

## 208-339 Genetics and Animal Breeding

<b>Credit Points:</b>	12.50
<b>Level:</b>	3 (Undergraduate)
<b>Dates &amp; Locations:</b>	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus.
<b>Time Commitment:</b>	Contact Hours: Twenty-four hours of lectures and 36 hours of practical work Total Time Commitment: Not available
<b>Prerequisites:</b>	None
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	<p>&lt;p&gt;For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.&lt;/p&gt;         &lt;p&gt;It is University policy to take all reasonable 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. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p>
<b>Coordinator:</b>	Prof Michael Edward Goddard
<b>Contact:</b>	msle-ugrad@unimelb.edu.au
<b>Subject Overview:</b>	<p>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:</p> <ul style="list-style-type: none"> <li># definition of breeding objectives in economic terms;</li> <li># the meaning of genetic parameters such as heritability;</li> <li># estimation of breeding values;</li> <li># use of genetic improvement tools such as selection and crossbreeding;</li> <li># the effects of inbreeding and how to minimise them;</li> <li># the use of molecular and reproductive technology; and</li> <li># design of breeding programs.</li> </ul>
<b>Objectives:</b>	<p>On completion of this subject, students should be able to:</p> <ul style="list-style-type: none"> <li># express the meaning and application of a range of genetic parameters</li> <li># estimate breeding values and use genetic tools to determine the impact of selection and crossbreeding</li> <li># identify the impact of inbreeding</li> <li># evaluate a range of genetic tools (including molecular and reproductive technologies) for the design breeding programmes.</li> </ul>

<b>Assessment:</b>	One 3-hour written examination (50%), three written practical reports and assignments totalling 5000 words (35%), one seminar presentation equivalent to 2000 words (15%).
<b>Prescribed Texts:</b>	None
<b>Recommended Texts:</b>	Information Not Available
<b>Breadth Options:</b>	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> <li># <b>Bachelor of Arts</b> (<a href="https://handbook.unimelb.edu.au/view/2009/D09">https://handbook.unimelb.edu.au/view/2009/D09</a>)</li> <li># <b>Bachelor of Commerce</b> (<a href="https://handbook.unimelb.edu.au/view/2009/F04">https://handbook.unimelb.edu.au/view/2009/F04</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2009/A04">https://handbook.unimelb.edu.au/view/2009/A04</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2009/M05">https://handbook.unimelb.edu.au/view/2009/M05</a>)</li> </ul> <p>You should visit <b>learn more about breadth subjects</b> (<a href="http://breadth.unimelb.edu.au/breadth/info/index.html">http://breadth.unimelb.edu.au/breadth/info/index.html</a>) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	Information Not Available
<b>Related Course(s):</b>	<p>Bachelor of Agricultural Science          Bachelor of Agricultural Science          Bachelor of Animal Science and Management          Graduate Diploma in Agricultural Science</p>