

# Genetics

<b>Year and Campus:</b>	2016																																	
<b>Coordinator:</b>	A/Prof Alex Andrianopoulos																																	
<b>Contact:</b>	<a href="mailto:alex.a@unimelb.edu.au">alex.a@unimelb.edu.au</a> (mailto:alex.a@unimelb.edu.au)																																	
<b>Overview:</b>	The Graduate Certificate allows students who have completed an undergraduate degree to re-focus or expand their body of knowledge by completing the requirement of one of the undergraduate majors (or equivalent) in the Bachelor of Science not already completed. The Graduate Certificate provides a pathway to the Master of Science Streams.																																	
<b>Learning Outcomes:</b>	<p>Students who complete the graduate certificate should:</p> <ul style="list-style-type: none"> <li># Demonstrate an independent approach to knowledge that uses rigorous methods of inquiry and appropriate theories and methodologies that are applied with intellectual honesty and a respect for ethical values;</li> <li># Apply critical and analytical skills and methods to the identification and resolution of problems;</li> <li># Act as informed and critically discriminating participants within the community of scholars, as citizens and in the work force;</li> <li># Communicate effectively;</li> <li># Commit to continuous learning;</li> <li># Be proficient in the use of appropriate modern technologies, such as the computer and other information technology systems, for the acquisition, processing and interpretation of data.</li> </ul>																																	
<b>Structure &amp; Available Subjects:</b>	<p>Completion of 62.5 points of study</p> <ul style="list-style-type: none"> <li># 50 points of study at level 3</li> <li># 12.5 points of study at level 9</li> </ul>																																	
<b>Subject Options:</b>	<p><b>Subject prerequisites:</b> For stream specific requirements please <a href="http://science.unimelb.edu.au/available-stream-requirements%20">click here (http://science.unimelb.edu.au/available-stream-requirements%20)</a> .</p> <p><b>Level 3</b></p> <p>All three of:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>GENE30001 Evolutionary Genetics and Genomics</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>GENE30002 Genes: Organisation and Function</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>GENE30004 Genetic Analysis</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Plus one elective selected from:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BCMB30001 Protein Structure and Function</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>BCMB30003 Molecular Aspects of Cell Biology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BIOL30001 Reproductive Physiology</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>BOTA30003 Environmental Plant Physiology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>CEDB30002 Concepts in Cell &amp; Developmental Biology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>ECOL30006 Ecology in Changing Environments</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	GENE30001 Evolutionary Genetics and Genomics	Semester 1	12.50	GENE30002 Genes: Organisation and Function	Semester 1	12.50	GENE30004 Genetic Analysis	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	BCMB30001 Protein Structure and Function	Semester 2	12.50	BCMB30003 Molecular Aspects of Cell Biology	Semester 1	12.50	BIOL30001 Reproductive Physiology	Semester 2	12.50	BOTA30003 Environmental Plant Physiology	Semester 1	12.50	CEDB30002 Concepts in Cell & Developmental Biology	Semester 1	12.50	ECOL30006 Ecology in Changing Environments	Semester 1	12.50
Subject	Study Period Commencement:	Credit Points:																																
GENE30001 Evolutionary Genetics and Genomics	Semester 1	12.50																																
GENE30002 Genes: Organisation and Function	Semester 1	12.50																																
GENE30004 Genetic Analysis	Semester 2	12.50																																
Subject	Study Period Commencement:	Credit Points:																																
BCMB30001 Protein Structure and Function	Semester 2	12.50																																
BCMB30003 Molecular Aspects of Cell Biology	Semester 1	12.50																																
BIOL30001 Reproductive Physiology	Semester 2	12.50																																
BOTA30003 Environmental Plant Physiology	Semester 1	12.50																																
CEDB30002 Concepts in Cell & Developmental Biology	Semester 1	12.50																																
ECOL30006 Ecology in Changing Environments	Semester 1	12.50																																

	GENE30005 Human and Medical Genetics	Semester 2	12.50
	MIIM30002 Principles of Immunology	Semester 1	12.50
	MIIM30011 Medical Microbiology: Bacteriology	Semester 1	12.50
	ZOOL30004 Evolution and the Human Condition	Semester 1	12.50
	<b>Level 9</b> Plus one level 9 subject selected from listed discipline subjects in the <b>Master of Science (Genetics)</b> ( <a href="http://graduate.science.unimelb.edu.au">../view/current/mc-scigen</a> ) program		
<b>Links to further information:</b>	<a href="http://graduate.science.unimelb.edu.au">http://graduate.science.unimelb.edu.au</a>		
<b>Related Course(s):</b>	Graduate Certificate in Science		