

## FOOD30009 Food Research & Development

<b>Credit Points:</b>	12.5												
<b>Level:</b>	3 (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: 36 hours (A one-hour lecture per week and the equivalent of three-hours laboratory or industry based activities during weeks 4-11). Total Time Commitment: 170 hours												
<b>Prerequisites:</b>	The following subjects, or equivalent: <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>FOOD20003 Food Chemistry, Biology and Nutrition</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>FOOD20006 Food Microbiology and Safety</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>FOOD30008 Advanced Food Analysis</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	FOOD20003 Food Chemistry, Biology and Nutrition	Semester 1	12.50	FOOD20006 Food Microbiology and Safety	Semester 2	12.50	FOOD30008 Advanced Food Analysis	Semester 1	12.50
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FOOD20006 Food Microbiology and Safety	Semester 2	12.50											
FOOD30008 Advanced Food Analysis	Semester 1	12.50											
<b>Corequisites:</b>	None												
<b>Recommended Background Knowledge:</b>	Completed second year of Food Science major.												
<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>Coordinator:</b>	Assoc Prof Said Ajlouni												
<b>Contact:</b>	Email: <a href="mailto:said@unimelb.edu.au">said@unimelb.edu.au</a> ( <a href="mailto:said@unimelb.edu.au">mailto:said@unimelb.edu.au</a> )												
<b>Subject Overview:</b>	<p>The aim of this subject is to provide students with an understanding of the systematic processes involved in food research and product development. This subject represents a capstone experience for the food science major. It will allow students to experience and conduct basic research projects (minimum six weeks equivalent).</p> <p>It is anticipated that students will implement the knowledge they have gained via foundation and specialised studies through preparation of a research proposal, and executing that proposal in a laboratory or industry environment. The outcome will involve the development of a new food product, or solving a problem facing the food industry through knowledge of market research, product design and evaluation, packaging, safety, quality and regulatory requirements.</p> <p>The content includes:</p> <ul style="list-style-type: none"> <li># Research concept and proposal preparation</li> <li># Market research and understanding consumer needs</li> <li># Product lifecycles and research case studies</li> <li># Idea generation and evaluation</li> <li># Product and process development - project planning</li> </ul>												

	<ul style="list-style-type: none"> <li># Formulation development and evaluation</li> <li># Process development</li> <li># Shelf-life testing; consumer testing</li> <li># Market trial and strategy development</li> <li># Product specification; raw materials, process, finished product</li> <li># Product evaluation, environmental impact and regulatory issues; packaging and labelling</li> </ul>
<b>Learning Outcomes:</b>	<p>On completion of this subject students should be able to:</p> <ul style="list-style-type: none"> <li># Gain significant skills in research planning and execution</li> <li># Utilize their learned research skills and problem solving to challenge future workplace and community requirements</li> <li># Demonstrate an understanding of the systematic processes involved in new food product development</li> <li># Describe the role of the consumer, industry trends and product lifecycles in new product development</li> <li># Discuss the role of ideas generation and evaluation in the product development process</li> <li># Write a brief research proposal</li> <li># Prepare a flow chart for research project activities</li> <li># Describe the product development process</li> <li># Be able to explain the design issues relevant a new product specification</li> <li># Write and present data and finding in a scientific format</li> </ul>
<b>Assessment:</b>	A one-hour mid-semester exam worth 25% A 10-minute oral presentation, starting in approximately Week 8 of semester worth 25% One written report equivalent to 2000 words due in approximately Week 9 worth 50%
<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 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 <a href="http://breadth.unimelb.edu.au/breadth/info/index.html">learn more about breadth subjects (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># Improve personal contact with the food industry and research institutes</li> <li># Use appropriate methods of scientific report writing and oral presentation</li> <li># Understand organisational strategy and project management processes and their application in commercial food operations</li> <li># Evaluate technical and process data and communicate this information effectively in scientific written and verbal forms</li> <li># Work as team member in a research and/or an industry environment</li> </ul>
<b>Notes:</b>	<p>Note: For the purposes of considering applications for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005) and Students Experiencing Academic Disadvantage Policy, this subject requires all students to actively and safely participate in practical exercises conducted in pilot-scale food processing facilities as well as visits to commercial food processing facilities. Such activities may involve lifting, climbing multiple stairs and movement around equipment in addition to compliance with the various organisations' OH&amp;S requirements. Students who feel disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit.</p>

**Related Majors/Minors/  
Specialisations:**

Food Science  
Science-credited subjects - new generation B-SCI and B-ENG.  
Selective subjects for B-BMED