BIOM20001 Molecular and Cellular Biomedicine

Credit Points:	25
Level:	2 (Undergraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
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: 340 hours (including non-contact time)
Prerequisites:	Pre-requisites are:

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

Corequisites:	None
Recommended Background Knowledge:	The Level 1 prerequisite subjects should provide an appropriate background for this subject
Non Allowed Subjects:	Non allowed subjects:

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

Core Participation Requirements:	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. 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
Coordinator:	Assoc Prof Robb De Iongh
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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 and understanding of: # 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: · 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: # 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. B-BMED students who fail this subject with a mark of 45-49%, who do not fail any other subjects in the same semester may be eligible for a progression supplementary exam for this subject in line with the **Assessment Procedure (https://policy.unimelb.edu.au/MPF1026)** (point 15). Students will be contacted via email by the University Results final release date if they are eligible.
Related Course(s):	Bachelor of Biomedicine

Related Majors/Minors/ Specialisations:	Zoology Zoology