

## BTCH30001 Methods in Agrifood Biotechnology

<b>Credit Points:</b>	12.5									
<b>Level:</b>	3 (Undergraduate)									
<b>Dates &amp; Locations:</b>	This subject is not offered in 2016.									
<b>Time Commitment:</b>	Contact Hours: 12 lectures (one per week), 36 hours of practical work ( three hours per week). Total Time Commitment: 170 hours									
<b>Prerequisites:</b>	<p>Students must have completed <b>one</b> of the following subjects:</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>12.5</td> </tr> <tr> <td>BIOL10004 Biology of Cells and Organisms</td> <td>Semester 1</td> <td>12.5</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	BIOL10002 Biomolecules and Cells	Semester 1	12.5	BIOL10004 Biology of Cells and Organisms	Semester 1	12.5
Subject	Study Period Commencement:	Credit Points:								
BIOL10002 Biomolecules and Cells	Semester 1	12.5								
BIOL10004 Biology of Cells and Organisms	Semester 1	12.5								
<b>Corequisites:</b>	None									
<b>Recommended Background Knowledge:</b>	None									
<b>Non Allowed Subjects:</b>	None									
<b>Core Participation Requirements:</b>	<p>&lt;p&gt;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.&lt;/p&gt; &lt;p&gt;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: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p>									
<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>	The aim of this subject is to introduce students to the practical skills in the application of biotechnological techniques with particular emphasis on agri-food sector related investigations. The practical techniques to be introduced to the students include cell and tissue culture, plant genetic transformation, molecular markers in animal and plant improvement, polymerase chain reaction and antibody based diagnostic techniques, accessing and utilising bioinformatic resources for biotechnology and analytical techniques for GM products, antioxidants and other constituents in food samples.									
<b>Learning Outcomes:</b>	<p>Upon completion of the subject, students should have:</p> <ul style="list-style-type: none"> <li># Understood the way in which experiments are designed, interpreted and communicated</li> <li># Experienced the use of particular laboratory techniques and methods used in agri-food biotechnology</li> <li># Developed an understanding of technologies applied in biotechnology</li> <li># Gained experience in writing scientific reports</li> <li># Developed an ability to analyse data generated from their own experiments</li> </ul>									
<b>Assessment:</b>	Attendance at practical classes is compulsory. Students must attend at least 80% of the laboratory-based component to be considered for assessment A 10-minute group oral presentation or a 1000-word written assignment due approximately Week 7 worth 15% Up to four 1000-word written reports throughout the semester worth 55% A two-hour end-of-semester written examination worth 30%									

<b>Prescribed Texts:</b>	N/A
<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 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 integrate interdisciplinary knowledge across broad discipline areas</li> <li># The awareness of and ability to utilize appropriate communication technology and methods for the storage, management and analysis of the data</li> <li># The ability to develop as a well-informed citizen better able to contribute to their community</li> <li># Critical thinking and problem solving skills</li> <li># The ability to work effectively as a team member</li> <li># Skills in the design, conduct and interpretation of experiments</li> </ul>
<b>Related Course(s):</b>	Master of Biotechnology
<b>Related Majors/Minors/Specialisations:</b>	<p>Agri-food Biotechnology (specialisation of Biotechnology major)  Science-credited subjects - new generation B-SCI and B-ENG.  Selective subjects for B-BMED</p>