AGRI30031 Crop Production and Management

Credit Points:	12.5
Level:	3 (Undergraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 60 Total Time Commitment: 170 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	

Subject	Study Period Commencement:	Credit Points:
EVSC20002 Soil and Water Resources	Semester 2	12.50
AGRI20026 Plant Growth Processes	Semester 1	12.50

Non Allowed Subjects:	None
Core Participation Requirements:	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. 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
Coordinator:	Dr Marc Nicolas
Contact:	Email: **marcen@unimelb.edu.au (mailto:marcen@unimelb.edu.au)**
Subject Overview:	Field crop production is a major component of Australia’s economy, and landholders manage their resources to balance ecological, environmental and social demands. This subject discusses how these strategies are employed to produce high quality crop products. Topics include: # An appraisal of the cropping enterprises in southern Australia - the location, scale and nature of cropping enterprises and their contribution to the national economy # Growth, development and yield in crop production - definitions and relations between growth and development attributes, yield and yield components, measurement of crop yields, biological and economical yield and harvest index (complemented by field exercises) # Environmental constraints limiting productivity - climate and growing season, water and nutrient availability # Agronomic management to optimise production and product quality, including water and nutrient management, soil management and rotations # Problems and prospects of both dryland and irrigated crop production within farm systems, comparative cost-return analysis, marketing strategies
Learning Outcomes:	The objectives of this subject are to extend the student's ability to: # Identify the ecological principles underpinning crop production systems # Understand how the processes of growth and development of plants interact with management operations in a crop production system # Identify the role and place of selected crops in production systems

	# Develop skills in predicting outcomes from particular management practices on economic and environmental benchmarks
Assessment:	A two-hour end-of-semester examination worth 40% A 1000-word practical report based on the field trips, due in approximately Week 4 worth 20% A 1000-word practical report based on the field trips, due in approximately Week 8 worth 20% A small plant collection; collection, presentation and short description of approximately ten plants due towards the end of semester worth 20%
Prescribed Texts:	Loomis, R. S., & Connor, D. J. (1992) Crop Ecology: Productivity and Management in Agricultural Systems. Cambridge University Press.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2016/B-ARTS)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2016/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2016/B-MUS)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject, the student should have developed the following generic skills: # An ability to demonstrate a broad knowledge of fundamental scientific precepts across crop production systems # An understanding of the structures of agriculture and related industries and the principal factors that determine location, environmental impact, sustainability, profitability and international trade competitiveness # The capacity to apply scientific knowledge to the definition, analysis, and solution of agricultural and environmental problems # A capacity for the exchange, acquisition and dissemination of scientific and industry information and for technology transfer
Related Majors/Minors/ Specialisations:	Agricultural Economics Agricultural Science Plant and Soil Science Production Animal Science Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED Sustainable Production