

BIOM20001 Molecular and Cellular Biomedicine

Credit Points:	25															
Level:	2 (Undergraduate)															
Dates & Locations:	This subject is not offered in 2014.															
Time Commitment:	Contact Hours: 99 hours: 6 x 1 hour lectures per week, 1 x 3 hour practicals/CAL per fortnight and 9 x 1 hour tutorials Total Time Commitment: 240 hours (including non-contact time)															
Prerequisites:	<p>Pre-requisites are:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOL10002 Biomolecules and Cells</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>CHEM10006 Chemistry for Biomedicine</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BIOL10003 Genes and Environment</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	BIOL10002 Biomolecules and Cells	Semester 1	12.50	CHEM10006 Chemistry for Biomedicine	Semester 1	12.50	BIOL10003 Genes and Environment	Semester 2	12.50			
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Corequisites:	None															
Recommended Background Knowledge:	The Level 1 prerequisite subjects should provide an appropriate background for this subject															
Non Allowed Subjects:	<p>Non allowed subjects:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>PATH20001 Exploring Human Disease - Science</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>BCMB20002 Biochemistry and Molecular Biology</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>CEDB20003 Fundamentals of Cell Biology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MIIM20001 Principles of Microbiology & Immunology</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	PATH20001 Exploring Human Disease - Science	Semester 2	12.50	BCMB20002 Biochemistry and Molecular Biology	Semester 1, Semester 2	12.50	CEDB20003 Fundamentals of Cell Biology	Semester 1	12.50	MIIM20001 Principles of Microbiology & Immunology	Semester 1	12.50
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Core Participation Requirements:	<p><p>For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.</p> <p>It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability</p></p>															
Contact:	<p>Subject Coordinator Assoc Prof Robb de longh r.delongh@unimelb.edu.au (mailto:r.deiongh@unimelb.edu.au) Administrative Coordinator Ms Hong Nguyen BiomedSci-AcademicServices@unimelb.edu.au (mailto:BiomedSci-AcademicServices@unimelb.edu.au)</p>															
Subject Overview:	The subject introduces students to the molecular and cellular aspects of biological systems, with particular emphasis on human biology. The course is arranged for students to develop an understanding of the molecular aspects of biology at the biomolecular, sub-cellular and															

	cellular level, leading to systems biology at an organismal level. This includes an understanding of the molecular and cellular basis of infections and host cell responses. The subject is multi-disciplinary being co-taught by staff in the departments of Anatomy & Neuroscience, Biochemistry & Molecular Biology, Genetics, Microbiology & immunology, and Pathology. There is particular emphasis on integration of these disciplines, with students receiving both theoretical and practical knowledge of fundamental research and development at the frontiers of these areas.
Learning Outcomes:	This multidisciplinary subject is expected to provide an understanding of: <ul style="list-style-type: none"> # The building blocks of life; # How the building blocks fit together in both prokaryotic and eukaryotic cells and biological systems; # The molecular and cellular basis of infection, immunological response and pathological changes; and # The experimental means by which the building blocks, cells and systems can be studied.
Assessment:	5 x continuous assessment exercises during semester - 10% (2% each) 2 x intra-semester tests during semester - 20% (10% each) 2 x 2 hour examinations during the exam period - 70% (35% each)
Prescribed Texts:	Alberts B, Johnson A, Lewis J, Raff M, Roberts K, Walter P, "Molecular Biology of the Cell", 5th Edition
Recommended Texts:	These individual texts are strongly recommended if you intend to pursue further study in the respective area: <ul style="list-style-type: none"> · Nelson D, Cox M, "Lehninger Principles of Biochemistry", 6th edition · Griffiths AJF et al., "Introduction to Genetic Analysis", 10th edition · Engleberg NC et al., "Schaechter's Mechanisms of Microbial Disease" 4th edition · Kumar V et al., 'Robbins Basic Pathology', 8th edition
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:	Completion of this subject is expected to provide students with the following skills: <ul style="list-style-type: none"> # Familiarity with molecular and cell biology techniques # The capacity to integrate knowledge across disciplines # The ability to critically analyse scientific data
Notes:	This subject is only available to students enrolled in the Bachelor of Biomedicine. Students undertaking this unit should have access to an internet-enabled computer.
Related Course(s):	Bachelor of Biomedicine
Related Majors/Minors/Specialisations:	Zoology