

# PATH30001 Mechanisms of Human Disease

<b>Credit Points:</b>	12.50																								
<b>Level:</b>	3 (Undergraduate)																								
<b>Dates &amp; Locations:</b>	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.																								
<b>Time Commitment:</b>	Contact Hours: 36 lectures (3 per week) Total Time Commitment: 120 hours (10 hours per week)																								
<b>Prerequisites:</b>	<p>B. Science students:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>PATH20001 Exploring Human Disease - Science</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>and</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BCMB20002 Biochemistry and Molecular Biology</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p>and</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BCMB20005 Techniques in Molecular Science</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>B. Biomedicine students:</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> <p>B. Biomedical Science students: 531-201 Basic Principles of Pathology (pre-2009)</p>	Subject	Study Period Commencement:	Credit Points:	PATH20001 Exploring Human Disease - Science	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	BCMB20002 Biochemistry and Molecular Biology	Semester 1	12.50	Subject	Study Period Commencement:	Credit Points:	BCMB20005 Techniques in Molecular Science	Semester 1, Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25
Subject	Study Period Commencement:	Credit Points:																							
PATH20001 Exploring Human Disease - Science	Semester 2	12.50																							
Subject	Study Period Commencement:	Credit Points:																							
BCMB20002 Biochemistry and Molecular Biology	Semester 1	12.50																							
Subject	Study Period Commencement:	Credit Points:																							
BCMB20005 Techniques in Molecular Science	Semester 1, Semester 2	12.50																							
Subject	Study Period Commencement:	Credit Points:																							
BIOM20001 Molecular and Cellular Biomedicine	Semester 1	25																							
<b>Corequisites:</b>	Students wanting to complete a Major in Pathology must enrol in 531-302 Techniques for Investigation of Disease as a co-requisite with 531-301 Mechanisms of Human Disease. Students completing other majors may enrol in 531-301 without 531-302.																								
<b>Recommended Background Knowledge:</b>	<p>For B.Science students: any of the following subjects would be helpful for your studies in Pathology -</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BCMB30001 Protein Structure and Function</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>BCMB30002 Functional Genomics and Bioinformatics</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>BCMB30003 Molecular Aspects of Cell Biology</td> <td>March</td> <td>12.50</td> </tr> <tr> <td>MIIM30011 Molecular and Medical Microbiology</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MIIM30003 Medical and Applied Immunology</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>You could also consider other subjects offered by the Anatomy and Cell Biology or Pharmacology departments.</p>	Subject	Study Period Commencement:	Credit Points:	BCMB30001 Protein Structure and Function	Semester 2	12.50	BCMB30002 Functional Genomics and Bioinformatics	Semester 1	12.50	BCMB30003 Molecular Aspects of Cell Biology	March	12.50	MIIM30011 Molecular and Medical Microbiology	Semester 1	12.50	MIIM30003 Medical and Applied Immunology	Semester 2	12.50						
Subject	Study Period Commencement:	Credit Points:																							
BCMB30001 Protein Structure and Function	Semester 2	12.50																							
BCMB30002 Functional Genomics and Bioinformatics	Semester 1	12.50																							
BCMB30003 Molecular Aspects of Cell Biology	March	12.50																							
MIIM30011 Molecular and Medical Microbiology	Semester 1	12.50																							
MIIM30003 Medical and Applied Immunology	Semester 2	12.50																							
<b>Non Allowed Subjects:</b>	None																								
<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 Margaret Ayers
<b>Contact:</b>	Dr Margaret Ayers: <a href="mailto:m.ayers@unimelb.edu.au">m.ayers@unimelb.edu.au</a> ( <a href="mailto:m.ayers@unimelb.edu.au">mailto:m.ayers@unimelb.edu.au</a> ) Dr John Underwood: <a href="mailto:johnru@unimelb.edu.au">johnru@unimelb.edu.au</a> ( <a href="mailto:johnru@unimelb.edu.au">mailto:johnru@unimelb.edu.au</a> )  Administrative Coordinator: Mrs Katrina Rush
<b>Subject Overview:</b>	This subject extends the concepts and examination of disease commenced in the second year subject 'Exploring Human Disease', with a focus on the following areas: cellular and molecular aspects of acute and chronic inflammatory diseases, a detailed analysis of the linkage between the acute inflammatory response and the innate and adaptive immune systems using immunodeficiency diseases as a model, immune-mediated disease, the effect of injury on the gastro-intestinal, renal and central nervous systems, genetic disorders, developmental and degenerative diseases and cancer.
<b>Objectives:</b>	On completion of this subject students should have: <ul style="list-style-type: none"> <li># extended and deepened their understanding of the fundamental concepts involved in Pathology, begun in second year.</li> <li># developed an understanding of the cellular and molecular bases of a variety of disease processes and their relationship to normal cellular and molecular structure and function.</li> <li># considered both theoretical and practical ways in which research questions about these disease processes are formulated and investigated</li> </ul>
<b>Assessment:</b>	Two multiple choice question tests during the semester (20%) each; A 3 hour written examination in the examination period (60%).
<b>Prescribed Texts:</b>	Kumar V. et al., Robbins and Cotran Pathologic Basis of Disease, latest edition, Saunders Elsevier.
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<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>	At the end of this subject students should have developed the following skills: <ul style="list-style-type: none"> <li># the ability to understand and link complex overlapping and related ideas.</li> <li># the ability to source, organise, read and understand reference material which covers a wide range of related and diverse topics about disease.</li> <li># the ability to ask questions about complex processes which are currently under active investigation.</li> </ul>
<b>Notes:</b>	<ul style="list-style-type: none"> <li># Science and Biomedicine students intending to take a major in Pathology are required to enrol in both 531-301 Mechanisms of Human Disease and 531-302 Techniques for Investigation of Disease. Science students must be familiar with the content of 531-201 Exploring Human Disease and have passes in the two 200-level Biochemistry prerequisites. Biomedicine students must be familiar with the Pathology and Biochemistry components of their 200-level core subject Molecular and Cellular Biomedicine.</li> <li># Science students who do not want to do a Major in Pathology and do not have the Biochemistry prerequisites will be considered for entry into this subject on a case-by-case basis if they have appropriate marks in equivalent biomedical subjects.</li> <li># This subject is available to both B.Science and B.Biomedicine students.</li> <li># B.Biomedicine students doing a Defence &amp; Disease major MUST consult the Major Information Booklet for additional corequisite choices.</li> </ul>

<b>Related Course(s):</b>	Bachelor of Science Graduate Diploma in Biotechnology
<b>Related Majors/Minors/ Specialisations:</b>	Animal Cell Biology Cell Biology Defence and Disease Human Structure and Function Human Structure and Function Pathology Pathology Pathology Physiology