ECON 3150/4150 - INTRODUCTORY ECONOMETRICS

TEACHING PLAN SPRING 09

Time and place: Friday 10.15-12.00,   Auditorium 7 Eilert Sundts Hus

Duration: 13 lectures of two hours.

First lecture: January 16
Last lecture: May 8

Lecturer: Yngve Willassen

Reading list: Principles of Econometrics (Third edition) by R. C. Hill, W. E. Griffiths, G. C. Lim. Chapters 1-9.

The objectives of this course is similar to that of the book which says that: "The book is not an econometric cookbook, nor is it in a theorem-proof format. It emphasizes motivation, understanding, and implementation." The course, being an introduction to econometrics, but it is also meant to provide the prerequisite knowledge for the more advanced courses in econometrics given at our department. A thorough understanding of the regression model is therefore important.

Although we allow for some randomness in progress we will try to stick to the following schedule for the various topics.

1   Least Square Regression. Chapter 2 (two weeks)
      On econometric modelling (2.1-2.2)
      The least square method (2.3)
      The properties of least square estimators (2.4-2.7)

2   Inference in the simple regression model. Chapter 3 (two weeks)
      Simple t-tests (3.2-3.4)
      Confidence intervals for the regression coefficients (3.1)
      The P-value (3.5)

3   Prediction and modelling issues. Chapter 4 (one week)
      Applying the simple regression model for prediction purposes (4.1)

Measuring the goodness-of-fit and the effect of changing the units of measurements (4.2-4.3)
Log-linear models (4.4)

4   The multiple regression model. Chapters 5-6 (two weeks)
The least square method with two regressors (5.1-5.6)
Hypothesis testing in multiple regression, the F-test (6.1-6.6)
The gross and partial effects of an explanatory variable, the omitted variable problem (6.6)
Collinearity between the explanatory variables (6.7)

5   Simple non-linear regressions and dummy-variables. Chapter 7 (two weeks)
Dummy-variables as explanatory variables (7.2-7.4)
Log-linear models (7.5)

6   Heteroskedasticity. Chapter 8 (one week)
Consequences for the least square estimator (8.2)
The generalised least square estimator (8.3)
The handling of heteroskedastic disturbances (8.4)

7   Dynamic models and auto-correlated disturbances. Chapter 9 (two weeks)
Consequences for the least square estimator (9.1- 9.3)
Testing for auto-correlation (9.4)
Auto-regressive models (9.5-9.7)