ECON 281: Introduction to Applied Econometrics- Syllabus for Online Class

Spring 2020

MWF 1:00 PM - 1:50 PM, Tech Institute Lecture Room 2

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Office Hours: will be posted on Canvas (or by appointment)

Teaching Assistant	**Section Times/Locations**
TA Guillaume Gex	21: Tu, 5:00-5:50
TA Kristina Manysheva	22: Th, 5:00-5:50
TA Guillaume Gex	23: Tu, 6:00-6:50
TA Kristina Manysheva	24: Th, 6:00-6:50
TA Alex Doser	25: Tu, 5:00-5:50
TA Junyan Guan	26: Th, 5:00-5:50
TA Sergio Armella Olazabal	27: Tu, 5:00-5:50
TA Sergio Armella Olazabal	28: Th, 5:00-5:50

TA Sergio Armella Olazabal (SergioArmellaOlazabal2014@u.northwestern.edu)
TA Alex Doser (alexanderdoser2023@u.northwestern.edu)
TA Guillaume Gex (guillaumegex2023@u.northwestern.edu)
TA Junyan Guan (JunyanGuan2016@u.northwestern.edu)
TA Kristina Manysheva (KristinaManysheva2021@u.northwestern.edu)

TA office hours and locations will be posted on Canvas.

LEARNING OUTCOMES

In this class, students will: Increase their knowledge of both regression with one regressor and regression with multiple regressors. Familiarize themselves with Stata.

COURSE WEBSITE/ ZOOM LECTURES

This course has a website on Canvas. Everyone should automatically be enrolled in the Canvas website upon official enrollment in the class. I will post my lecture notes on the website. Print out the lecture notes. On Canvas, I'll also post an announcement with the link to my recorded lecture (recorded through Zoom). Finish filling out the lecture notes as you watch the recording of the Zoom lecture.

This class or portions of this class will be recorded by the instructor for educational purposes. These recordings will be shared only with students enrolled in the course and will be deleted at the end of the Spring Quarter. Your instructor will communicate how you can access the recordings. Unauthorized student recording of class sessions is prohibited, and faculty should not permit individual students to record class sessions for any reason.

TEXTBOOK AND CALCULATOR

The textbook for the course is *Introduction to Econometrics* by James H. Stock and Mark W. Watson. The textbook is optional. You can use the third edition, the third edition update, or the fourth edition. You will also need a calculator for this class. You can use any type of calculator.

STATA

Some problem sets in this course will require you to use the statistical software, Stata. You need to have Stata on your computer. To purchase your own copy of the software for your computer, a six-month license for Stata/IC is available for $48. See https://www.stata.com/order/new/edu/gradplans/student-pricing/ to purchase. Make sure you purchase Stata during the first week of class. You will be emailed a link to download Stata after you make the purchase.

SECTIONS
The default is that the TA's are going to hold Zoom office hours during their scheduled section times. They can answer questions you might have about Stata. If the TA's are going to present any material during section in a given week we will post an announcement noting that.

PROBLEM SETS
Most weeks, I will post a problem set on Canvas. You will need to submit numerical answers or answer multiple choice questions on Canvas. Canvas will automatically grade your submissions. If you miss the deadline for submitting your answers, you will not receive credit for that problem set. For questions about how to complete the Canvas problem sets, read the policy_canvas_psets handout on Canvas (under Policies folder).

OFFICE HOURS
We will hold Zoom office hours. You can't check over your problem set answers during office hours. You need to complete the problem sets on your own. You can ask us questions about the course material or sample problems that we post on Canvas during office hours.

QUIZZES
There won't be any quizzes this term.

EVALUATION
Here are the assessments that will be used to determine your final grade:

Problem Sets
Exam #1 (cumulative)
Exam #2 (cumulative)
Final Exam (cumulative)

We will drop your lowest problem set score. The exams will be online and open-note.

Your final grade will be determined by whichever calculation is highest (method *a*, *b*, or *c*):

a) 20%×(Problem Sets) +40%×(Exam #1) + 40%×(Exam #2) + 0%×(Final Exam)
b) 20%×(Problem Sets) +40%×(Exam #1) + 0%×(Exam #2) + 40%×(Final Exam)
c) 20%×(Problem Sets) +0%×(Exam #1) + 40%×(Exam #2) + 40%×(Final Exam)

EXAM DATES
Exam #1 will be given online on Friday, May 8 from 1:00-1:50 pm central time.
Exam #2 will be given online on Friday, June 5 from 1:00-1:50 pm central time.
The Final Exam will be given online on Friday, June 12 starting at 9:00 am central time.

EXCUSED ABSENCES/ MAKEUP POLICIES/ INCOMPLETES

Problem Sets

There are no makeup Canvas problem sets. If you miss the deadline for submitting your answers (for any reason), you will not receive credit for that problem set. I would recommend submitting your answers well ahead of the deadline. We will drop your lowest problem set score.

Exams

If you decline to take Exam #1 (or cannot take Exam #1 for any reason), but do take Exam #2 and the Final Exam, then your final grade will be determined by whichever calculation is highest: method *a*, *b*, or *c*.

If you decline to take Exam #2 (or cannot take Exam #2 for any reason), but do take Exam #1 and the Final Exam, then your final grade will be determined by whichever calculation is highest: method *a*, *b*, or *c*.

If you decline to take Exam #1 (or cannot take Exam #1 for any reason) and decline to take Exam #2 (or cannot take Exam #2 for any reason), then your final grade will be determined by whichever calculation is lower (method *d* or method *e*):

d) 100%×(Problem Sets)
e) 100%×(Final Exam)

Incompletes

If you take the Final Exam, or start to take the Final Exam, then you cannot receive an excused absence for that assessment. Your exam score will be recorded. You wouldn't qualify for an Incomplete.

If you miss the Final Exam for an excused reason (such as an illness or family emergency), then you would need to email me and then petition for an Incomplete through the Dean's Office.

To qualify for an Incomplete if you do not take the Final Exam:

1) The Dean's Office would have to approve your Incomplete petition.

2) You would have to have taken either Exam #1 or Exam #2. (If you miss both Exam #1 (for any reason) and Exam #2 (for any reason), then you would not qualify for an Incomplete.)

3) It has to be possible for you to receive a final course grade of at least 65% if you take the makeup Final Exam.

If you receive an Incomplete, then you would take the makeup Final Exam during finals week of the fall term.

GRADING POLICIES

For questions on how to deal with rounding on problem sets and exams, read the policy_rounding handout on Canvas (under Policies folder). Final grades will be decided on the following scale:

Pass	≥ 65%
Not Pass	< 65%

NORTHWESTERN POLICIES

Academic Integrity

The Provost's Office maintains information on resources and university principles related to academic integrity; see http://www.northwestern.edu/provost/policies/academic-integrity/.

Disability Accommodations

Any student with a documented disability needing accommodations is requested to speak directly to the AccessibleNU office (http://www.northwestern.edu/accessiblenu/) and the instructor, as early as possible in the quarter (preferably during the first two weeks of classes). All discussions will be confidential.

Unauthorized student recording of classroom or other academic activities is prohibited

Unauthorized student recording of classroom or other academic activities (including advising sessions or office hours) is prohibited. Unauthorized recording is unethical and may also be a violation of University policy and state law. Students requesting the use of assistive technology as an accommodation should contact ANU. Unauthorized use of classroom recordings — including distributing or posting them — is also prohibited. Under the University's Copyright Policy, faculty own the copyright to instructional materials — including those resources created specifically for the purposes of instruction, such as syllabi, lectures and lecture notes, and presentations. Students cannot copy, reproduce, display or distribute these materials. Students who engage in unauthorized recording, unauthorized use of a recording or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.

TENTATIVE TOPICS COVERED

Review of Statistics/ Review of Random Variables
Chapter 4- Linear Regression with One Regressor
Chapter 5- Regression with a Single Regressor: Hypothesis Tests and Confidence Intervals
Chapter 6- Linear Regression with Multiple Regressors
Chapter 7- Hypothesis Tests and Confidence Intervals in Multiple Regression
Chapter 8- Nonlinear Regression Functions
Chapter 10- Regression with Panel Data
Chapter 11- Regression with a Binary Dependent Variable
Instrumental Variables (Introduction)