# MIIM20002 Microbes, Infections and Responses

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| **Credit Points:** | 12.50 |
| **Level:** | 2 (Undergraduate) |
| **Dates & Locations:** | 2011, Parkville<br>This subject commences in the following study period/s:<br>Semester 2, Parkville - Taught on campus. |
| **Time Commitment:** | Contact Hours: 36 hours of lectures and 12 X 2 hour practical classes = 60 hours total Total Time Commitment: 120 hours |
| **Prerequisites:** | Passes in 1st year Biology and the following two subjects: |

| Subject | Study Period Commencement: | Credit Points: |
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| CHEM10006 Chemistry for Biomedicine | Semester 1 | 12.50 |
| BIOM20001 Molecular and Cellular Biomedicine | Semester 1 | 25 |

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| **Corequisites:** | None |
| **Recommended Background Knowledge:** | The prerequisite subjects provide an appropriate background for this subject. |
| **Non Allowed Subjects:** | Non allowed subjects: |

| Subject | Study Period Commencement: | Credit Points: |
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| MIIM20001 Principles of Microbiology & Immunology | Semester 1 | 12.50 |
| MIIM20003 Experimental Microbiology | Semester 1, Semester 2 | 12.50 |

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| **Core Participation Requirements:** | It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. This subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit: http://www.services.unimelb.edu.au/disability/ |
| **Coordinator:** | Mrs Helen Cain, Mrs Sandra Uren, Prof Lorena Brown |
| **Contact:** | Mrs Helen Cain<br>**hmcain@unimelb.edu.au (mailto:hmcain@unimelb.edu.au)**<br>Mrs Sandra Uren<br>**sandraju@unimelb.edu.au (mailto:sandraju@unimelb.edu.au)**<br>Prof Lorena Brown**lorena@unimelb.edu.au (mailto:lorena@unimelb.edu.au)**<br>Administrative Coordinator:<br>Ms Chantelle Linnett<br>**BiomedSci-AcademicServices@unimelb.edu.au (mailto:BiomedSci-AcademicServices@unimelb.edu.au)** |
| **Subject Overview:** | This subject describes how microbes (bacteria, viruses, fungi and parasites) cause infections in humans, and how our immune system responds. The characteristics of some of the pathogens which cause respiratory, gastrointestinal, sexually transmissible diseases and hospital acquired infections, are discussed together with the body's immune response to these pathogens, and the design of appropriate interventions, including vaccines and antibodies. The community and |

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| | public health response is also described so that the interaction between pathogen, host and environment can be seen.<br>This is a fully integrated course, that is, the lecture and the practical course build on, and support, each other. The practical course comprises a series of case studies which illustrate and revise material covered in the lectures. |
| **Objectives:** | Upon completion of this subject, students should be able to:<br># Describe the characteristics of some important pathogens<br># Describe the mechanisms by which microorganisms initiate infection and by which the immune response controls infection<br># Describe some of the ways in which infectious disease can be controlled in individuals and in communities, including the use of antimicrobial agents and vaccines, and<br># Perform basic microbiological techniques safely and effectively and recognise the clinical applications of these techniques |
| **Assessment:** | Written practical reports throughout semester (20%), A 40-minute multiple choice question test mid semester (20%), A 2-hour written exam in the end of the semester examination period (60%). Attendance is compulsory. Students who miss more than 20% of the practical component of this subject will not be eligible for final assessment |
| **Prescribed Texts:** | Schaechter's Mechanisms of Microbial Disease (N C Engleberg, V DiRita and T S Dermody), 4th Edn, 2006 |
| **Breadth Options:** | This subject is not available as a breadth subject. |
| **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:<br># An ability to interpret scientific literature.<br># The capacity to integrate knowledge across disciplines.<br># An ability to critically analyse scientific data. |
| **Notes:** | This course is only available to students enrolled in the Bachelor of Biomedicine. |
| **Related Course(s):** | Bachelor of Biomedicine |
| **Related Majors/Minors/ Specialisations:** | Defence and Disease |