



## Department of Economics Course Outline

		<b>Term:</b>	Fall 2004
<b>Course:</b>	Economics 711.10	<b>Section:</b>	01
<b>Time:</b>	TBA	<b>Place:</b>	TBA
<b>Instructor:</b>	Chris Auld		
<b>Office:</b>	SS 436	<b>Telephone:</b>	220-4098
<b>Office Hours:</b>	Tuesdays and Thursdays, 1:30 3:30 or drop in, or by appointment.	<b>E-mail:</b>	<a href="mailto:auld@ucalgary.ca">auld@ucalgary.ca</a>

Course home page: <http://jerry.ss.ucalgary.ca/e71110.html>

### 1 Course objectives.

This is a readings course. Students will become familiar with computational methods for

- Obtaining econometric estimates by maximizing an objective function.
- Simulating economic quantities from estimated econometric models.
- Simulating econometric models to ascertain their performance, that is, conduct Monte Carlo type experiments.

and possibly other topics according to the interests of the students and instructor.

### 2 Recommended reference books.

We will make use of substantial portions of:

Davidson R. and J. Mackinnon *Econometric theory and methods*.  
Judd, K. *Numerical methods in economics*.

### 3 Lectures.

This is a readings course; there will be no regularly scheduled lectures. Students may be asked to present papers informally to the department.

#### **4 Assignments.**

There will be several smallscale assignments given over the course of the term asking students to implement algorithms to calculate econometric estimators, simulators, or Monte Carlo experiments.

#### **5 Evaluation.**

Half weight on assignments and presentations, half weight on a take-home final examination.

#### **6 Readings.**

(To be completed.) Readings will consist of both methodological pieces and applications. Readings will consist of relevant portions of the texts above and may also include:

Dufour and Khalef (2001) "Monte Carlo test methods in Econometrics," in Baltagi, *A Companion to Theoretical Econometrics*.

Ferrall, Gregory, and Tholl (1997) "Endogenous work hours and the practice patterns of Canadian physicians," *Canadian Journal of Economics* 31:1?27.

Hajivassiliou, V. and P. Ruud (1994) "Classical estimation methods for LDV models using simulation," in *Handbook of Econometrics* vol 4.

Hardle, W. and O. Linton (1994) "Applied Nonparametric Econometrics," in *Handbook of Econometrics* vol 4.

Krieder and Riphahn (2000) "Explaining applications to the U.S. disability system: A semiparametric approach," *Journal of Human Resources* 35(1):82115.

McCullogh and Vinod (1999) "The Numerical Reliability of Econometric Software," *Journal of Economic Literature* 37(2), 633665.

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