

MC-SCIGEN Master of Science (Genetics)

Year and Campus:	2011 - Parkville
CRICOS Code:	062189B
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:	Professor James Camakaris Email: j.camakaris@unimelb.edu.au
Contact:	Melbourne Graduate School of Science Faculty of Science The University of Melbourne Tel: + 61 3 8344 6128 Fax: +61 3 8344 3351 Web: http://graduate.science.unimelb.edu.au (http://graduate.science.unimelb.edu.au/)
Course Overview:	The Master of Science - Genetics is one of the research training streams of the Master of Science. The research training streams give students the opportunity to undertake a substantive research project in a field of choice as well as a broad range of coursework subjects including a professional tools component, as a pathway to PhD study or to the workforce.
Objectives:	Course objectives include: <ul style="list-style-type: none"> # extending students' abilities in oral and written scientific communication; # understanding the way in which experiments in genetics are designed, communicated and interpreted; # acquiring experience in planning and executing laboratory or field-based experimental research; and # developing effective skills in data collection and analysis and postulating testable hypotheses based on this data.
Course Structure & Available Subjects:	<p>Students undertaking the Master of Science (Genetics program) will complete 200 points comprising:</p> <ul style="list-style-type: none"> # 25 points of Discipline subjects; # 25 points of Elective Discipline subjects; # 25 points of Professional Tools subjects; and # a 50 point minor Research Project and a 75 point major Research Project. <p>Discipline Core subjects: 25 points</p> <p>Students must take:</p> <ul style="list-style-type: none"> # GENE90012 Advanced Topics in Genetics A # GENE90018 Advanced Topics in Genetics B <p>Students need not complete Advanced Topics in Genetics A prior to enrolling in Advanced Topics in Genetics B.</p> <p>Discipline Elective subjects: 25 points</p> <p>Students must take 25 points of the following:</p> <ul style="list-style-type: none"> # BTCH90005 Advanced Molecular Biology Techniques; # BTCH90009 Genomics and Bioinformatics # BIOL90001 Microscopy for Biological Sciences; and # 12.5 or 25 points of other approved subjects. <p>Professional Tools subjects: 25 points</p> <p>Students must take:</p>

	<p># SCIE90006 Scientists, Communication and the Workplace</p> <p># MAST90044 Thinking and Reasoning with Data</p> <p>Research Projects: total 125 points</p> <p>First Year</p> <p>Research component - 50 points</p> <p>Research proposal (30%); minor thesis (70%).</p> <p>Second Year</p> <p>Research component - 75 points</p> <p>Major thesis (90%); oral presentation (10%).</p>																																													
Subject Options:	<p>Discipline Core</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>GENE90012 Advanced Topics in Genetics A</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>GENE90018 Advanced Topics in Genetics B</td> <td>April</td> <td>12.50</td> </tr> </tbody> </table> <p>Discipline Elective</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BTCH90005 Advanced Molecular Biology Techniques</td> <td>Not offered 2011</td> <td>12.50</td> </tr> <tr> <td>BTCH90009 Genomics and Bioinformatics</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BIOL90001 Microscopy for Biological Sciences</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p>Professional Tools</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>SCIE90006 Scientists,Communication & the Workplace</td> <td>Not offered 2011</td> <td>12.50</td> </tr> <tr> <td>MAST90044 Thinking and Reasoning with Data</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p>Research Project</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>GENE90013 Advanced Genetic Research</td> <td>Summer Term, Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>GENE90015 Advanced Genetic Research</td> <td>Summer Term, Semester 1, Semester 2</td> <td>25</td> </tr> <tr> <td>GENE90016 Advanced Genetic Research</td> <td>Summer Term, Semester 1, Semester 2</td> <td>37.50</td> </tr> <tr> <td>GENE90017 Advanced Genetic Research</td> <td>Summer Term, Semester 1, Semester 2</td> <td>50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	GENE90012 Advanced Topics in Genetics A	Semester 1	12.50	GENE90018 Advanced Topics in Genetics B	April	12.50	Subject	Study Period Commencement:	Credit Points:	BTCH90005 Advanced Molecular Biology Techniques	Not offered 2011	12.50	BTCH90009 Genomics and Bioinformatics	Semester 1	12.50	BIOL90001 Microscopy for Biological Sciences	Semester 1	12.50	Subject	Study Period Commencement:	Credit Points:	SCIE90006 Scientists,Communication & the Workplace	Not offered 2011	12.50	MAST90044 Thinking and Reasoning with Data	Semester 1	12.50	Subject	Study Period Commencement:	Credit Points:	GENE90013 Advanced Genetic Research	Summer Term, Semester 1, Semester 2	12.50	GENE90015 Advanced Genetic Research	Summer Term, Semester 1, Semester 2	25	GENE90016 Advanced Genetic Research	Summer Term, Semester 1, Semester 2	37.50	GENE90017 Advanced Genetic Research	Summer Term, Semester 1, Semester 2	50
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Entry Requirements:	A bachelor degree with a major in genetics or equivalent with at least an H3 (65%) average in the major.																																													
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.																																													
Further Study:	The Research Training programs offer a pathway to a PhD.																																													

Graduate Attributes:	Graduates will:have the ability to demonstrate advanced independent critical enquiry, analysis and reflection; 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, research or project activities, problem-solving and communication; be critical and creative thinkers, with an aptitude for continued self-directed learning; be able to examine critically, synthesise and evaluate knowledge across a broad range of disciplines; have a set of flexible and transferable skills for different types of employment; andbe able to initiate and implement constructive change in their communities, including professions and workplaces.
Links to further information:	http://graduate.science.unimelb.edu.au