

University of Waterloo
Department of Economics
Economics 721: Econometrics II
Winter 2022

Lecture time/location: Tuesday and Thursday, 10:00am - 11:20am, AL 209

Instructor: Tom Parker

Course website: [link](#)

Office: HH 206

Office hours: Tuesdays, 3pm - 4pm or by appointment

Email: tmparker@uwaterloo.ca

Course Objectives

This course is the second in a series of graduate-level econometrics courses. We will cover the asymptotic theory behind results that you have used in previous econometrics courses and discuss specialized models that can be used to analyze a variety of topics relevant to empirical work in economics.

References

The recommended text is *Econometrics* by Bruce Hansen, available [here](#). Chapters of Hansen are noted in the topic list below. The first two topics will be covered relatively quickly, as I will assume that you are familiar with linear models through exposure to ECON 621 or an equivalent course.

Topics

Chapters of Hansen's text are listed in parentheses:

1. Asymptotic theory in the linear model (1 week, H 6-10)
2. Instrumental variables and generalized method of moments (1 week, H 11-13)
3. M-estimators (1 week, H 22)
4. Time series data and methods (2 weeks, H 14-16)
5. Panel data models (2 weeks, H 17-18)
6. Nonparametric methods (2 weeks, H 19-20)
7. Nonlinear models (2 weeks, a selection from H 23-27)
8. Model selection and averaging (whatever time we have left, H 28-29)

Evaluation

Your mark will be made up of the following parts:

Homework (60%) : Distributed approximately every 3 weeks for a total of four assignments.
Assignments may be completed in groups of up to two people.

First exam (20%) : Held after methods for panel data.

Second exam (20%) : Held after nonlinear models.

Course structure and plans for a disrupted term

This course is intended to be in a lecture and discussion format delivered in-person. However, things may not go according to plan. If we are not able to meet in person, I will record video

lectures of the course material and the course will be held asynchronously (with office hours held synchronously at the usual time but online). Exams will be held during class time but if the course is disrupted, the exams will be held at the same time as they normally would, just remotely (I will spell out the details close to exam time if that occurs).

Other administrative details:

Academic Integrity

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity](#) webpage and the Arts [Academic Integrity](#) webpage for more information.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under [Policy 71 – Student Discipline](#). For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline. For typical penalties check [Guidelines for the Assessment of Penalties](#).

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4. When in doubt, please be certain to contact the department’s administrative assistant who will provide further assistance.

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#).

Accommodation for Students with Disabilities

Note for students with disabilities: [The AccessAbility Services office](#), located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Mental Health Support

All of us need a support system. The faculty and staff in Arts encourage students to seek out mental health supports if they are needed.

On Campus

- Counselling Services: counselling.services@uwaterloo.ca / 519-888-4567 ext 32655
- **MATES:** one-to-one peer support program offered by Federation of Students (FEDS) and Counselling Services
- Health Services Emergency service: located across the creek from Student Life Centre

Off campus, 24/7

- **Good2Talk:** Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- Grand River Hospital: Emergency care for mental health crisis. Phone: 519-749-433 ext. 6880
- **Here 24/7:** Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- **OK2BME:** set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213

Full details can be found online at the Faculty of ARTS [website](#) Download [UWaterloo and regional mental health resources \(PDF\)](#) Download the [WatSafe](#) app to your phone to quickly access mental health support information

Territorial Acknowledgement

We acknowledge that we live and work on the traditional territory of the Attawandaron (Neutral), Anishinaabeg and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes ten kilometers on each side of the Grand River.