

POPH90144 Linear & Logistic Regression

Credit Points:	12.50																				
Level:	9 (Graduate/Postgraduate)																				
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: July, Parkville - Taught on campus. Classroom																				
Time Commitment:	Contact Hours: 30 hours Total Time Commitment: 120 hours																				
Prerequisites:	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>POPH90142 Epidemiology & Analytic Methods 1</td> <td>Not offered 2012</td> <td>12.50</td> </tr> <tr> <td>POPH90143 Epidemiology & Analytic Methods 2</td> <td>Not offered 2012</td> <td>12.50</td> </tr> </tbody> </table> <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 Epidemiology</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	POPH90142 Epidemiology & Analytic Methods 1	Not offered 2012	12.50	POPH90143 Epidemiology & Analytic Methods 2	Not offered 2012	12.50	Subject	Study Period Commencement:	Credit Points:	POPH90013 Biostatistics	Semester 1	12.50	POPH90014 Epidemiology	Semester 1	12.50
Subject	Study Period Commencement:	Credit Points:																			
POPH90142 Epidemiology & Analytic Methods 1	Not offered 2012	12.50																			
POPH90143 Epidemiology & Analytic Methods 2	Not offered 2012	12.50																			
Subject	Study Period Commencement:	Credit Points:																			
POPH90013 Biostatistics	Semester 1	12.50																			
POPH90014 Epidemiology	Semester 1	12.50																			
Corequisites:	None																				
Recommended Background Knowledge:	Special computer skills required: Students are expected to have experience using the Stata statistical package																				
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.																				
Coordinator:	Assoc Prof Julie Simpson																				
Contact:	<p>Centre for Molecular, Environmental, Genetic and Analytic (MEGA) Epidemiology Melbourne School of Population Health Email: julieas@unimelb.edu.au (mailto:julieas@unimelb.edu.au)</p> <p>OR</p> <p>Academic Programs Office Melbourne School of Population Health Tel: +61 3 8344 9339 Fax: +61 3 8344 0824 Email: sph-gradinfo@unimelb.edu.au</p>																				
Subject Overview:	This subject is compulsory for students doing a Master of Epidemiology or a Master of Science – Epidemiology. The subject covers linear regression methods for continuous outcome variables and logistic regression methods for binary outcome variables. The subject equips students with the practical skills to apply these regression methods to data from epidemiological studies using the statistical package Stata. Also covered is how to adjust for confounding and investigate																				

	effect modification using regression models. The focus is on the practical interpretation of the measures of association estimated by these regression models.
Objectives:	<p>On completion of this subject, students are expected to:</p> <ul style="list-style-type: none"> # Recognise when it is appropriate to use linear and logistic regression models # Demonstrate practical skills in fitting linear and logistic regression models in the statistical computing package, Stata. # Interpret the measures of association (mean differences and odds ratios) estimated by linear and logistic regression models. # Describe and demonstrate how to adjust for confounding and identify variables that modify measures of association using these regression methods.
Assessment:	A written assignment of not more than 8 pages due at the start of the 4th week of the subject (30%), a written assignment of not more than 10 pages due two weeks after the intensive delivery period (40%) and a 1.5-hour open-book examination (administered by the School) to be held during the examination period at the end of semester 2 (30%).
Prescribed Texts:	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>Upon completion of this subject, students will have developed skills in:</p> <ul style="list-style-type: none"> # Critical thinking and analysis, # Finding, evaluating and using relevant information, # Problem-solving, # Written communication, # Using computers.
Links to further information:	http://www.sph.unimelb.edu.au
Notes:	
Related Course(s):	<p>Master of Epidemiology Master of Public Health Master of Science (Epidemiology)</p>
Related Majors/Minors/Specialisations:	<p>Epidemiology and Biostatistics Gender & Women's Health Health Economics & Economic Evaluation Public Health</p>