MC-SCIGEN Master of Science (Genetics)

Year and Campus:	2010 - Parkville
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.
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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: # 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:	Students undertaking the Master of Science (Genetics program) will complete 200 points comprising: # 25 points of Discipline subjects; # 25 points of Elective Discipline subjects; # 25 points of Professional Tools subjects; and # a 125 point Research Project. **Discipline Core subjects**: 25 points Students must take: # 652-603 Advanced Topics in Genetics A # 652-604 Advanced Topics in Genetics B Students need not complete Advanced Topics in Genetics A prior to enrolling in Advanced Topics in Genetics B. **Discipline Elective subjects**: 25 points Students must take 25 points of the following: # 600-606 Advanced Molecular Biology Techniques; # 600-608 Genomics and Bioinformatics # 600-651 Microscopy for Biological Sciences; and # 12.5 or 25 points of other approved subjects. **Professional Tools subjects**: 25 points Students must take: # 600-619 Scientists, Communication and the Workplace # 600-615 Thinking and Reasoning with Data

Research Project: 125 points

Students enrolled in the Master of Science - Genetics program are required to complete a 125 point Research Project. Students will need to discuss their proposed combination of Research Project subjects with the course coordinator to ensure they will have completed a total of 125 points by the end of their course.

652-671 Research Project - 12.5 points
652-672 Research Project - 25.0 points
652-673 Research Project - 37.5 points
652-675 Research Project - 50.0 points

Students will gain research experience in Genetics by completing:

a research proposal including a literature review (10%, with a word limit of 5,000);
a minor thesis at the end of the first year (30%, with a word limit of 8,000); and
a thesis at the end of the second year (60%, with a word limit of 15,000).

Subject Options:

Discipline Core

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

Discipline Elective

Subject	Study Period Commencement:	Credit Points:
BTCH90005 Advanced Molecular Biology Techniques	Semester 2	12.50
BTCH90009 Genomics and Bioinformatics	Semester 1	12.50
BIOL90001 Microscopy for Biological Sciences	Semester 1	12.50

Professional Tools

Subject	Study Period Commencement:	Credit Points:
SCIE90006 Scientists,Communication & the Workplace	April	12.50
MAST90044 Thinking and Reasoning with Data	Semester 1	12.50

Research Project

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

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