

FOOD90011 Food Biotechnology

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 48 hours of lectures Total Time Commitment: Estimated total time commitment (including non-contact time): 120 hours.
Prerequisites:	Eligibility for honours or postgraduate coursework program.
Corequisites:	None
Recommended Background Knowledge:	Chemistry and/or biology or equivalent background
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/
Coordinator:	Dr David Tribe
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Subject Overview:	<ul style="list-style-type: none"> # Principles of Molecular Biology (Gene cloning; Regulation of gene expression; Over-expression of required products); # Applications of molecular biology techniques in plants, animals and micro-organisms important in food production and processing # Applications of molecular analytical techniques to the food industry (DNA probes; DNA micro-arrays; Bio-sensors; Rapid detection of pathogenic and spoilage organisms; Immuno assays, Detection of GMO in foods; Novel techniques) # Detection and extraction of value added products from foods # Bio-informatics (Database searching; Interpretation of results; Protein structure/function) # Regulatory, environmental, safety and ethical issues related to the application of biotechnology in the food industry # Industrial Fermentations (Choice of organisms, Cultivation and preservation of cultures; Optimisation of fermentation conditions; Waste management).
Objectives:	The objectives of this subject are to:
Assessment:	Two assignments of 1000 words each: Assignment 1 (20%), due mid-way through semester Assignment 2 (20%), due one week prior to the end of semester Three hour written examination covering all topics (60%).
Prescribed Texts:	None
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:	<p>On completion of this subject, students should have developed the following generic skills:</p> <ul style="list-style-type: none"> # academic excellence; # greater in-depth understanding of scientific disciplines associated with biotechnology. # The study will develop critical thinking and analysis; and problem solving. # Flexibility and level of transferable skills should be enhanced though improved ability to communicate ideas effectively in both written and verbal formats.
Related Course(s):	<p>Master of Agricultural Science Master of Biotechnology Master of Food Science Postgraduate Certificate in Food Science Postgraduate Diploma in Agricultural Science Postgraduate Diploma in Food Science</p>
Related Majors/Minors/ Specialisations:	Honours Program - Food Science