

MIIM30014 Medical Microbiology: Virology

Credit Points:	12.5																											
Level:	3 (Undergraduate)																											
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.																											
Time Commitment:	Contact Hours: 3 x one hour lectures per week (total contact hours: 36) Total Time Commitment: 170 hours																											
Prerequisites:	<p>B. Science students (pre 2013) 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 & Immunology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MIIM20003 Experimental Microbiology</td> <td>Not offered 2015</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>B. Science students (2013 on) 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 & Immunology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MIIM20002 Microbes, Infections and Responses</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>B. Biomedicine students (2009 on) 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>	Subject	Study Period Commencement:	Credit Points:	MIIM20001 Principles of Microbiology & Immunology	Semester 1	12.50	MIIM20003 Experimental Microbiology	Not offered 2015	12.50	Subject	Study Period Commencement:	Credit Points:	MIIM20001 Principles of Microbiology & Immunology	Semester 1	12.50	MIIM20002 Microbes, Infections and Responses	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
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Corequisites:	None																											
Recommended Background Knowledge:	The 200 and 300 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.																											
Non Allowed Subjects:	526-314 Medical Microbiology: Viruses (pre 2010) 526-333 Viruses and Other Parasites (pre 2010) MIIM30014 Viruses and Other Parasites (pre 2011)																											
Core Participation Requirements:	<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																											

	<p>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</p></p>
Coordinator:	Assoc Prof Jason Mackenzie, Prof Damian Purcell, Prof Lorena Brown
Contact:	<p>Subject Coordinators Assoc Prof Damian Purcell dfjp@unimelb.edu.au (mailto:dfjp@unimelb.edu.au) Assoc Prof Jason Mackenzie jason.mackenzie@unimelb.edu.au (mailto:jason.mackenzie@unimelb.edu.au) Prof Lorena Brown lorena@unimelb.edu.au (mailto:lorena@unimelb.edu.au) Administrative Coordinator BiomedSci-AcademicServices@unimelb.edu.au (mailto:BiomedSci-AcademicServices@unimelb.edu.au)</p>
Subject Overview:	<p>This subject describes how medically important viruses interact with their hosts to cause infection.</p> <p>The subject will cover the strategies that different groups of viruses employ to replicate in host cells, and their mechanisms for manipulating cellular biochemistry for their own ends. The different outcomes possible for both the virus and the host cell, including clearance, persistence, carcinogenesis, and immunodeficiency, will be discussed. Also covered will be how viruses may be transmitted and detected, and the pathogenic process. The host immune response to infection and the various mechanisms used by viruses to evade the host's defences will also be explored. Chemotherapeutic and vaccine strategies to control viral infection, as well as the exploitation of viruses as vectors for vaccine and gene therapy applications, will also be examined. These topics will be further illustrated by discussing the features of a range of medically important viruses.</p>
Learning Outcomes:	<p>Upon completion of this subject, students should be able to:</p> <ul style="list-style-type: none"> # understand fundamental concepts of viral replication, pathogenesis and transmission # understand how viruses interact with host target cells and with host defence mechanisms # apply relevant knowledge of replication, pathogenesis, immunity and epidemiology of viruses to the determination of appropriate control strategies
Assessment:	2 x 45 minute written examination held around weeks 5 and 10 of semester (2 x 20%). A 2 hour written examination held in the examination period (60%)
Prescribed Texts:	Principles of Virology, Flint SJ et al., 3rd Edn 2009 (two volumes)
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/2015/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2015/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2015/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2015/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:	On completion of this subject, students should have developed the following generic skills:

	<ul style="list-style-type: none"> # the ability to interpret scientific literature and interpret data from electronic databases. # the capacity to integrate knowledge across disciplines. # the ability to comprehend a question, evaluate the relevant information and communicate an answer.
Notes:	<p>This subject is available to students enrolled in the:</p> <p>NG B. Sc. NG B. Biomed</p>
Related Majors/Minors/ Specialisations:	<p>Animal Disease Biotechnology (specialisation of Animal Health and Disease major) Defence and Disease Immunology Immunology (pre-2008 Bachelor of Science) Infection and Immunity Microbiology Microbiology (pre-2008 Bachelor of Science) Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED</p>