

## 208-619 Food Biotechnology

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Time Commitment:</b>	Contact Hours: 36 hours lectures and 24 hours of computer based tutorial or demonstration (5 hours per week) Total Time Commitment: Not available
<b>Prerequisites:</b>	Eligibility for honours or postgraduate degree
<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>Subject Overview:</b>	<p>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; immunoassays; 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).</p> <p>This subject aims to impart knowledge of: (i) genetics and genetic engineering techniques, with emphasis on microbial genetics; (ii) food fermentations; (iii) waste utilisation; and (iv) regulatory and ethical issues related to applications of food biotechnology.</p>
<b>Assessment:</b>	Two assignments of 2000 words each (40%) – week 5 and week 9; three hour end of semester examination (60%).
<b>Prescribed Texts:</b>	None
<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>Related Course(s):</b>	Master of Animal Science