Course Outline for Economics 306: Introductory Econometrics

The official course outline is available on the teaching section of the departmental website: http://www.strath.ac.uk/economics/currentstudents/3rdyear/classes/. Details on course level, credits, prerequisites and assessment are provided there. The purpose of this unofficial outline is to provide additional details not available on the official outline.

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The Web: I will use the web extensively for announcements and course materials (i.e. problem sheets, copies of the overheads used in lectures, a mock exam paper, details about the empirical project and other materials will all be placed there). The direct link to the course website is http://personal.strath.ac.uk/gary.koop/ie.html, but can also be accessed through MyPlace. Please look at the website regularly.

Module Organization: This module will be taught using a combination of lectures, computer laboratory classes and tutorials. There will be 15 hours of lectures and 3 hours each of computer labs and tutorials.

Lecture Schedule: 15 hours of lectures will be given in this course. These will be run as 2 lecture hours per week (Tuesday 4-5 in lecture room M403 and Thursday 3-4 in L210) for the first 7 weeks of term and 1 lecture (on Tuesday) in week 8.

Tutorial Schedule: The tutorials and computer labs will run in weeks 4 (which is the week beginning 14 February) through 9. The computer labs/tutorials will run in alternating weeks (i.e. one week you will have a tutorial, the following week a computer lab). The tutorials will begin in week 4, with computer labs beginning in week 5.

Assessment: There will be a 2 hour written examination counting for 50% of the total mark for the course. A mock exam paper will be made available on the course website. This will illustrate the structure of the exam. To give an idea of what is expected of you, sample answers will be provided (and, if time permits, discussed in tutorial/lecture periods).

The remaining 50% of the assessment for this module will come from an empirical project, in which you are required to apply the econometric techniques learned in the course with a data set. Details of the project will be made available on the web and discussed in the lectures.

Reading List: The textbook for this course is *An Introduction to Econometrics* by Gary Koop. This is available in the bookstore or my webpage (http://personal.strath.ac.uk/gary.koop/) has a link to its website should you wish to order it off of the internet.

If you want alternative textbook sources which cover this material, you may want to look at:

Econometric Models and Economic Forecasts (4th edition) R. Pindyck and D. Rubinfeld (McGraw-Hill)

or

Modern Econometrics by R. L. Thomas (Addison-Wesley).

Course Content:

Note: Chapter citations are from my textbook.

1. A non-technical review of the regression model (Chapters 1 and 2).
2. The econometrics of the simple regression model under the classical assumptions (Chapter 3).
3. The Multiple Regression Model under the classical assumptions (Chapter 4).
4. Freeing up the classical assumptions: heteroskedasticity, autocorrelated errors and instrumental variables (Chapter 5).
5. Univariate time series analysis: the autoregressive model and unit roots (Chapter 6).
6. Regression with time series variables (Chapter 7).

Note 1: There are appendices at the end of the textbook which introduce the basic tools in mathematics and probability which will be used in the course. With some exceptions, this material will not be covered in the lectures. You should be aware of much of this material from previous study, but if not please read Appendices A and B in your own time.

Note 2: Problem sheets will provided for the tutorials and computer labs. However, the end of each chapter of the textbook contains many additional questions you may wish to work on.