

MIIM20001 Principles of Microbiology & Immunology

Credit Points:	12.50									
Level:	2 (Undergraduate)									
Dates & Locations:	This subject is not offered in 2013.									
Time Commitment:	Contact Hours: 36 lectures (three per week); 12 computer based tutorials (one per week); 2 x 1.5 hrs practical sessions located in weeks 11 and 12 Total Time Commitment: 120 hours									
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>BIOL10004 Biology of Cells and Organisms</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>BIOL10005 Genetics & The Evolution of Life</td> <td>Not offered 2013</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	BIOL10004 Biology of Cells and Organisms	Not offered 2013	12.50	BIOL10005 Genetics & The Evolution of Life	Not offered 2013	12.50
Subject	Study Period Commencement:	Credit Points:								
BIOL10004 Biology of Cells and Organisms	Not offered 2013	12.50								
BIOL10005 Genetics & The Evolution of Life	Not offered 2013	12.50								
Corequisites:	None									
Recommended Background Knowledge:	The prerequisite subjects should have provided an appropriate background for this subject.									
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/									
Contact:	<p>Academic Coordinators Dr Karena Waller klwaller@unimelb.edu.au (mailto:klwaller@unimelb.edu.au) Associate Professor Jason Mackenzie jason.mackenzie@unimelb.edu.au (mailto:jason.mackenzie@unimelb.edu.au) Administrative Coordinator Ms Chantelle Linnett BiomedSci-AcademicServices@unimelb.edu.au (mailto:BiomedSci-AcademicServices@unimelb.edu.au)</p>									
Subject Overview:	<p>This subject introduces students to the excitingly diverse world of microbes and discusses the roles they play not only in causing infectious disease but also in both creating and maintaining life as we know it. Various types of microbes and their basic life processes are described, with the focus mainly on bacteria and viruses. Bacterial genetics and metabolism are explored, with the emphasis on how these areas determine observed behaviours and activities. The components of the immune system are outlined and their interactions and functions described.</p> <p>A central part of this subject is outlining some of the strategies used by microbes to cause disease, and the counter strategies employed by the immune system to prevent disease. Other ways of controlling microbes, including antibiotics and vaccines are also discussed. The key roles played by microbes and the immune system in medical and biotechnological research is described. This subject provides students intending to specialize in the biological sciences with an understanding of the basic concepts in the disciplines of both Microbiology and Immunology.</p>									
Objectives:	Upon completion of this subject, students should:									

	<ul style="list-style-type: none"> # be familiar with the terminology used by microbiologists and immunologists and have acquired a broad foundation for future subjects in microbiology and immunology; # appreciate the importance of microbiology and immunology in the fields of medicine, genetics and biotechnology; # have insight into the type of investigations fundamental to the development of basic microbiological concepts; # be able to describe simple microbial life processes; and understand how these processes are involved in infectious disease and interactions with hosts' immune systems, adaptation and survival of microorganisms and the promotion or control of microbial growth; # understand the different properties of Bacteria, Archaea and eukaryotic microbial cells and viruses and the significance of all these microorganisms in the environment.
Assessment:	A 40 minute multiple choice examination held mid-semester (20%); A 3 hour written examination in the end of semester exam period (68%); On-going computer based assessment during semester (10%) Computer based assessment of practical in weeks 11 and 12 (2%)
Prescribed Texts:	None
Recommended Texts:	<ul style="list-style-type: none"> • Prescott, Harley and Klein's Microbiology, Willey J, Sherwood L, Woolverton C. 8th edn, 2011 • Molecular Biology of the Cell, Alberts et al, 5th edn, 2008
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2013/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2013/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2013/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2013/B-MUS) <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:	<p>Upon completion of this subject, students should have developed the following generic skills:</p> <ul style="list-style-type: none"> # An enhanced ability to seek information from textbooks and computer based sources; # The ability to comprehend a question, evaluate the relevant information and communicate an answer in writing;and # The ability to manage time effectively to ensure attendance at lectures and examinations.
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 not available to students enrolled in the Bachelor of Biomedicine.</p>
Related Course(s):	Bachelor of Biomedicine
Related Majors/Minors/Specialisations:	Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses Science-credited subjects - new generation B-SCI and B-ENG. Core selective subjects for B-BMED.
Related Breadth Track(s):	Microbiology and immunology