

University of Waterloo
Department of Economics
Econ 622/722: Applied Microeconometrics
Winter 2017

Instructor Information

Professor Stéphanie Lluís
Office: Hagey Hall, Room 217
Office Phone (519) 888-4567, ext. 32960
E-mail: slluis@uwaterloo.ca

Office Hours: Mondays: 4:00pm-6:00pm.

Course Information: Mondays & Wednesdays, 14:30-15:50pm in EV3 3408

Course Description, Goals and Learning Outcomes

This course presents empirical methods relevant to the analysis of cross-sectional and longitudinal micro-data and have applications in the fields of labour economics, health economics, industrial organization and environmental economics. The objectives of the course are to learn about the various methods used in applied microeconomics research and to provide practical experience applying these methods using a statistical software package.

Prerequisites: Econ 621

Readings

Cameron, C. and P. Trivedi, Microeconometrics: Methods and Applications, New York: Cambridge University Press, 2005.

Wooldridge, Jeffrey M., Econometric Analysis of Cross Section and Panel Data (2nd ed.), Cambridge: MIT Press, 2010.

Outline of Topics and Associated Book Chapters

Data Issues Collecting, describing, and formatting issues	CT 3, 9, 24, 27
Specification Issues Linear and nonlinear models and associated estimation methods: OVB and measurement errors in the linear model, non linearities, interactions Binary, multinomial, ordered response and tobit models	CT 4, 5, 8, 26 W 4, 6, 15, 16
Identification Strategies Randomized Treatments and DID estimation Endogenous Treatments and IV, Heckman Selection, and GMM estimations Further Treatment Evaluation: Matching and RD estimators	CT 6, 25 W 5, 18
Further Topics Panel Data analysis: Fixed-effect, Random-effect and GMM estimators Duration Models	CT 21, 22, W 10, 11, 13 CT 17 - W 20

Course requirements

Econ 622: There will be two term tests during the semester, 4 assignments and a final exam.

Econ 722: In addition to the Econ 622 requirements, students will be asked to summarize and present articles (list provided during the first week of class) and write a term paper (the fourth assignment). Furthermore, there will be final exam questions for PhD students specifically related to the articles presented.

Term Tests

The first test will be held on **Monday Feb the 6th** and the second test will take place on **Monday March the 13th**. Both tests will be held during class hours in the usual classroom.

Assignments

There will be 4 assignments which will consist in performing a combination of computer and theory based exercises.

Extra question for PhDs: Through assignments' sub-questions, PhD students will be asked to build up the elements of their term paper. It will start with the finding of a microdata set and applying the necessary statistical techniques seen in class to clean up, format and describe the data. The completion of assignment 3 will help students think about questions and identification strategies. The term paper (assignment 4 for the PhD students) will be about executing the main estimation technique associated with their own question and interpreting the results. Students are responsible for finding the data, come up with the main question and the appropriate estimation method. Group work is welcome but the final term paper needs to be written and submitted individually. Details about the format of the term paper will be given in class.

PhD additional requirements

PhD students will be asked to choose a series of research articles on methods of their choice, summarize them in writing and present them in class.

On the final exam, there will be additional questions related to the student's chosen articles.

PhD students have to write a term paper involving the use of a methodology presented in class. Subquestions in each of the first three assignments will help them build the paper.

Final Exam

A final examination will be given during the Winter Term and will cover the entire term's material with more emphasis on the last part of the course (since the last term test).

Course Assessment

The course grade for MA students will be computed based on the following weighting scheme:

4 Assignments	25%
2 Midterms	50%
Final Exam	25%

For PhD students, the weighting scheme will be:

3 Assignments	15%
2 Midterms	30%
Final Exam	20%
Articles	10%
Term paper	25%

Missed Midterm/Final Exam

There is no make-up for the midterm tests. A student who is ill and misses the test needs to provide appropriate medical documentation (no photocopies, *only original documents*) to **me within 48 hours of the missed test**. If the appropriate documentation has been submitted on time, the weight of the test will be shifted to the final exam's weight. Note that students need to write at least one of the two term tests to pass this course. Under no circumstances will the weight of the term tests or final exam be shifted to the term paper.

A student who has been ill (documentation required, no photocopies, only original documents) and has missed the scheduled final exam **MUST** petition the department **within 48 hours of the missed final exam** to write the departmental deferred examination. If the student has failed to write the departmental deferred examination, the student will automatically receive a grade of 0 for the missed deferred final examination. For more information on the Economics Deferred Exam Policy please visit <https://uwaterloo.ca/economics/current-undergraduates/policies-and-resources/deferred-final-exam-policy>.

Grading Policy

Students who would like their test or assignments regraded need to ask the instructor immediately after the test or assignment has been given back. The regrading will apply to the entire test and may not automatically result in a higher grade than before.

Late Work

Assignments submitted late will receive a daily penalty of 15%. Assignments submitted after I have done the correction in class will receive a grade of 0.

Electronic Device Policy and Classroom Expectations

Turn off and do not answer your cell phone. Laptop computers are not permitted in class unless the student can show that it is used for the purpose of notes taking.

Institutional-required statements for undergraduate course outlines approved by Senate Undergraduate Council, April 14, 2009

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity Webpage \(https://uwaterloo.ca/academic-integrity/\)](https://uwaterloo.ca/academic-integrity/) and the [Arts Academic Integrity Office Webpage \(http://arts.uwaterloo.ca/current-undergraduates/academic-responsibility\)](http://arts.uwaterloo.ca/current-undergraduates/academic-responsibility) for more information.

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](https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70) (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70>). When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline

A student is expected to know what constitutes academic integrity to avoid committing academic offenses and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (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. For information on categories of offenses and types of penalties, students should refer to [Policy 71, Student Discipline](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm) (<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>). For typical penalties check [Guidelines for the Assessment of Penalties](http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm) (<http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm>).

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](http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm) (<http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>).

Note for Students with Disabilities

The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 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 OPD at the beginning of each academic term.