208-413 Biological Systems Analysis

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: Twenty-four hours of lectures, and 36 hrs of tutorials and presentations Total Time Commitment: Not available
Prerequisites:	Admission to Honours or postgraduate degree.
Corequisites:	None
Recommended Background Knowledge:	None
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 Ken Young
Subject Overview:	This subject will examine the biophysical, biological and ecological processes in agricultural production, with an emphasis on plants and plant communities. Case studies will be used as a framework for students to identify the major factors operating in agricultural systems, and their interrelationships. In each case study, lectures and tutorials will assist students to systematically build a conceptual model of how the system functions, identify key variables and response functions, and find data from literature to parameterise the variables and functions. Appropriate process-based models will be used to explore the behaviour of the system in response to changes in environment and management. The subject should help students develop an understanding of the major driving factors and variables in biological systems, determine future research requirements and identify where management changes will have the greatest impact. On completion of this subject students should be able to: # recognise the complexity of a biological system and how components of biological systems interact at different levels; # display an understanding of how models can be used to analyse biological factors and variables, and their interactions; # identify research or management priorities from an understanding of biological systems; and # formulate simple process-based conceptual models at different hierarchical levels.
Assessment:	Two mid-semester assignments totalling up to 3000 words (20% each), an end-of-semester paper of up to 3000 words (40%) and a seminar presentation (20%).
Prescribed Texts:	None

Recommended Texts:	Information Not Available
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:	Information Not Available
Related Course(s):	Bachelor of Agriculture (Honours) Bachelor of Agriculture (Honours)