Department of Economics and Finance

ECON*6140
Econometrics I
Fall 2013

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Office Hours: Mon., Wed., 10-11 am

It is your responsibility as a student to be aware of and to abide by the University's policies regarding academic misconduct, e-mail communication, maintaining copies of out-of class assignments, what to do when you cannot meet a course requirement and the drop date for this semester. To better understand these policies, visit:

http://www.uoguelph.ca/economics/node/1115

COURSE OUTLINE

The course will develop the classical linear regression model and the relevant probability and statistical concepts that are used in the analysis of that model. Also we will consider the above model within the framework of maximum likelihood. We will present a short introduction into the generalization of the above model to include nonlinear interactions of parameters.

We will use primarily lecture notes that will be periodically distributed in class, although students will have to supplement the material in the notes from the following textbooks:

R. Davidson and J. Mackinnon, *Econometric Theory and Methods,* Oxford University Press, 2004.

W. Greene *Econometric Analysis,* **Prentice Hall, 2002.**

Topics to be covered:

(1) Review of the classical regression model with fixed regressors.
(2) Non-linear estimation
(3) Maximum likelihood estimation
(4) The three classical test statistics
(5) Instrumental Variable estimation (IV) and the generalised method of moments (GMM)

We will make extensive use of the general unix computer system as well as the computer software that is available in the computer lab. You can use any computer package that you feel confortable with.

Grading

There will be assignments worth 20% of the final mark, a midterm **(Date TBA)** worth 30% and a final examination**,** worth the remaining 50%. .

You will be asked to complete an evaluation of this course at some time during the last two weeks of the semester. The Department of Economics policy regarding the conduct and use of these evaluations will be found at:

http://www.uoguelph.ca/economics/academics/courses/course-evaluation

Useful References

R. Davidson and J. Mackinnon, Estimation and Inference in Econometrics, Oxford University Press, 1993.

T. Amemiya, Advanced Econometrics, Harvard, 1985.

E. Greenberg and C. E. Webster, Advanced Econometrics: A Bridge to the Literature, Wiley, 1983.

Z. Griliches and M. Intriligator, Eds., Handbook of Econometrics, Vols. 1 and 2, North Holland, 1983 and 1984.

J. Hamilton, Time Series Analysis, Princeton University Press, 1994.

A. C. Harvey, The Econometric Analysis of Time Series, Philip Allan.

D. F. Hendry and K. F. Wallis, Eds., Econometrics and Qualitative Economics, Basil Blackwell, 1984.

R. V. Hogg and D. T. Craig, Introduction to Mathematical Statistics, 4th Ed., Mackmillan, 1978.

G. G. Judge et al., The Theory and Practice of Econometrics, 2nd Ed., Wiley, 1985.

C.R. Rao, Linear Statistical Inference and its Applications, 2nd Ed., Wiley, 1973.

A. Spanos, Statistical Foundations of Econometric Modelling, Cambridge, 1986.

H. White, Asymptotic Theory for Econometricians, Academic Press, 1984.