GENE90016 Advanced Genetic Research

Credit Points:	37.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: This subject is part of a larger research project and weekly contact hours will vary depending on the nature of the project. Total Time Commitment: Students should discuss this with their supervisor but as a guide, a student enrolled in a 50 point research project subject would be expected to be engaged in their research for an average of forty hours per week or 800 hours for the semester. Students enrolled in a 37.5, 25 or 12.5 point research subject would be expected to be engaged in their research on a pro-rata basis.
Prerequisites:	Bachelor of Science with a major in Genetics or equivalent.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
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/
Coordinator:	Dr John Golz
Contact:	Email: **jgolz@unimelb.edu.au (mailto:jgolz@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.
Learning Outcomes:	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 entire research project consists of 125 points:50 points is taken in the first year and the assessment consists of one 5,000-word written research proposal and literature review, due mid-first semester (30%); one 8,000-word written minor thesis, due at the end of first year (70%);75 points is taken in the second year and the assessment consists of one 15,000-word written thesis, due at the end of second year (90%); and an oral presentation at the end of second year (10%). Students would normally enrol in a combination of Research Project subjects to ensure they have completed 50 points in their first year and 75 points in their second year, for a total of 125 points by the end of the course.
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)
Related Majors/Minors/ Specialisations:	Genetics Genetics