



General Course Information

Instructor: Thanasis Stengos
Email tstengos@uoguelph.ca
Office Location MacKinnon 715
Office Hours Mon., Wed., 10-11 am
Department/School Department of Economics and Finance

Class Schedule: Mon., Wed., 8:30-9:50am

Classroom: Rozanski Hall, rm 107

Course Description

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.

Course Resources

Required Texts:

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.

Indicative Content

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 comfortable 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%.

Useful Reference:

- 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.

Course Policies

Grading Policies

<https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/genreg/genreg-as-gradeint.shtml>

University Policies

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration: <https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/>

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Graduate Calendar:

<https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/>

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: <http://www.csd.uoguelph.ca/csd/>

Course Evaluation Information

Please refer to: <https://www.uoguelph.ca/economics/course-evaluation>

Drop date

The last date to drop one-semester courses, without academic penalty, is November 6th, 2015. For regulations and procedures for Dropping Courses, see the Academic Calendar:

<https://www.uoguelph.ca/registrar/calendars/graduate/2015-2016/>