

## FOOD90024 Securing Sufficient and Healthy Food

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| <b>Credit Points:</b>                    | 12.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Level:</b>                            | 9 (Graduate/Postgraduate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Dates &amp; Locations:</b>            | 2015, Parkville<br>This subject commences in the following study period/s:<br>Semester 1, Parkville - Taught on campus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Time Commitment:</b>                  | Contact Hours: 30 hours: 24 hours of lectures, 6 hours of workshop Total Time Commitment: 30 hours contact time: 80 hours of directed study, assessment and reading (total 170 hours).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Prerequisites:</b>                    | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <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>Coordinator:</b>                      | Dr Helen Suter, Dr Kate Howell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Contact:</b>                          | <p><a href="mailto:khowell@unimelb.edu.au">khowell@unimelb.edu.au</a> (<a href="mailto:khowell@unimelb.edu.au">mailto:khowell@unimelb.edu.au</a>)</p> <p><a href="mailto:helencs@unimelb.edu.au">helencs@unimelb.edu.au</a> (<a href="mailto:helencs@unimelb.edu.au">mailto:helencs@unimelb.edu.au</a>)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Subject Overview:</b>                 | <p>Food security is defined by the World Health Organization as “<i>when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life</i>”. This is becoming increasingly difficult to maintain in all global sectors with increased populations, trade restrictions and the effects of pests and diseases on quality and yield. These factors are compounded by predicted reducing availability of energy (oil), fertilizer (phosphorous) and climate challenges. The food that is produced must also be free from pathogens or secondary compounds that affect human or livestock health. This subject will explore the causes of food insecurity and mitigations to secure food at the local and global levels by farmers (producers), politicians, scientists and non-government organizations alike, with a strong focus on the biological and applied production issues.</p> <p><b>Topics will include:</b></p> <ul style="list-style-type: none"> <li># Definitions and causes of food insecurity.</li> <li># Risks to food security from the environment and current production systems.</li> <li># Socio-political and cultural reasons behind food crises and lack of access to adequate food.</li> <li># Securing food locally through rescue and redistribution, and reduced food wastage.</li> <li># Health risks from food chain contamination.</li> <li># Major plant and animal-borne diseases that impact food security and their accurate diagnosis.</li> <li># Impacts of chemicals and genetic modifications on the food chain and the environment.</li> <li># Quarantine measures and impacts for securing food quality and quantity.</li> <li># Adapting food production systems in the face of risks from climate change.</li> </ul> |

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| <b>Learning Outcomes:</b>                          | <p>On completion of this subject, students will be knowledgeable in:</p> <ul style="list-style-type: none"> <li># Causes of food insecurity (political, cultural, economic and biological).</li> <li># Vulnerability and resilience of food systems.</li> <li># Current national and international focus on food policy.</li> <li># Securing food in a changing world.</li> <li># Practical grass roots approaches to reducing food waste.</li> <li># Impacts of pests and diseases on food security.</li> <li># Pre and post farm-gate methods for food protection and human health protection.</li> <li># Transformational changes occurring in food production systems aimed to increase yields under current and predicted climatic risks.</li> </ul> |
| <b>Assessment:</b>                                 | <p>Assessment in this subject will include: one 2,000 word essay on a topic chosen from a list of provided topics (worth 30%) due in approximately Week 6; a 10 minute oral presentation and participation in a related mini-symposium(worth 20%) due in approximately Week 10 a 2-hour exam (worth 50%).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Prescribed Texts:</b>                           | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Recommended Texts:</b>                          | "Food Security and Global Environmental Change". Edited by John Ingram, Polly Ericksen and Diana Liverman. Earthscan, UK. ISBN 978-1-84971-127-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <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>On completion of this subject, students should have developed:</p> <ul style="list-style-type: none"> <li># an ability to critically review scientific literature;</li> <li># communication skills, through written and oral presentations; and</li> <li># a sense of intellectual curiosity.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Related Course(s):</b>                          | <p>Graduate Certificate in Agricultural Sciences<br/> Graduate Certificate in Food Science<br/> Graduate Diploma in Agricultural Sciences<br/> Graduate Diploma in Food Science<br/> Master of Agribusiness (Coursework)<br/> Master of Agricultural Science<br/> Master of Animal Science<br/> Master of Food Science<br/> Master of Food and Packaging Innovation<br/> Postgraduate Diploma in Agricultural Science<br/> Postgraduate Diploma in Food Science</p>                                                                                                                                                                                                                                                                                       |
| <b>Related Majors/Minors/<br/>Specialisations:</b> | <p>100 Point (A) Master of Agricultural Sciences<br/> 200 Point Master of Agricultural Sciences<br/> Honours Program - Food Science<br/> Public Health<br/> Public Health<br/> Tailored Specialisation<br/> Tailored Specialisation</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |