DASC30008 Genetics and Animal Breeding

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	This subject is not offered in 2011.
Time Commitment:	Contact Hours: Thirty six hours of lectures, 30 hours of practical work Total Time Commitment: Not available
Prerequisites:	Students must have completed:

Subject	Study Period Commencement:	Credit Points:
BIOL10005 Genetics & The Evolution of Life	Semester 2	12.50

Corequisites:	Nil
Recommended Background Knowledge:	Recommended Background Knowledge:

Subject	Study Period Commencement:	Credit Points:
DASC20012 Comparative Nutrition and Digestion	Semester 1	12.50
DASC20010 Applied Animal Physiology	Semester 2	12.50
DASC20011 Companion Animal Biology	Semester 1	12.50
DASC20013 Topics in Animal Health	Semester 2	12.50
ECOL20003 Ecology	Semester 2	12.50

Non Allowed Subjects:	Nil
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Contact:	**Melbourne School of Land & Environment Student Centre** Ground Floor, Land & Food Resources (building 142) *Enquiries* Phone: 13 MELB (13 6352) Email: **13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)**
Subject Overview:	This subject covers the application of genetics to the breeding of animals. On completion of the course students should understand the application of quantitative and molecular genetics, have a sound knowledge of practical breeding programs and be able to design and manage these programs. The topics to be covered include: # definition of breeding objectives in economic terms; # the meaning of genetic parameters such as heritability; # estimation of breeding values; # use of genetic improvement tools such as selection and crossbreeding; # the effects of inbreeding and how to minimise them;

	# the use of molecular and reproductive technology; and # design of breeding programs.
Objectives:	On completion of this subject, students should be able to: # express the meaning and application of a range of genetic parameters # estimate breeding values and use genetic tools to determine the impact of selection and crossbreeding # identify the impact of inbreeding # evaluate a range of genetic tools (including molecular and reproductive technologies) for the design breeding programmes.
Assessment:	One 3-hour written examination (50%), two written practical reports and assignments totalling 5000 words (35%), one seminar presentation (15%).
Prescribed Texts:	N/A
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2011/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2011/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2011/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2011/B-MUS)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Information Not Available
Related Course(s):	Bachelor of Science
Related Majors/Minors/ Specialisations:	Agri-food Biotechnology (specialisation of Biotechnology major) Animal Disease Biotechnology (specialisation of Animal Health and Disease major) Animal Science and Management