

# MIIM30002 Principles of Immunology

<b>Credit Points:</b>	12.5																																	
<b>Level:</b>	3 (Undergraduate)																																	
<b>Dates &amp; Locations:</b>	2016, 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 a week) Total Time Commitment: 170 hours																																	
<b>Prerequisites:</b>	<p><b>B. Science students (pre 2013)</b> Prerequisite subjects are both:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MIIM20001 Principles of Microbiology &amp; Immunology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MIIM20003 Experimental Microbiology</td> <td>Not offered 2016</td> <td>12.50</td> </tr> </tbody> </table> <p>B. Sc. students who have taken MIIM20001 Principles in Microbiology and Immunology BUT NOT MIIM20003 Experimental Microbiology MAY be admitted to this subject after discussion with and specific permission from the subject coordinators.</p> <p>Additionally, B.Sci students who have completed BCMB20002 BUT NOT MIIM20001 may be admitted to this subject after discussion with and specific permission from the subject coordinators.</p> <p><b>BSc Students (2013 on):</b> One of:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MIIM20001 Principles of Microbiology &amp; Immunology</td> <td>Semester 1</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> </tbody> </table> <p><b>B. Biomedicine students (pre 2013):</b> Prerequisite subjects are both:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOM20001 Molecular and Cellular Biomedicine</td> <td>Semester 1</td> <td>25</td> </tr> <tr> <td>MIIM20002 Microbes, Infections and Responses</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p><b>B. Biomedicine students (2013 on):</b></p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOM20001 Molecular and Cellular Biomedicine</td> <td>Semester 1</td> <td>25</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	MIIM20001 Principles of Microbiology & Immunology	Semester 1	12.50	MIIM20003 Experimental Microbiology	Not offered 2016	12.50	Subject	Study Period Commencement:	Credit Points:	MIIM20001 Principles of Microbiology & Immunology	Semester 1	12.50	BCMB20002 Biochemistry and Molecular Biology	Semester 1, Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25	MIIM20002 Microbes, Infections and Responses	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25
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<b>Corequisites:</b>	None																																	
<b>Recommended Background Knowledge:</b>	The 200 level prerequisite subjects should have provided a solid background in Microbiology and Immunology. An understanding of the molecules, genes and biology of the cell is important.																																	
<b>Non Allowed Subjects:</b>	None																																	

<b>Core Participation Requirements:</b>	<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: <a href="http://services.unimelb.edu.au/disability">http://services.unimelb.edu.au/disability</a></p>
<b>Coordinator:</b>	Dr Odilia Wijburg, Prof Andrew Brooks
<b>Contact:</b>	<p>Subject Coordinators Prof. Andrew Brooks <b><a href="mailto:agbrooks@unimelb.edu.au">agbrooks@unimelb.edu.au</a> (mailto:agbrooks@unimelb.edu.au)</b></p> <p>Dr. Odilia Wijburg <b><a href="mailto:odilia@unimelb.edu.au">odilia@unimelb.edu.au</a> (mailto:odilia@unimelb.edu.au)</b></p> <p>Administrative Coordinator <b><a href="mailto:BiomedSci-AcademicServices@unimelb.edu.au">BiomedSci-AcademicServices@unimelb.edu.au</a> (mailto:BiomedSci-AcademicServices@unimelb.edu.au)</b></p>
<b>Subject Overview:</b>	This subject will describe the development, function and regulation of cells of the immune system; immunoglobulins; cytokines; immunological mechanisms operating in immunity to infectious disease; autoimmunity; hypersensitivity; and transplantation and tumour immunology.
<b>Learning Outcomes:</b>	<p>By the completion of the subject the students should understand and be able to describe:</p> <ul style="list-style-type: none"> <li># the development, function and regulation of cells of the immune system;</li> <li># the relationship between structure and function of antibodies;</li> <li># the molecular and cellular basis of recognition of antigen by T cells;</li> <li># the molecular and cellular basis of innate immune responses;</li> <li># the basis of immune mechanisms underlying immunity to infection and autoimmune disease, hypersensitivity reactions, immunodeficiency diseases and transplant and tumour rejection.</li> </ul>
<b>Assessment:</b>	2 X 45 min written examinations held at around Week 5 and Week 10 of semester (2 X 20%) A 2 hour written examination held in the examination period (60%)
<b>Prescribed Texts:</b>	Janeway's Immunobiology (Murphy et al) 8th Edn, 2012
<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/2016/B-ARTS">https://handbook.unimelb.edu.au/view/2016/B-ARTS</a>)</li> <li># <b>Bachelor of Commerce</b> (<a href="https://handbook.unimelb.edu.au/view/2016/B-COM">https://handbook.unimelb.edu.au/view/2016/B-COM</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2016/B-ENVS">https://handbook.unimelb.edu.au/view/2016/B-ENVS</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2016/B-MUS">https://handbook.unimelb.edu.au/view/2016/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>On completion of this subject, students should have developed the following generic skills:</p> <ul style="list-style-type: none"> <li># the ability to interpret scientific literature and interpret data from electronic databases.</li> <li># the capacity to integrate knowledge across disciplines.</li> </ul>

	# the ability to comprehend a question, evaluate the relevant information and communicate an answer.
<b>Notes:</b>	<p>This subject is available to students enrolled in the:</p> <p>NG B. Sc. NG B. Biomed</p> <p>Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject.</p>
<b>Related Majors/Minors/ Specialisations:</b>	<p>Animal Cell Biology (specialisation of Cell and Developmental Biology major) Biomedical Biotechnology (specialisation of Biotechnology major) Biotechnology (pre-2008 Bachelor of Science) Cell Biology (pre-2008 Bachelor of Science) Genetics Genetics Genetics Genetics Genetics Immunology Immunology (pre-2008 Bachelor of Science) Infection and Immunity Microbiology (pre-2008 Bachelor of Science) Reproduction and Development (specialisation of Cell and Developmental Biology major) Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED</p>
<b>Related Breadth Track(s):</b>	Microbiology and immunology