

FOOD90034 Sustainable Food Production

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 hours: 24 hours lectures/interactive discussion. 12 hours of oral assignment preparation and delivery. Total Time Commitment: 170 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p>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.</p> <p>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: http://services.unimelb.edu.au/disability</p>
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Subject Overview:	Currently, there is more than sufficient food produced on a global scale to feed the population. This has been an upward trend throughout agricultural history, whereby humans have altered their cultivation habits to produce more. However, the continued rise in productivity is unlikely to continue under current systems within which resources are finite. The full impacts of this on a global scale are yet to be experienced by much of the population, largely in developed areas, although viability has dropped in many food producing systems due to increases in input costs of fuel, water, fertilizers and pest and disease control. Meanwhile, at the regional scale, food production systems are already found to be unsustainable with dropping productivity in previously fertile and highly productive areas. The reasons for the production declines are varied and complex, ranging from climate impacts to unsustainable cultivation methods leading to land degradation, reduced fertility and biodiversity required for healthy ecosystems. This subject will explore the biological issues contributing to the reduction of productivity we are currently observing in these fragile agricultural systems and explore the future issues that are likely to impact on systems thought to currently be more stable. We will thereby understand the components that contribute to sustainable food productivity and learn which of these are most unsustainable and will require future investment in systems change to maintain productivity.
Learning Outcomes:	<ul style="list-style-type: none"> # to be able to understand sustainable and unsustainable agricultural practices # to describe the existing agricultural land use and food availability and linkage between increasing human population and climate change and excess pressure on agricultural systems # to explain the importance of biodiversity conservation in agriculture and preventive strategies for biodiversity conservation # to demonstrate a comprehensive understanding of sustainable practices needed to maintain long term food availability from existing agroecosystems # to differentiate different types of sustainable agriculture practices in crop production and animal husbandry and what progress has so far been achieved in improving the

	<p>sustainability of intensive and organic production systems in under different scenarios within the developing and developed world</p> <p># to demonstrate the role of new generation technologies and how they will aid the existing conventional technologies to maintain the food availability in resource constrained systems</p>
Assessment:	Oral presentation (15 minutes), due mid semester, 30% One essay (3500 words) due at the end of semester, 70%
Prescribed Texts:	None
Recommended Texts:	Readings will be provided via the Learning Management System (LMS).
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:	<ul style="list-style-type: none"> # A profound respect for truth, intellectual and professional integrity, and the ethics of scholarship # Develop problem solving skills, sharpen analytic skills # Capacity for independent critical thought, rational inquiry and self-directed learning and research # Develop the ability to work as a team member # An ability to derive, interpret and analyse social, technical or economic information from primary and other sources # Awareness of and ability to utilise appropriate communication technology and methods for the storage, management and analysis of data # Capacity for creativity and innovation, through the application of skills and knowledge # Ability to integrate information across sustainable food production systems to solve problems in applied situations across globe # Highly developed computer - based skills to allow for effective on-line learning and communication # Highly developed written communication skills to allow informed dialogue with individuals and groups from industry, government and the community
Related Course(s):	<p>Graduate Certificate in Agricultural Sciences</p> <p>Graduate Certificate in Food Science</p> <p>Graduate Diploma in Agricultural Sciences</p> <p>Graduate Diploma in Food Science</p> <p>Master of Food Science</p> <p>Master of Science (Geography)</p> <p>Master of Urban Horticulture</p> <p>Postgraduate Diploma in Food Science</p>
Related Majors/Minors/Specialisations:	<p>100 Point (A) Master of Agricultural Sciences</p> <p>100 Point (B) Master of Agricultural Sciences</p> <p>150 Point Master of Agricultural Sciences</p> <p>200 Point Master of Agricultural Sciences</p> <p>Food Security Specialisation</p> <p>Tailored Specialisation</p> <p>Tailored Specialisation</p>