

# MAST90101 Introduction to Statistical Computing

<b>Credit Points:</b>	12.5
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
<b>Time Commitment:</b>	Contact Hours: 30 hours Total Time Commitment: 170 hours
<b>Prerequisites:</b>	None
<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>Coordinator:</b>	Dr Emily Karahalios
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<b>Subject Overview:</b>	The aim of this subject is to provide students with the knowledge and skills required to undertake moderate to high level data manipulation and management in preparation for statistical analysis of data typically arising in health and medical research. In particular, students gain experience in data manipulation and management using two major statistical software packages (Stata and R) and acquire fundamental programme skills for efficient use of each of these software packages.
<b>Learning Outcomes:</b>	<p>The specific learning outcomes are:-</p> <ul style="list-style-type: none"> <li># Gain experience in data manipulation and management using two major statistical software packages (Stata and R).</li> <li># Learn how to display and summarise data using statistical software.</li> <li># Become familiar with the checking and cleaning of data.</li> <li># Learn how to link files through use of unique and non-unique identifiers.</li> <li># Acquire fundamental programming skills for efficient use of software packages.</li> <li># Learn key principles regarding confidentiality and privacy in data storage, management and analysis.</li> </ul>
<b>Assessment:</b>	Practical exercise (approx 4 hours of work, approx 600 words, no more than 4 pages) due in Week 2 (10%) Written assignment 1 (approx 10 hours of work, approx 1800 words, no more than 10 pages) due in Week 6 (30%) Written assignment 2 (approx 10 hours of work, approx 1800 words, no more than 10 pages) due in Week 8 (30%) Written assignment 3 (approx 10 hours of work, approx 1800 words, no more than 10 pages) due in Week 12 (30%)
<b>Prescribed Texts:</b>	Resources Provided to Students online: Course notes and assignments. Special Computer Requirements: Stata and R (open access) statistical software.

<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>	<ul style="list-style-type: none"><li># Independent problem solving,</li><li># Facility with abstract reasoning,</li><li># Clarity of written expression,</li><li># Sound communication of technical concepts</li></ul>
<b>Related Course(s):</b>	Graduate Diploma in Biostatistics Master of Biostatistics