

POPH90242 Observational Epidemiology

Credit Points:	12.50									
Level:	9 (Graduate/Postgraduate)									
Dates & Locations:	Subject Dates: 28 July (4.15 – 6.15pm) 4 Aug - 15 September (2.15 - 6.15 pm)									
Time Commitment:	Contact Hours: 30 Total Time Commitment: 120 hours									
Prerequisites:	<p>POPH90142 Epidemiology & Analytic Methods 1 POPH90143 Epidemiology & Analytic Methods 2</p> <p>OR</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>POPH90013 Biostatistics</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>POPH90014 Introduction to Epidemiology</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	POPH90013 Biostatistics	Semester 1	12.50	POPH90014 Introduction to Epidemiology	Semester 1	12.50
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POPH90013 Biostatistics	Semester 1	12.50								
POPH90014 Introduction to Epidemiology	Semester 1	12.50								
Corequisites:	None									
Recommended Background Knowledge:	Students are expected to be familiar with the statistical package Stata									
Non Allowed Subjects:	POPH90146 Study Design in Epidemiology POPH90147 Epidemiology in Practice									
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.									
Contact:	<p>d.english@unimelb.edu.au (mailto:d.english@unimelb.edu.au)</p> <p>OR</p> <p>Academic Programs Office Melbourne School of Population and Global Health Tel: +61 3 8344 9339 Fax: +61 3 8344 0824 Email: sph-gradinfo@unimelb.edu.au (mailto:sph-gradinfo@unimelb.edu.au)</p>									
Subject Overview:	<p>This subject is a core subject within the Master of Epidemiology and the Master of Science (Epidemiology) and an elective within the Master of Public Health and Master of Environment. It covers the main observational study designs used in epidemiological research: cohort studies, case-control studies including the variants of nested case-control studies, case-cohort studies and case-crossover studies, ecological studies, cross-sectional studies and descriptive studies. Systematic reviews and meta-analysis of observational studies are discussed. Causal diagrams are introduced as a unifying means for identifying confounding and selection bias and interpreting associations. Other topics include: measurement of exposures, outcomes and confounders and effect modification.</p> <p>Skills in critically appraising findings from observational research will build on the base of Introduction to Epidemiology. Students will apply their knowledge to designing observational studies with the aim of investigating topical problems in public health.</p> <p>This subject complements the subject Clinical Epidemiology, which focuses on intervention studies in clinical and public health research.</p>									
Learning Outcomes:	<p>At the completion of this subject students should be able to:</p> <ol style="list-style-type: none"> 1 Design observational epidemiological studies with due regard to choosing a design to answer a specific research question, minimising bias, achieving adequate sample size and feasibility 									

	<ol style="list-style-type: none"> 2 Compare the relative strengths and weaknesses of the common observational study designs 3 Use causal diagrams to help plan statistical analyses and design studies 4 Use published guidelines for the reporting of observational studies to assist with designing and appraising studies 5 Critically appraise epidemiological studies, including conducting systematic reviews 6 Perform and interpret meta-analyses of observational studies 7 Calculate sample sizes for the most common types of observational studies 8 Assess whether effect modification is present and determine its clinical or public health implications 9 Assess reliability and validity of measurements of exposures and confounders and describe strategies to minimise measurement error
Assessment:	<p>Group preparation of questions on assigned weekly reading (approximately 300 words per group of 5 students) due twice during the teaching period (10%)</p> <p>Group summaries of responses to questions based on assigned weekly reading due twice during the teaching period (10%)</p> <p>One 1000 word assignment due in the third week of the teaching period (20%)</p> <p>One 1500 word assignment due three weeks after teaching period (30%)</p> <p>1.5 hour open-book examination held during the examination period (30%)</p>
Prescribed Texts:	None
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
Related Course(s):	<p>Master of Epidemiology</p> <p>Master of Public Health</p> <p>Master of Science (Epidemiology)</p>
Related Majors/Minors/Specialisations:	<p>Epidemiology and Biostatistics</p> <p>Gender and Women's Health</p> <p>Public Health</p> <p>Sexual Health</p>