

BTCH30001 Methods in Agrifood Biotechnology

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 12 lectures (one per week), 36 hours of practical work (three hours per week). Total Time Commitment: 6 hours per week
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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: http://www.services.unimelb.edu.au/disability/
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Subject Overview:	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 utilizing bioinformatic resources for biotechnology and analytical techniques for GM products, antioxidants and other constituents in food samples.
Objectives:	Upon completion of the subject, students should have: <ul style="list-style-type: none"> # understood the way in which experiments are designed, interpreted and communicated # experienced the use of particular laboratory techniques and methods used in agri-food biotechnology # developed an understanding of technologies applied in biotechnology # gained experience in writing scientific reports # developed an ability to analyze data generated from their own experiments
Assessment:	Attendance at practical classes is compulsory. Students must attend at least 80% of the laboratory-based component to be considered for assessment. A 15-minute group oral presentation or a 1500 word written assignment during the semester (10%); fortnightly written reports of completed laboratory work totaling up to 5000 words (60%); two-hour end-of-semester written examination (30%); Satisfactory completion of the laboratory work, written reports and the practical examination is necessary to pass the subject.
Prescribed Texts:	N/A

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/2012/B-ARTS) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2012/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2012/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:	<p>On completion of this subject students should have developed the following generic skills:</p> <ul style="list-style-type: none"> # The ability to integrate interdisciplinary knowledge across broad discipline areas # The awareness of and ability to utilize appropriate communication technology and methods for the storage, management and analysis of the data # The ability to develop as a well-informed citizen better able to contribute to their community # critical thinking and problem solving skills # able to work effectively as a team member # skills in the design, conduct and interpretation of experiments
Related Majors/Minors/Specialisations:	Agri-food Biotechnology (specialisation of Biotechnology major) Science-credited subjects - new generation B-SCI and B-ENG. Core selective subjects for B-BMED.