

208-411 Research Philosophies and Statistics

Credit Points:	12.50
Level:	4 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: Twenty-four hours lectures, 24 hours tutorials Total Time Commitment: Not available
Prerequisites:	Eligibility for honours or postgraduate degree; 202-202 Experimental Design and Statistical Analysis or equivalent.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p><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></p>
Coordinator:	Prof Frank Rowland Dunshea
Subject Overview:	<p>This subject should give students knowledge of a range of research methodologies and underlying philosophies, and sophisticated statistical tools to design laboratory and field experiments and field surveys, and effectively and appropriately analyse these data sets in agriculture, horticulture and land management.</p> <p>Upon completion of the subject, students should be able to:</p> <ul style="list-style-type: none"> # formulate research questions and hypotheses, and implement hypotheses testing, to satisfy research needs in different disciplines, including field research and economics; # recognise, understand and apply concepts of study design (such as observational studies versus designed experiments, confounding, replication, randomisation, and blocking), and discuss the effect of design concepts on the interpretation of results; # determine the appropriate statistical methodology to use, including parametric and non-parametric methods, and confirm that data sets meet the underlying assumptions of the statistical model chosen; # display an understanding of the purpose and limitation of inference, and be able to use the main tools of inference to analyse and interpret data; and # interpret statistical program outputs in agricultural, horticultural and land management contexts
Assessment:	A 3-hour examination (50%), one assignment of up to 3000 words or equivalent (50%).
Prescribed Texts:	None
Recommended Texts:	# Biostatistical Analysis (JH Zar), 4th edn, 1999

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):	<ul style="list-style-type: none"> Bachelor of Agricultural Science (Honours) Bachelor of Agricultural Science/Bachelor of Commerce Bachelor of Animal Science and Management with Honours Bachelor of Food Science (Honours) Bachelor of Forest Science (Honours) Bachelor of Horticulture (Honours) Bachelor of Natural Resource Management with Honours Bachelor of Resource Management with Honours Graduate Diploma in Agricultural Science Master of Food Science Postgraduate Diploma in Food Science