

## BTCH20002 Biotechnology

<b>Credit Points:</b>	12.5												
<b>Level:</b>	2 (Undergraduate)												
<b>Dates &amp; Locations:</b>	2016, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.												
<b>Time Commitment:</b>	Contact Hours: Lectures: 12 x 2 hours, Forums: 4 x 3 hours, Tutorials: 12 x 1 hour Total Time Commitment: Estimated total time commitment (including non-contact time): 110 hours												
<b>Prerequisites:</b>	<table border="1"> <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> </tbody> </table> <p>OR</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOL10002 Biomolecules and Cells</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	BIOL10004 Biology of Cells and Organisms	Semester 1	12.50	Subject	Study Period Commencement:	Credit Points:	BIOL10002 Biomolecules and Cells	Semester 1	12.50
Subject	Study Period Commencement:	Credit Points:											
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BIOL10002 Biomolecules and Cells	Semester 1	12.50											
<b>Corequisites:</b>	None												
<b>Recommended Background Knowledge:</b>	None												
<b>Non Allowed Subjects:</b>	None												
<b>Core Participation Requirements:</b>	Students undertaking this subject will be expected to regularly access an internet-enabled computer. 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 website: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>												
<b>Coordinator:</b>	Prof Prem Bhalla												
<b>Contact:</b>	Email: <a href="mailto:premlb@unimelb.edu.au">premlb@unimelb.edu.au</a> ( <a href="mailto:premlb@unimelb.edu.au">mailto:premlb@unimelb.edu.au</a> )												
<b>Subject Overview:</b>	This course focuses on exploring and understanding the science underpinning the biotechnology revolution. Principles of molecular, cellular and process engineering are explained, and their applications in industry, agriculture, and medicine surveyed. Forums on currently active topics feature invited industry speakers.												
<b>Learning Outcomes:</b>	By the end of the subject students should have: <ul style="list-style-type: none"> <li># Acquired knowledge of the basic principles of biotechnology for manipulation of microbe, plant and animal characteristics, and molecular biology, genome science and bioengineering that underpin new developments in biotechnology</li> <li># Developed an understanding of local and global issues in biotechnology in relation to human welfare, environmental health and sustainable agriculture</li> </ul>												
<b>Assessment:</b>	Up to four written assignments of less than 2000 words in total throughout the semester worth 25% A one-hour written test in approximately Week 6 worth 15% A two-hour written end-of-semester examination worth 60%												
<b>Prescribed Texts:</b>	None												

<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> <li># The ability to comprehend a question, evaluate the relevant information and communicate an answer</li> </ul>
<b>Notes:</b>	The course will include four seminar sessions on currently active areas of biotechnology, which provide a forum for student discussion of implications for the community of new technologies.
<b>Related Majors/Minors/Specialisations:</b>	Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED
<b>Related Breadth Track(s):</b>	Biotechnology