

EDUC90663 Teaching Statistics and Probability

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 24 hours. Total Time Commitment: 120 hours.
Prerequisites:	Enrolling students must have a teaching qualification either: # an undergraduate degree and a fourth-year level education qualification, or equivalent, or # a four-year education degree, or equivalent.
Corequisites:	None.
Recommended Background Knowledge:	Good knowledge of mathematics to Year 11 level, and general knowledge of teaching practices in any subject.
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 Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Assoc Prof Robyn Pierce
Contact:	Education Student Centre
Subject Overview:	This subject covers the statistics needed for teaching year 11 and 12: exploratory data analysis and informal inference. The subject blends content knowledge with pedagogical knowledge. It answers such questions as why statistics are valuable and how to understand what they do and don't tell us. It develops the notion of statistical literacy, the importance of embedding the teaching of statistics within real world contexts. It will consider teaching strategies to develop students' critical thinking and their ability to discuss, display and interpret quantitative data. Emphasis will be placed on exploring teaching strategies that both engage and inform students, equipping them to be informed citizens. The use of statistics software will be integral to this subject. Students will be expected to participate in intensive teaching, completion of weekly exercises to satisfactory standard and regularly contribute to the electronic forum.
Objectives:	On completion of this subject, participants will be able to: # Demonstrate an understanding exploratory data analysis, informal inference, and critical analysis of data. # Discuss issues involved in engaging students in mathematics and developing a productive disposition # Demonstrate awareness of issues involved in teaching students to conduct investigations. # Demonstrate competence with graphics calculators and an awareness of the issues involved in the pedagogical use of technology.
Assessment:	Statistical investigation with commentary on pedagogical issues (3500 words) due end of semester. (70%)Critical analysis of reporting of statistical data and reflection on issues for students. (1500 words) due at mid semester. (30%)
Prescribed Texts:	Goos, M., Stillman, G., & Vale, C. (2007). Teaching secondary school mathematics: Research and practice for the 21st century. Sydney: Allen & UnwinFurther readings will be provided. Special requirement. Handheld calculator or computer software recommended for use in the VCE subject Mathematical Methods.

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"># Be skilled communicators who can effectively articulate and justify their mathematics teaching practices;# Understand the significance of developing their mathematics teaching practice on the basis of research evidence# Demonstrate mastery of the subject matter for this area of teaching and of general principles of effective teaching and learning in a mathematics context, including with technology
Related Course(s):	Postgraduate Certificate in Mathematics Teaching (Years 11-12)