Instructors:

Hiro Kasahara, Buchanan Tower 1016, Email: hkasahar@mail.ubc.ca
Paul Schrimpf, Buchanan Tower 926, Email: schrimpf@mail.ubc.ca

Course Webpage:   http://faculty.arts.ubc.ca/hkasahara/econ628.html

Time and Location:  Monday and Wednesday from 12:30-14:00, West Mall Swing Space 309

Office Hours:  TBA

Teaching Assistant:  Chad Kendall, Email: cwk5@interchange.ubc.ca

Textbook:

Other References:

Course Description:  This course covers topics in applied econometrics including (1) estimation of nonlinear models, (2) simulation-based methods, (3) linear panel data analysis, (4) heterogeneous treatment effects, (5) quantile regression, and (6) estimation of structural dynamic models. The emphasis will be on learning how to use various applied econometric techniques. There will be six homework assignments that will require analyzing the data and writing computer codes in Matlab (or Octave)\(^1\), and they will be an important part of the final grade. No work will be accepted after the lecture on the due date, unless a written proof of the emergency situation that causes the delay is provided. The final exam has two-parts: a theory part and a computer programming (take-home) part.

---

\(^1\)Lectures and problem set questions and solutions will primarily use Matlab. Octave is an open-source program largely compatible with Matlab. You can download Octave for Windows or OS X from [http://octave.sourceforge.net](http://octave.sourceforge.net). There is a graphical interface for Octave on Windows that looks a lot like Matlab available at [http://guioctave.com/](http://guioctave.com/). If you use Octave, you should be aware of the differences between Octave and Matlab, and try to write code that will run in Matlab as well, see [http://www.gnu.org/software/octave/FAQ.html#MATLAB-compatibility](http://www.gnu.org/software/octave/FAQ.html#MATLAB-compatibility).
Grading: Assignments (20% of the final grade), Final theory exam (40%), Final programming exam (40%).
Course Outline and Readings

*Required Readings

1. Estimation of Nonlinear Models

2. Simulation-based Methods

3. Linear Panel Data Analysis
   - Strict Exogeneity Assumption and Random Effects/Fixed Effects/First Difference: Wooldridge (Chapter 10)*, CT (Chapter 21)
4. Treatment Heterogeneity


5. Quantile Regression

- Quantile regression: Koenker and Basset (1978), Koenker and Hallock (2001), Koenker (2005)*

6. Estimation of Structural Dynamic Models


References


Economics and Statistics 76(4), 591608.


