COURSE OUTLINE

Read this entire course outline carefully!

Any items, rules, requirements in this course outline may be subject to changes. When this happens I will announce it during the lecture. Announcements in the lecture supersede any information contained in this course outline.

Course Description

This course provides an introduction to econometric methods and their applications. The main workhorse of applied econometrics is the linear regression model and the course will develop its theory and look at a wide range of applications. The course emphasizes intuitive and conceptual understanding as well as hands on econometric analysis using modern computer software on data sets from economics and business. Students learn how to conduct empirical studies, as well as how to analyze and interpret results from other empirical works. We cover a broad range of topics, including: brief review of basic statistics; ordinary least squares estimation and its properties; choice of functional form; departures from standard OLS assumptions; time series analysis.

This is a hand-on course with a focus on applications in economics as well as business. A standard statistical software will be used during computer sessions, no special programming skills are required.

Learning Outcomes

Upon successful completion of the requirements for this course, students will

- understand and appreciate the challenges of empirical modelling in economics and business;
- have a deep knowledge of regression analysis (including statistical foundations, underlying assumptions, properties, extensions, limitations);
- understand econometric methods relevant for analyzing data used in economics and business;
- be able to use econometric software to conduct regression analysis on actual data sets;
- be able to interpret and critically evaluate the results of empirical analysis;
- be able to read and understand academic journal articles that make use of the concepts and methods that are introduced in the course;
- be able to independently conduct small scale empirical research and write up results;
- be able to think clearly about the relationship between data, model and estimation in econometrics.

Prerequisites

To enroll in this course you must have completed EMET1001 Foundations of Economic and Financial Models and STAT1008 Quantitative Research Methods, or STAT2001 Introductory Mathematical Statistics, and ECON1101 Microeconomics 1.
Communication

The official website for this course is <http://EMET2007.Readthedocs.org>

I will frequently make announcements on the homepage of the Course Website (under "Announcements").

The official forum for announcements of any kind are the lectures. If necessary, I will contact students electronically using their official ANU student e-mail address. If you want to contact me send an e-mail to

juergen.meinecke@anu.edu.au

E-mail addresses are only to be used when you need to contact staff about administrative or academic matters. They are NOT to be used for instructional purposes.

Textbook

The textbook for the course is Introduction to Econometrics (third edition, 2012) by Stock and Watson. Chiefly library has several copies of the textbook. I strongly recommend that you buy a copy of the book as I base the lecture and practice sessions on it.


Software

The econometric software for this course is "Stata". Here’s a quick wiki summary of what Stata is: <http://en.wikipedia.org/wiki/Stata>. From my own experience, Stata is an exhaustive, well-documented, powerful and user-friendly statistical software. You will get to know Stata during the tutorial in a "learning-by-doing manner".

Staff

Academic

If you have any academic inquiries or problems regarding the course, you should contact your regular tutor first. They should be able to handle most of the problems you might have. If you need to contact me or the Head Tutor, here are our contact details.

<table>
<thead>
<tr>
<th>Name</th>
<th>Juergen Meinecke</th>
<th>Luis Uzeda Garcia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job title</td>
<td>Instructor</td>
<td>Head tutor</td>
</tr>
<tr>
<td>Office</td>
<td>HW Arndt Building 25a</td>
<td>HW Arndt Building 25a</td>
</tr>
<tr>
<td>Location</td>
<td>Room 1022</td>
<td>Room 2019</td>
</tr>
<tr>
<td>Hours</td>
<td>Open door</td>
<td>TBA</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:juergen.meinecke@anu.edu.au">juergen.meinecke@anu.edu.au</a></td>
<td><a href="mailto:luis.uzeda@anu.edu.au">luis.uzeda@anu.edu.au</a></td>
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Administrative

For any administrative inquiries or problems (e.g., tutorial enrollment, exam scheduling, supplementary exams, etc.) you should contact Karissa Carkeet (School of Economics Course Administrator) or Finola Wijnberg (School of Economics School Administrator).
Class Meeting Times

There will be a two-hour lecture, a one-hour problem solving tutorial and a one-hour computer tutorial per week. (The tutorials start in week 2.)

Lectures

Although you do not have to attend lectures, I encourage you to do so. It is nicer for me to see some students and it is also more social.

Lectures will be held in the following venue at the following time:

<table>
<thead>
<tr>
<th>Day</th>
<th>Tuesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>14-16</td>
</tr>
<tr>
<td>Location</td>
<td>R N Robertson Lecture theater (46e)</td>
</tr>
</tbody>
</table>

Problem Solving Tutorial

A large-group tutorial, the problem solving tutorial is an integral part of this course. Each week I will post a set of problem solving exercises that go hand in hand with the lecture material. We will work through the exercises together during this tutorial.

<table>
<thead>
<tr>
<th>Day</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>15-16</td>
</tr>
<tr>
<td>Location</td>
<td>R N Robertson Lecture theater (46e)</td>
</tr>
</tbody>
</table>

Computer Tutorials

The computer tutorials are another important part of this course. These tutorials are held in small groups. Your tutor will develop and present solutions to selected exercises in cooperation with you and your classmates. Solutions will not be made available in any other form.

Allocation to computer tutorial groups will be made via the ETA (Electronic Teaching Administrator).

Digital Lecture Delivery

I will record (both audio and visual) the lecture and the problem solving tutorial and post the resulting files on Wattle (the recordings are the only course content that I post there).

The computer tutorial sessions will not be available on Wattle (they are group learning sessions and as such do not lend themselves to audio recordings).
Consultation and Help Desk

I have an open door policy for the course, which means that you can come by my office (Arndt 1022) any time you want to seek help. To increase your chances of finding me, I commit to being at my office on Tuesdays between 10am and 13pm. But again: any other day and time would be ok too (just that I may not always actually be in my office.) You can also always e-mail me if you want to set up individual consultation times with me.

In addition, the tutors for EMET2007 will offer consultation. At the time of writing this course outline, I expect to set up one Help Desk that is run every week at the same time. The location and time have not been decided yet but will be announced early in the semester.

Workload

University study requires at least as much time and effort as a full–time job. You are expected to attend all lectures and tutorials (4 hours per week). You should expect to put in at least 6 hours per week of your own study time for this course in addition to the 4 hours of lectures and tutorials.

Roadmap

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction, review of statistics</td>
</tr>
<tr>
<td>2</td>
<td>Review of statistics</td>
</tr>
<tr>
<td>3</td>
<td>Principles of econometric modelling</td>
</tr>
<tr>
<td>4-5</td>
<td>Simple linear regression model</td>
</tr>
<tr>
<td>6</td>
<td>Review, discussion of practice midterm</td>
</tr>
<tr>
<td>7</td>
<td>Midterm exam</td>
</tr>
<tr>
<td>8-10</td>
<td>Multiple linear regression model and extensions</td>
</tr>
<tr>
<td>11-12</td>
<td>Time series regression models</td>
</tr>
<tr>
<td>13</td>
<td>Review, discussion of practice final</td>
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</tbody>
</table>

Note that the number of weeks per topic are merely estimates and may differ as we go along.

Course Assessment

The following table summarizes the assessable items for the course.

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Due date</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>Tuesday, week 6</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm exam</td>
<td>Week 7</td>
<td>25%</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>Tuesday, week 13</td>
<td>10%</td>
</tr>
<tr>
<td>Final exam</td>
<td>TBA</td>
<td>45%</td>
</tr>
<tr>
<td>Tutorial participation</td>
<td>Throughout</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note, the midterm and final exams are compulsory. If you miss any exam without approval by the School or College, you will fail the entire course!
Assignments

Working through exercises is an effective method of learning econometrics, as it is with most mathematical subjects. That means that the assignments are more than simply part of the assessment for the course. Students will be required to submit two written assignments during the semester.

The assignments will require computer work as well as analytical work. These assignments should be your own work. You may discuss assignments with classmates, but you should do all your own computing and writing of the assignments. It is an offense against the University’s regulations to copy from other students’ assignments.

Assignments should be submitted by dropping them into a specially labeled assignment box at the Research School of Economics. (Contact the Course Administrator for details.) The front page of the submitted assignments must show your name, student number and the course name (EMET2007). Assignments missing any of this information will receive a mark of zero.

Assignments must be submitted by 12pm (which means noon or midday) on the due date. Important notice: late assignments are not accepted under any circumstances. If you submit your assignment late and you do not have a university approved reason, you will receive a mark of zero on that assignment. If you have a university approved reason for not handing in an assignment, then the value of the final exam will be increased by 10 percentage points to compensate for the missed work.

Further details about assignment submission will be given during lectures.

Midterm Examination

The midterm examination will be held during lecture time on Tuesday of week 7. The exam covers all material from weeks 1 through 6 of the course (including the tutes). The exam will be marked out of 100. It is your responsibility to make yourself available for the midterm examination.

No make-up midterm examination will be offered. Should you miss the midterm exam for a valid reason (see Rules and Policies below) then your final exam will be used to make up for the missed midterm exam.

Final Examination

Examinable material covers the whole semester, including material already covered in the midterm exam. The exam will be marked out of 100.

The final exam will be held in the exam period at the end of the semester. Details will be posted on the ANU exam timetable site.

Tutorial Participation

Your participation is an essential part in the overall learning experience (both for you as well as your classmates!) in the course. I will evaluate you on your participation during the computer tutorial sessions. (You will not be assessed for your participation in the problem solving tutorial.) Feel free to participate and contribute to these sessions. Do not be afraid to give wrong answers; as long as you are constructively engaged, there is no such thing as a wrong answer.

After every tutorial your tutor will take note of students who participated in class and at the end of the semester I will aggregate these numbers to an overall participation mark. Roughly, I will give 10 marks to regular participators, 5 marks to occasional participators and zero marks to students who rarely or never participate. Feel free to seek feedback from me or your tutor during the semester on your participation performance.
Scaling of Grades

Final scores for the course will be determined by scaling the raw score totals to fit a sensible distribution of grades. Scaling can increase or decrease a mark but does not change the order of marks relative to the other students in the course. If it is decided that scaling is appropriate, then the final mark awarded in a course may differ from the aggregation of the raw marks of each assessment component.

Rules and Policies

It is your responsibility to familiarize yourself with the rules and regulations and the policies and procedures that are relevant to your studies at the ANU.

ANU has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University’s academic standards, and implement them. You can find the University’s education policies and an explanatory glossary at: ANU Policies.

Students are expected to have read the Student Academic Integrity Policy before the commencement of their course.

Other key policies include:

- Student Assessment (Coursework)
- Student Surveys and Evaluations

The University also offers a number of support services for students. Information on these is available online from ANU Studentlife.