GENE90016 Advanced Genetic Research

Credit Points:	37.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Summer Term, Parkville - Taught on campus. Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: A total time commitment of 840 hours is expected over a two-year, full-time program. Total Time Commitment: tba
Prerequisites:	B. Sc. Major in Genetics or equivalent.
Corequisites:	None.
Recommended Background Knowledge:	None.
Non Allowed Subjects:	None.
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. This subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit.
Coordinator:	Assoc Prof Meryl Davis
Contact:	Email: m.davis@unimelb.edu.au
Subject Overview:	This subject involves laboratory or field-based experimental research in an area of Genetics. The research projects cover a broad range of research from molecular to population and evolutionary genetics in micro-organisms, insects, plants and animals. The project will be based in the laboratory of an academic staff member in the department or an approved external supervisor, depending on the particular research project. The research project aims to develop a range of experimental and technical skills, a capacity to set goals and to design and plan experiments. Apart from the help and guidance from their supervisor(s) each student also has a committee which regularly meets with them and provides additional help and expertise. This committee is responsible for assessment of the research project subject. The subject also provides students with skills and knowledge for understanding original research and enhanced written and oral communication skills. 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 Advanced Genetic Research - 12.5 points # 652-672 Advanced Genetic Research - 25.0 points # 652-673 Advanced Genetic Research - 37.5 points # 652-675 Advanced Genetic Research - 50.0 points
Objectives:	Objectives of this subject are for students to: • understand the way in which experiments in genetics are designed, communicated and interpreted; • extend their abilities in oral and written scientific communication;

	• gain the ability to read and assimilate specific research papers and to understand how the research reported relates to the broad field of genetics; • acquire experience in planning and executing laboratory or field-based experimental research; • develop effective skills in data collection and analysis, and postulating testable hypotheses based on this data. The subject involves experimental research in the area of genetics under the direction of a supervisor.
Assessment:	The assessment requirements below are applicable to the entire 125 point Research Project. One 5000 word written research proposal and literature review, due mid first semester (10%); one 8000 word written minor thesis, due at the end of first year (30%); one 15,000 word written thesis, due at the end of second year (60%).
Prescribed Texts:	None.
Recommended Texts:	None.
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	This subject should provide students with the opportunity to develop the following generic skills: • the ability to evaluate scientific literature; • the ability to use conceptual models to assess experimental data; • the ability to conduct research; • the capacity to articulate their knowledge and understanding in written and oral presentations; • the capacity for high level written report presentation skills; • the capacity for oral communication and presentation skills; • time management and self-management skills.
Related Course(s):	Master of Science (Genetics)