

505-970 Epidemiology & Analytic Methods 2

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus. Block
Time Commitment:	Contact Hours: 4 hours/wk over 6 weeks. Total Time Commitment: Students will be expected to undertake additional tasks, reading and preparation equivalent to a total additional time commitment of 80 to 90 hours.
Prerequisites:	505969 Epidemiology & Analytic Methods 1
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:	Centre for MEGA Epidemiology, Pop Hlth
Subject Overview:	<p>This subject consolidates the basic principles covered in "Epidemiology and Analytic Methods I" and develops a more substantial understanding of epidemiological research, and in particular of the key concepts of confounding, information bias, standardisation, stratification and methods of statistical inference used in basic epidemiological analysis. Students are introduced to analytic methods for comparison of means and proportions between groups, to stratified analyses and to tests of association using the Stata statistical software package</p> <p>Subject Objectives: On completion of this subject, students are expected to:</p> <ul style="list-style-type: none"> • Understand error, bias and confounding • Understand how sampling variability underpins statistical inference in hypothesis testing • Use correct data summary methods and terminology for reporting health information and the findings of data analyses • Compute and interpret confidence intervals and p-values for differences in means and proportions • Understand simple statistical methods for the control of confounding • Compute standardised measures of disease frequency • Compute Mantel-Haenszel estimators and tests for homogeneity • Assess the quality of the data and the interpretation of confidence intervals and p-values in the published literature. • Calculate sample sizes for estimating and comparing means and proportions
Assessment:	One assignment of up to 1500 words (25%) due in week 9 or 10, a second assignment of up to 2000 words (45%) due a few weeks after the end of coursework and an examination (30%) to be held in the University examination period.
Prescribed Texts:	Webb P, Bain C & S Pirozzo Essential Epidemiology. Cambridge University Press: 2005, and BR Kirkwood and JAC Sterne, Essential Medical Statistics Second Edition, Blackwell Science, 2003

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:	<p>On completion of this subject, students are expected to:</p> <ul style="list-style-type: none"> • Develop basic problem solving and analytical skills • Develop the epidemiological frameworks to recognise and describe research methods • Become familiar with the language and terminology used in epidemiology • Develop skills in written communication including basic methods for statistical summary and description of epidemiological data • Develop the ability to plan and prioritise reading and assessment tasks <p>Special computer skills required: Students are expected to have experience using the Stata statistical package for data managements and basic descriptive statistics.</p>
Links to further information:	http://www.sph.unimelb.edu.au
Notes:	<p>This subject, taken in conjunction with 505-969 Epidemiology and Analytic Methods I, replaces 505-101 and 505-102 as a core subject for the MPH Epidemiology and Biostatistics stream.</p> <p>Subject Coordinator: Dr Jane Hocking 8344 9324</p>
Related Course(s):	<p>Master of Epidemiology Master of Public Health</p>