MIIM20001 Principles of Microbiology & Immunology

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.
Time Commitment:	Contact Hours: 36 lectures (three per week); 12 computer based tutorials (one per week) Total Time Commitment: 120 hours
Prerequisites:	Pre-requisites are:

Subject	Study Period Commencement:	Credit Points:
BIOL10004 Biology of Cells and Organisms	Semester 1	12.50
BIOL10005 Genetics & The Evolution of Life	Semester 2	12.50

Corequisites:	None
Recommended Background Knowledge:	The prerequisite subjects should have provided an appropriate background for this subject.
Non Allowed Subjects:	Non allowed subject:

Subject	Study Period Commencement:	Credit Points:
MIIM20002 Microbes, Infections and Responses	Semester 2	12.50

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/
Coordinator:	Dr Karena Waller, Ms Cheryl Power
Contact:	Ms Cheryl Power: **cheryljp@unimelb.edu.au (mailto:cheryljp@unimelb.edu.au)** Administrative Coordinator: Corliss Chan
Subject Overview:	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 explain determine observed behaviours and activities. The components of the immune system are outlined and their interactions and functions described. A central part of this subject is showing how microbes are involved in infectious disease and how they interact with the human immune system. Strategies used by microbes to cause disease and counter strategies used to prevent disease are discussed, including the role of the innate and acquired immune response, the use of sterilization and disinfection procedures, and antibiotics and vaccines. The use of microbes in underpinning much of the vital research in the areas of medicine, public health and biotechnology is also described, as is the role of the

	immune response, so providing students intending to specialise in other biological sciences with an understanding of the basic concepts of both disciplines.
Objectives:	Upon completion of this subject, students should: # have acquired a broad foundation for future subjects in microbiology and immunology; # appreciate the importance of microbiology and immunology in the fields of medicine, public health, genetics and biotechnology; # be familiar with the terminology used by microbiologists and immunologists; # 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; # be able to describe the comparative properties of Bacteria, Archaea and eukaryotic microbial cells and viruses; # understand the signficance 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 (70%);On going computer based assessment during semester (10%)
Prescribed Texts:	None
Recommended Texts:	LM Prescott, JP Harley and DA Klein, Microbiology, 7th edn, 2007
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2010/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2010/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2010/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2010/B-MUS)** 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.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Upon completion of this subject, students should have developed the following generic skills: # 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:	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. This subject is not available to students enrolled in the Bachelor of Biomedicine.
Related Course(s):	Bachelor of Science Graduate Diploma in Biotechnology