

## 505-942 Survival Analysis

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	Distance
<b>Time Commitment:</b>	Contact Hours: None Total Time Commitment: 8 - 12 hours total study time per week
<b>Prerequisites:</b>	505-106 Epidemiology (EPI) 505-105 Mathematics Background for Biostatistics (MMB) 505-107 Principles of Statistical Inference(PSI) 505-940 Linear Models (LMR) 505-975 Probability and Distribution Theory (PDT)
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	<p>&lt;p&gt;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.&lt;/p&gt;         &lt;p&gt;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: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p>
<b>Contact:</b>	Dr Petra Graham, Macquarie University Biostatistics Collaboration of Australia School of Population Health, University of Melbourne
<b>Subject Overview:</b>	Topics include: Kaplan-Meier life tables; logrank test to compare two or more groups; Cox's proportional hazards regression model; checking the proportional hazards assumption; time-dependent covariates; sample size calculations for survival studies.
<b>Objectives:</b>	To enable students to analyse data from studies in which individuals are followed up until a particular event occurs, e.g. death, cure, relapse, making use of follow-up data also for those who do not experience the event, with proper attention to underlying assumptions and a major emphasis on the practical interpretation and communication of results.
<b>Assessment:</b>	Three written assignments to be submitted during semester worth 22% each (approx 8 hrs work each).Online participation worth 8% (approx 6 hrs work)One at-home examination at the end of Semester (26%, approx 10 hrs)
<b>Prescribed Texts:</b>	Hosmer D W, Lemeshow S, May S. Applied Survival Analysis: Regression Modeling of time to event data. 2nd Edition. Wiley Interscience 2008. (ISBN 978-0-471-75499-2) Special Computer Requirements: Stata statistical software Resources Provided to Students: Printed course notes and assignment material by mail, email, and online interaction facilities.
<b>Recommended Texts:</b>	Cleves M, Gould W, Gutierrez R. An Introduction to Survival Analysis Using Stata, 2004. Stata Press - <a href="http://survey-design.com.au/">http://survey-design.com.au/</a> ( <a href="http://survey-design.com.au/">http://survey-design.com.au/</a> ) (ISBN 978-1-881228-84-4)

<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	Independent problem solving, facility with abstract reasoning, clarity of written expression, sound communication of technical concepts
<b>Links to further information:</b>	<a href="http://www.sph.unimelb.edu.au">http://www.sph.unimelb.edu.au</a>
<b>Notes:</b>	This subject is not available in the Master of Public Health.
<b>Related Course(s):</b>	Master of Biostatistics Postgraduate Certificate in Biostatistics Postgraduate Diploma in Biostatistics