Dairy Systems                           | August                     | 12.50             |
| DASC90006 Nutrition and Feed Science              | September                  | 12.50             |
| FOOD90024 Securing Sufficient and Healthy Food    | Semester 1                 | 12.50             |

## **Professional Toolbox**

Students must complete two Professional Toolbox subjects (25 points) , one subject (12.5 points) from Science Tools and one subject (12.5 points) from Business Tools or Scientific Communication

## **Science Tools**

Students must complete one of the following subjecs (12.5 points):

| Subject                                      | Study Period Commencement: | Credit<br>Points: |
|--|----------------------------|-------------------|
| MAST90008 Research Philosophies & Statistics | Semester 1                 | 12.50             |
| NRMT90003 Social Research Methods            | Semester 1                 | 12.50             |
| AGRI90075 Research Methods For Life Sciences | Semester 1                 | 12.50             |

### **Business Tools/Scientific Communication**

Students must complete one of the following subjects (12.5 points):

| Subject   | Study Period Commencement:          | Credit<br>Points: |
|---|-------------------------------------|-------------------|
| NRMT90017 Leadership                            | February                            | 12.50             |
| NRMT90018 Human Resource Management             | Semester 1                          | 12.50             |
| NRMT90021 Project Management                    | Semester 2                          | 12.50             |
| AGRI90013 Financial Management for Agribusiness | Semester 1                          | 12.50             |
| NRMT90019 Business Strategy                     | February                            | 12.50             |
| ENST90023 Managing Innovation and Change        | Semester 2                          | 12.50             |
| SCIE90012 Science Communication                 | Not offered 2016                    | 12.50             |
| AGRI90076 Industry Internship                   | Summer Term, Semester 1, Semester 2 | 12.50             |

# Research Project

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

| Subject                          | Study Period Commencement: | Credit<br>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) of the following:

| Subject  | Study Period Commencement: | Credit<br>Points: |
|--|----------------------------|-------------------|
| DASC90009 Behaviour of Farm & Companion Animals  | May                        | 12.50             |
| DASC90011 Genetics and Animal Breeding           | August                     | 12.50             |
| DASC90012 Animal Welfare                         | May                        | 12.50             |
| FOOD90012 Current Issues in Dairy Science        | Semester 1                 | 12.50             |
| FOOD90010 Meat and Meat Products                 | Semester 2                 | 12.50             |
| DASC90013 Adv Reproduction & Breeding Technology | Not offered 2016           | 12.5              |

# **Other Electives**

| Subject  | Study Period Commencement: | Credit<br>Points: |
|--|----------------------------|-------------------|
| FOOD90011 Food Biotechnology                       | Semester 1                 | 12.50             |
| NRMT90002 Management of Plant and Animal Invasions | Semester 2                 | 12.50             |
| EVSC90001 Global Environment and Sustainability    | February                   | 12.50             |
| AGRI90014 Managing Markets                         | Semester 2                 | 12.50             |
| AGRI90012 Agribusiness Management Economics        | Semester 2                 | 12.50             |
| MGMT90018 Managerial Psychology                    | Semester 1, Semester 2     | 12.50             |
| FOOD90026 The Politics of Food                     | Semester 1                 | 12.50             |
| FOOD90028 Sensory Analysis and Practice            | February                   | 12.50             |
| FOOD90027 Nutrition Politics and Policy            | Semester 2                 | 12.50             |
| ENST90032 Sustainability and Behavioural Change    | Semester 1                 | 12.50             |
| FOOD90025 Health Aspects in Functional Foods       | Not offered 2016           | 12.5              |

## **Entry Requirements:**

Please note that this course is no longer accepting enrolments. Students should consider enrolling into the Animal Science specialisation within the Master of Agricultural Sciences MC-AGSC

# Core Participation Requirements:

The Faculty of Veterinary and Agricultural Sciences (FVAS) welcomes applications from students with disabilities. It is University and Faculty policy to take reasonable steps to make reasonable adjustments so as to enable the student's participation in the Faculty's programs. FVAS 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.

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Students of the Faculty'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. **Further Study:** There is a clear progression pathway from masters by coursework programme to PhD. The graduates from the Master of Animal Science (coursework) will have achieved academic **Graduate Attributes:** excellence in their chosen field(s) of study. They will possess in-depth knowledge in those fields(s) and have been equipped with all necessary tools and skills to become leaders at both national and global levels. # A profound respect for truth, intellectual and professional integrity, and the ethics of **Generic Skills:** 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

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