

## FOOD90023 Food Microbiology

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| <b>Credit Points:</b>                    | 12.5  |
| <b>Level:</b>                            | 9 (Graduate/Postgraduate)   |
| <b>Dates &amp; Locations:</b>            | 2016, Parkville<br>This subject commences in the following study period/s:<br>Semester 2, Parkville - Taught on campus.   |
| <b>Time Commitment:</b>                  | Contact Hours: 24 hours of lectures and 24 hours of practicals and demonstrations. Total Time Commitment: 170 hours   |
| <b>Prerequisites:</b>                    | Eligibility for honours or postgraduate coursework program.   |
| <b>Corequisites:</b>                     | None  |
| <b>Recommended Background Knowledge:</b> | Chemistry and/or biology or equivalent background.  |
| <b>Non Allowed Subjects:</b>             | None  |
| <b>Core Participation Requirements:</b>  | 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: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>  |
| <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 Food Microbiology. The content includes:</p> <ul style="list-style-type: none"> <li># Overview of important microorganisms in foods</li> <li># Microbial metabolism</li> <li># Nature of microbial growth in food</li> <li># Action of microorganisms on food components</li> <li># Predictive microbiology</li> <li># Microorganisms of importance for the food industry</li> <li># Microorganisms of potential food safety concern</li> <li># Genetically modified microorganisms</li> </ul> <p>This subject is supported by a practical laboratory program, which emphasises modern and instrumental microbiological techniques.</p>  |
| <b>Learning Outcomes:</b>                | <p>This revised subject is designed to provide students with the fundamental aspects of food microbiology and their practical applications in the food industry. Upon completion, students are expected to be able to:</p> <ul style="list-style-type: none"> <li># Describe the nature of microorganisms, their classification, identification and growth</li> <li># Acquire practical experiences in microbial identification</li> <li># Identify strategies to minimize the risk of food poisoning and to improve consumer confidence in the safety of food</li> <li># Understand differences between conventional and rapid methods of microbial analysis</li> <li># Gain skills in examination and identification of a possible cause of food spoilage and disease causing microorganisms</li> </ul> |

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|                           | # Apply the principles of predictive microbiology   |
| <b>Assessment:</b>        | One practical report of 1000 words due in approximately Week 7 (10%) One practical report of 1000 words due in approximately Week 11 (10%) A one-hour mid-semester exam held in approximately Week 6 (20%) A two-hour end-of-semester written exam (60%)  |
| <b>Prescribed Texts:</b>  | Ray, B. and Bhunia, A. (2008) Fundamental Food Microbiology. 4th edition. CRC Press. Taylor & Francis group. Boca Raton, London and New York.   |
| <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>Generic Skills:</b>    | <p>Upon completion of this unit, students should have developed:</p> <ul style="list-style-type: none"> <li># A profound respect for truth, intellectual and professional integrity, and the ethics of scholarship</li> <li># Capacity for independent critical thought, rational inquiry and self-directed learning and research</li> <li># An ability to drive, interpret and analyse social, technical or economic information from multiple sources</li> <li># Skills in observation, critical analysis and report writing</li> </ul> |
| <b>Related Course(s):</b> | <p>Graduate Certificate in Food Science<br/> Graduate Diploma in Food Science<br/> Master of Food Science<br/> Postgraduate Diploma in Food Science</p>   |