

GENE20003 Experiments in Genetics

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2010, 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: 1 x one hour lecture per week, 1 x three hour practical per week, 1 x one hour computer assisted learning per week (on average). Total Time Commitment: Estimated total time commitment of 120 hours
Prerequisites:	650-142 Genetics & the Evolution of Life (/view/2010/650-142) Plus one of # 652-214 Principles of Genetics (/view/2010/652-214) (can be taken concurrently) # 652-215 Genes and Genomes (/view/2010/652-215) (can be taken concurrently) Bachelor of Biomedicine students: All of # 650-121 Biomolecules and Cells (/view/2010/650-121) # 650-122 Genes and Environment (/view/2010/650-122) # 652-214 Principles of Genetics (/view/2010/652-214) (can be taken concurrently)
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. 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.
Coordinator:	Mr Stephen Hardy
Contact:	Email: stephenh@unimelb.edu.au (mailto:stephenh@unimelb.edu.au)
Subject Overview:	The subject provides coverage of the techniques and experimental designs used in genetic, cytogenetic and molecular genetic analysis of microorganisms and higher organisms by the performance of laboratory experiments and problem analysis. Lectures emphasise the principles involved in these experiments and the wider applications of these principles and techniques.
Objectives:	Students completing this subject should have: competence in undertaking the experimental methods used in genetics; an understanding of the application of genetic principles to experimental strategies; the ability to analyse data generated from their own experiments; experience in writing scientific reports; experience in using computers for genetic exercises.
Assessment:	A written class test held mid-semester (10%); a combination of online assessment of experiments and written reports during the semester (40%); a 2-hour written examination in the examination period (50%)
Prescribed Texts:	A J Griffiths et al, Introduction to Genetic Analysis, 9th ed. W H Freeman and Co.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses:

	<p># Bachelor of Arts (https://handbook.unimelb.edu.au/view/2010/B-ARTS)</p> <p># Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2010/B-COM)</p> <p># Bachelor of Environments (https://handbook.unimelb.edu.au/view/2010/B-ENVS)</p> <p># Bachelor of Music (https://handbook.unimelb.edu.au/view/2010/B-MUS)</p> <p>You should visit learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Completion of this subject is expected to enhance the generic skills of a student in: the understanding of the relationship between theory and experimental data; the use of appropriate laboratory equipment for experiments; the assessment of data and its significance including statistical analysis; report writing; planning of work schedules to accomplish laboratory tasks and to meet deadlines; collaborative work to accomplish common goals; an understanding of laboratory safety; the application of computers for data analysis and retrieval of relevant information.
Notes:	<p>This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BAsC or a combined BSc course.</p> <p>This subject is available for credit in the Bachelor of Biomedicine course.</p> <p>Previously known as 652-216 Molecular & General Genetics Practical (prior to 2009).</p> <p>Special requirements: laboratory coat.</p>
Related Course(s):	Bachelor of Science Graduate Diploma in Biotechnology
Related Majors/Minors/ Specialisations:	Genetics