

## ECON20003 Quantitative Methods 2

<b>Credit Points:</b>	12.50
<b>Level:</b>	2 (Undergraduate)
<b>Dates &amp; Locations:</b>	2010, Parkville This subject commences in the following study period/s: Summer Term, Parkville - Taught on campus. Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
<b>Time Commitment:</b>	Contact Hours: Semester 1 and 2: Two 1-hour lectures and a 1-hour tutorial per week; Summer Semester: Two 2-hour lectures and two 1-hour tutorials per week for six weeks Total Time Commitment: Not available
<b>Prerequisites:</b>	<b>316-130 Quantitative Methods 1 (/view/2010/316-130)</b> or 620-131 Scientific Programming and Simulation or 620-160 Experimental Design and Data Analysis or <b>620-159 Data Analysis 1 (/view/2010/620-159)</b> .
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	Please refer to Prerequisites and Corequisites.
<b>Non Allowed Subjects:</b>	Please refer to Prerequisites and Corequisites.
<b>Core Participation Requirements:</b>	For the purposes of considering requests 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 for 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: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>
<b>Coordinator:</b>	Dr Michael Coelli, Dr Wasana Karunaratne, Prof Lisa Cameron
<b>Contact:</b>	Summer: <a href="mailto:lakminik@unimelb.edu.au">lakminik@unimelb.edu.au</a> ( <a href="mailto:lakminik@unimelb.edu.au">mailto:lakminik@unimelb.edu.au</a> ) Semester 1: <a href="mailto:mcoelli@unimelb.edu.au">mcoelli@unimelb.edu.au</a> ( <a href="mailto:mcoelli@unimelb.edu.au">mailto:mcoelli@unimelb.edu.au</a> ) Semester 2: <a href="mailto:lcameron@unimelb.edu.au">lcameron@unimelb.edu.au</a> ( <a href="mailto:lcameron@unimelb.edu.au">mailto:lcameron@unimelb.edu.au</a> )
<b>Subject Overview:</b>	This subject provides students with background mathematical and statistical skills necessary for solving a wide range of commerce problems. It draws heavily on examples from accounting, management and marketing and, to a lesser extent, economics and finance. Topics include: review of statistics; tests of the location of populations; simple and multiple regression for use with time series and cross section data, including interpretation of estimates, hypothesis testing and forecasting, an introduction to diagnostics; Logit models; an introduction to time series methods; and seasonality.
<b>Objectives:</b>	<ul style="list-style-type: none"> <li># Conduct and interpret a number of parametric and non-parametric tests of the location of quantitative populations.</li> <li># Complete simple and multiple regression analysis, appropriate tests on regression coefficients, analyse and interpret the results and explain the findings.</li> <li># Identify the circumstances under which test procedures may not be valid.</li> <li># Analyse several specific models often employed in the various fields within commerce.</li> <li># Identify the circumstances under which a model with a binary dependent variable is appropriate.</li> <li># Evaluate the results of a Logit model, test relevant hypotheses on the regression coefficients in a Logit model and explain the findings.</li> <li># Explain the difficulties that can arise when studying time series data.</li> <li># Interpret season factors and seasonally adjust data.</li> </ul>

	<ul style="list-style-type: none"> <li># Employ several methods to analyse and forecast time series data.</li> <li># Use and understand various publicly available statistics, including the many data series available describing the economy and markets.</li> </ul>
<b>Assessment:</b>	A 2-hour end-of-semester examination (70%), assignments not exceeding 20 pages in total (15%), a mid-semester exam (5%), and a mark based on tutorial attendance and participation (10%).
<b>Prescribed Texts:</b>	You will be advised of prescribed texts by your lecturer.
<b>Breadth Options:</b>	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> <li># <b>Bachelor of Arts</b> (<a href="https://handbook.unimelb.edu.au/view/2010/B-ARTS">https://handbook.unimelb.edu.au/view/2010/B-ARTS</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2010/B-ENVS">https://handbook.unimelb.edu.au/view/2010/B-ENVS</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2010/B-MUS">https://handbook.unimelb.edu.au/view/2010/B-MUS</a>)</li> </ul> <p>You should visit <b>learn more about breadth subjects</b> (<a href="http://breadth.unimelb.edu.au/breadth/info/index.html">http://breadth.unimelb.edu.au/breadth/info/index.html</a>) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<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># High level of development: collaborative learning; statistical reasoning; application of theory to practice; interpretation and analysis; synthesis of data and other information; evaluation of data and other information; use of computer software.</li> <li># Moderate level of development: oral communication; written communication; problem solving; critical thinking; receptiveness to alternative ideas.</li> <li># Some level of development: team work; accessing data and other information from a range of sources.</li> </ul>
<b>Related Course(s):</b>	Graduate Diploma in Economics
<b>Related Majors/Minors/Specialisations:</b>	Economics Economics Major