

ECOM30004 Time Series Analysis and Forecasting

Credit Points:	12.5																		
Level:	3 (Undergraduate)																		
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.																		
Time Commitment:	Contact Hours: Two 1-hour lectures and a 1-hour tutorial/practice class per week Total Time Commitment: An estimated total time commitment of at least 170 hours.																		
Prerequisites:	<p>One of:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ECOM30001 Basic Econometrics</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>ECOM30002 Econometrics</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p>OR both of the following:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MAST20004 Probability</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MAST20005 Statistics</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ECOM30001 Basic Econometrics	Semester 1	12.50	ECOM30002 Econometrics	Semester 1	12.50	Subject	Study Period Commencement:	Credit Points:	MAST20004 Probability	Semester 1	12.50	MAST20005 Statistics	Semester 2	12.50
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ECOM30001 Basic Econometrics	Semester 1	12.50																	
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MAST20004 Probability	Semester 1	12.50																	
MAST20005 Statistics	Semester 2	12.50																	
Corequisites:	None																		
Recommended Background Knowledge:	Please refer to Prerequisites and Corequisites.																		
Non Allowed Subjects:	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ECOM90004 Time Series Analysis and Forecasting</td> <td>Semester 2</td> <td>12.5</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ECOM90004 Time Series Analysis and Forecasting	Semester 2	12.5												
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Core Participation Requirements:	<p><p>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.</p> <p>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: http://services.unimelb.edu.au/disability</p></p>																		
Coordinator:	Dr Barry Rafferty																		
Contact:	Barry Rafferty barry.rafferty@unimelb.edu.au (https://mce_host/faces/htdocs/barry.rafferty@unimelb.edu.au)																		
Subject Overview:	Normally topics will include current techniques used in forecasting in finance, accounting and economics such as regression models, Box-Jenkins, ARIMA models, vector autoregression,																		

	causality analysis, cointegration and forecast evaluation, and ARCH models. The computer software used is <i>Eviews</i> .
Learning Outcomes:	On successful completion of this subject students should be able to: <ul style="list-style-type: none"> # Apply the Box-Jenkins methodology for identifying stationary and non-stationary univariate forecasting models, # Apply VAR/VECM models to analyse relationships between economic and financial time series, # Apply ARCH models to analyse and forecast the volatility of financial time series.
Assessment:	A 2-hour end-of-semester examination (60%) and four assignments of no more than 1000 words each due in weeks 3, 6, 9 and 12 (40% - 10% each).
Prescribed Texts:	You will be advised of prescribed texts by your lecturer.
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2016/B-ARTS) # Bachelor of Biomedicine (https://handbook.unimelb.edu.au/view/2016/B-BMED) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2016/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2016/B-MUS) # Bachelor of Science (https://handbook.unimelb.edu.au/view/2016/B-SCI) # Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2016/B-ENG) <p>You should visit learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On successful completion of this subject, students should have improved the following generic skills: <ul style="list-style-type: none"> # Evaluation of ideas, views and evidence # Synthesis of ideas, views and evidence # Strategic thinking # Critical thinking # Accessing economic and other information # Summary and interpretation of information # Application of Windows software # Statistical reasoning # Problem solving skills # Written communication
Related Majors/Minors/Specialisations:	Economics Master of Economics electives