AGRI90066 Soil Science and Management

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 24 hours of lectures, 20 hours of tutorials and a full day excursion Total Time Commitment: 170 hours
Prerequisites:	Eligibility for honours or postgraduate degree
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	It is University policy to take all 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. This course requires all students to enrol in subjects where they must actively and safely contribute to laboratory activities and field trips. Students who feel their disability will impact on meeting this requirement are encouraged to discuss this matter with the Subject Coordinator and Disability Liaison.
Coordinator:	Dr Tony Weatherley
Contact:	**anthony@unimelb.edu.au (mailto:anthony@unimelb.edu.au)**
Subject Overview:	This subject will examine the major current issues in the management of soils under various land uses in Australia. The dynamic nature of soils will be explored through study of the chemical, physical and biological processes in the soil environment, particularly those which impact directly on plant growth. The subject should develop an understanding of how soils can be managed to optimise plant growth and minimise adverse effects on the environment and present practical solutions to soil management.
Learning Outcomes:	On completion of this subject the student should be able to: # recognise the major issues affecting the sustainable management of soils under various land uses in Australia; # appreciate the dynamic nature of soils and apply practical solutions to soil management problems; # understand the physical, chemical and biological processes that control nutrient and contaminant availability in soils; # understand the role of soil/agriculture in mitigation greenhouse gas emissions # be familiar with the principles underlying the analysis of soils and plants for assessing soil nutrient availability and; understand the principles used in soil survey and conduct a basic land capability assessment
Assessment:	A two-hour end of semester examination (40%); an online mid semester test (20%); an assignment associated with land capability, 1000 words (20%) approximately week 9; and a 10 minute class presentation (20%) during the semester
Prescribed 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:	A profound respect for truth, intellectual and professional integrity, and the ethics of scholarship Capacity for independent critical thought, rational inquiry and self-directed learning and research 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 a relevant discipline to solve problems in applied situations 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 Highly developed oral communication skills to allow informed dialogue and liaison with individuals and groups from industry, government and the community. Appreciation of social and cultural diversity from a regional to a global context Ability to participate effectively as a member of a team Ability to plan work, use time effectively and manage small projects
Related Course(s):	Graduate Certificate in Agricultural Sciences Graduate Diploma in Agricultural Sciences Graduate Diploma in Urban Horticulture Master of Agricultural Science Master of Urban Horticulture Postgraduate Diploma in Agricultural Science
Related Majors/Minors/ Specialisations:	100 Point (A) Master of Agricultural Sciences 100 Point (B) Master of Agricultural Sciences 150 Point Master of Agricultural Sciences 200 Point Master of Agricultural Sciences Bachelor of Environments (Honours) Landscape Management Conservation and Restoration Conservation and Restoration Crop Production Specialisation Environmental Science Environmental Science Honours Program - Agricultural Science Integrated Water Catchment Management Integrated Water Catchment Management Tailored Specialisation Tailored Specialisation