

University of Waterloo
Economics 322 – Econometrics 1
Spring 2019

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HH 104

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I will only guarantee a quick response to emails that include “Econ 322” in the subject line of the message.

Class Meeting:

EV3 1408

Tuesday/Thursday 10:00 to 11:20

Note—This course has required tutorials. Times are as follows:

ECON 322 (101): Thursdays @ 2:30 – 3:20pm

ECON 322 (102): Thursdays @ 3:30 – 4:20pm

ECON 322 (103): Thursdays @ 4:30 – 5:20pm

All in PAS 1237 (computer lab)

TA Information:

Tutorial Leader – TBA

TA (Grading): TBA

Course Description

The purpose of this course is to introduce students to the main concepts and tools used in econometrics. In particular, we will learn when and how to apply multivariate regression analysis. We will see the basic assumptions and techniques used to run estimations and make inference in the context of a linear equation framework. We will learn to recognize specification and data problems and what to do about it. The course also covers a basic framework for thinking about causality. Each topic will be approached with a mix of intuitive explanations, theoretical characterization and practical applications, including interpretation of a regression output.

Text and Software

Required Text: "Introductory Econometrics: A Modern Approach" by Jeffrey M. Wooldridge (4th edition or 5th edition). It is also on reserve at the Dana Porter Library.

Important Note: There are some additional required readings. Information on these is discussed on the first day and can be found in the "First Class" slides @ LEARN, and .pdf files are located in the readings folder @ LEARN.

Data analysis is an important component of this course. We will be using the statistical software package Stata. All information relating to software is located in a separate file @ LEARN.

LEARN

- I make heavy use of LEARN. This course outline including any revisions, and most importantly our updated schedule will be posted at LEARN. It is advisable to be in the habit of checking our revised schedule, particularly if you miss classes.
- Other announcements, assignments, all data we will be using, assigned problems, and all materials relating to the tutorials will also be available at LEARN.

Course Requirements and Assessment

1. Assignments (3)	Due Dates @ LEARN	25%
2. Midterm 1	June 6 th	20%
3. Midterm 2	July 16 th	20%
4. Final	Scheduled by Registrar	35%

KEY NOTES:

- There are 3 formal assignments for the course. In addition to these, there will be weekly assigned problems (problems typically done by hand) from the text and from me. **Please see the information on assignment policies below.**
- The format for both midterms will be primarily short answer/problems with the possibility of a small number of multiple-choice questions; the final exam is short answers/problems and a long answer. Midterm marks will be posted on LEARN. Only the Registrar's Office can issue final grades.
- Schedule and location of the final exam will be announced by the Registrar Office. Please visit <http://registrar.uwaterloo.ca/exams/index.html> for further details later in this term. Travel plans are NOT a sufficient reason to have a final exam deferred.
- Requests for accommodation based on religious holiday must be submitted to the Associate Dean.
- **Midterm II is not cumulative. The final exam is cumulative.**
- Combination of particular distribution and absolute measures will be used to determine the course grades. The university grading system will be relied on as benchmark.
- No programmable (graphing) calculator or electronic devices are allowed during the tests. You are required to have your student ID with you for all exams. Random checks may be made during exams.

Tentative Schedule

(Check my "Schedule" Excel file @ LEARN for Updates—this is tentative)

Date	Topic
Weeks 1 & 2	Review of the Sampling Distribution and Central Limit Theorem. Review of Hypothesis Testing. Estimation and inference for Simple Regression.
Weeks 3 & 4	Estimation and inference in Multivariate Regression
Weeks 5 through 7	Multivariate Regression special topics: Specification issues; Interaction terms; Measurement error and more
Week 8	Causality, Selection bias, and the Potential Outcomes Model
Weeks 9	Random Assignment
Weeks 10 through 12	Introduction to Estimation and Inference with Non-experimental Data

Policies

1. Class Policies

Assignment Policy

Assignments are **only** accepted in hard copy to the Drop-box in the Economics Department, 2nd floor Hagey Hall. The drop-box is located just down the Hall from the Department's main office. There are multiple signs through the Department. Please note that the assignments and their respective due dates are available from the beginning of term. *Late assignments are not accepted* (illness is not a valid reason for missing an assignment).

Examination Policy

Missing a Midterm Due to Illness During the Term

No make-up midterm is provided for Economics 322. Missing a midterm will automatically result in a grade of zero for that midterm. If the illness can be documented with a UW Verification of Illness Form (the only acceptable document), with approval you may transfer the weight of the missed midterm to the final exam (and only the final exam). This remedy is a privilege and not a right.

Missing the Final Exam Due to Illness

Missing the final exam is a very serious matter which automatically results in a grade of zero for the final exam and possibly a failing grade for the course. *Please carefully read the Economics Department policy on deferred final exams for instructions.* Please see the policy below on deferred exams in the Department of Economics.

Submission of Exam Papers

Late submission of exam papers is not accepted and missed submissions will receive a zero mark for whatever reason. Exam papers must be submitted in whole and on time in the exam room.

Exam papers

- a) Not submitted on time
- b) Submitted with missing pages
- c) Submitted elsewhere (with the exception of students with permission to write in the AS Office)
- d) Not received at all

will receive a grade of zero.

Important note: It is the responsibility of students to ensure that they write exams in the location, date, and time assigned to their section. Students writing exams in the wrong section will be assessed a **20%** penalty on the final exam grade. There will be no accommodation for possible differences in exam material or content.

Attendance Policy

Class attendance is an integral part of your educational experience. While attendance is not a graded component of this course, it is an important factor in ensuring your complete understanding of the material presented. You are responsible for all material presented in the scheduled lecture periods whether you choose to attend lectures or not.

Classroom Protocols

The highest level of courtesy and professional behaviour are expected from every student. In particular, be punctual and turn off all audible ringers on all devices during class. As a courtesy to the custodial staff, if you have coffee, water, etc., please dispose of your garbage when you leave the classroom.

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

Economics Department Deferred Final Exam Policy

Deferred Final Exam Policy found at

<https://uwaterloo.ca/economics/undergraduate/resources-and-policies/deferred-final-exam-policy>

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.

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](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71) (<https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71>)

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](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70) (<https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70>), Section 4.

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read [Policy 72 - Student Appeals](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-72) (<https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-72>).

Other sources of information for students:

[Academic Integrity website \(Arts\)](https://uwaterloo.ca/arts/current-undergraduates/student-support/ethical-behaviour)

<https://uwaterloo.ca/arts/current-undergraduates/student-support/ethical-behaviour>

[Academic Integrity Office \(UWaterloo\)](https://uwaterloo.ca/academic-integrity/) <https://uwaterloo.ca/academic-integrity/>

Accommodation for Students with Disabilities

Note for students with disabilities: The [AccessAbility Services](https://uwaterloo.ca/disability-services) office (<https://uwaterloo.ca/disability-services>), located on the first floor of the Needles Hall extension (NH 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.