

# MIIM20001 Principles of Microbiology & Immunology

<b>Credit Points:</b>	12.50									
<b>Level:</b>	2 (Undergraduate)									
<b>Dates &amp; Locations:</b>	2012, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.									
<b>Time Commitment:</b>	Contact Hours: 36 lectures (three per week); 12 computer based tutorials (one per week) Total Time Commitment: 120 hours									
<b>Prerequisites:</b>	Pre-requisites are: <table border="1" data-bbox="387 573 1485 779"> <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>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BIOL10005 Genetics &amp; The Evolution of Life</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	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
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BIOL10004 Biology of Cells and Organisms	Semester 1	12.50								
BIOL10005 Genetics & The Evolution of Life	Semester 2	12.50								
<b>Corequisites:</b>	None									
<b>Recommended Background Knowledge:</b>	The prerequisite subjects should have provided an appropriate background for this subject.									
<b>Non Allowed Subjects:</b>	Non allowed subject: <table border="1" data-bbox="387 976 1485 1126"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MIIM20002 Microbes, Infections and Responses</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	MIIM20002 Microbes, Infections and Responses	Semester 2	12.50			
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<b>Core Participation Requirements:</b>	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: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>									
<b>Coordinator:</b>	Dr Karena Waller, Ms Cheryl Power									
<b>Contact:</b>	Academic Coordinators Ms Cheryl Power: <a href="mailto:cheryljp@unimelb.edu.au">cheryljp@unimelb.edu.au</a> (mailto:cheryljp@unimelb.edu.au) Dr Karena Waller <a href="mailto:klwaller@unimelb.edu.au">klwaller@unimelb.edu.au</a> (mailto:klwaller@unimelb.edu.au) Administrative Coordinator Ms Chantelle Linnett <a href="mailto:BiomedSci-AcademicServices@unimelb.edu.au">BiomedSci-AcademicServices@unimelb.edu.au</a> (mailto:BiomedSci-AcademicServices@unimelb.edu.au)									
<b>Subject Overview:</b>	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.									

	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 sterilization and disinfection, antibiotics, vaccines and public health measures, 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.
<b>Objectives:</b>	<p>Upon completion of this subject, students should:</p> <ul style="list-style-type: none"> <li># be familiar with the terminology used by microbiologists and immunologists and have acquired a broad foundation for future subjects in microbiology and immunology;</li> <li># appreciate the importance of microbiology and immunology in the fields of medicine, public health, genetics and biotechnology;</li> <li># have insight into the type of investigations fundamental to the development of basic microbiological concepts;</li> <li># 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;</li> <li># understand the different properties of Bacteria, Archaea and eukaryotic microbial cells and viruses and the significance of all these microorganisms in the environment.</li> </ul>
<b>Assessment:</b>	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%)
<b>Prescribed Texts:</b>	None
<b>Recommended Texts:</b>	Prescott, Harley and Klein's Microbiology, Willey J, Sherwood L, Woolverton C. 8th edn, 2010
<b>Breadth Options:</b>	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> <li># <b>Bachelor of Arts</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-ARTS">https://handbook.unimelb.edu.au/view/2012/B-ARTS</a>)</li> <li># <b>Bachelor of Commerce</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-COM">https://handbook.unimelb.edu.au/view/2012/B-COM</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-ENVS">https://handbook.unimelb.edu.au/view/2012/B-ENVS</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-MUS">https://handbook.unimelb.edu.au/view/2012/B-MUS</a>)</li> </ul> <p>You should visit <b>learn more about breadth subjects</b> (<a href="http://breadth.unimelb.edu.au/breadth/info/index.html">http://breadth.unimelb.edu.au/breadth/info/index.html</a>) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<p>Upon completion of this subject, students should have developed the following generic skills:</p> <ul style="list-style-type: none"> <li># An enhanced ability to seek information from textbooks and computer based sources;</li> <li># The ability to comprehend a question, evaluate the relevant information and communicate an answer in writing;and</li> <li># The ability to manage time effectively to ensure attendance at lectures and examinations.</li> </ul>
<b>Notes:</b>	<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>
<b>Related Course(s):</b>	Bachelor of Biomedicine
<b>Related Majors/Minors/Specialisations:</b>	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.
<b>Related Breadth Track(s):</b>	Microbiology and immunology