

ECO 231W  
Undergraduate Econometrics  
Summer 2019

Instructor: Alexis Orellana  
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## Syllabus

### Course Information:

Classes: TWR, 1pm-3:55pm, MEL 218

Office Hours: TBD. My office is located in Harkness 116G

**Prerequisite(s):** ECO 207 and ECO 230 (or equivalent SST 213 or MTH 203)

**Credit Hours:** 4

### Course Description:

Econometrics is based upon the development of statistical methods for estimating economic relationships, testing economic theories, and evaluating government and business policy. Practical uses of econometrics go far beyond academic research, and are relevant in virtually every branch of applied economics. The objective of this course is to equip students with a fundamental understanding of the theory and practice of cross-section econometrics.

**Course Website:** Blackboard (<https://learn.rochester.edu>).

**Textbook:** The course has no book. The material is presented in the notes.<sup>1</sup> If you want to review parts of the material, I suggest two books:

*Statistics, 4th Edition.* D. Freeman, R. Pisani and R. Purves.

*Introductory Econometrics: A Modern Approach, 5th Edition.* J. Wooldridge.

### Grade Distribution:

Homeworks	20%
Midterm Exam	30%
Final Exam	40%
Final Project	10%

### Course Policies:

- **General**

- Quizzes and exams are closed book.
- **No make-up quizzes or exams will be given.**

- **Homeworks**

- There will be two homeworks done in Stata. The homeworks are intended for you to practice programming and estimation techniques. The university has Stata (version 13) installed in all lab computers. Homeworks will be submitted using Blackboard.

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<sup>1</sup>Notes used with permission of Carol Caetano, assistant professor of Economics at the University of Georgia.  
<http://www.carolinacaetano.net/teaching/eco231w/download/index.html>

- There will be a class where I will teach how to use this software, as well as its main features.<sup>2</sup>
- **Late assignments will be penalized.**

- **Project**

- The project is a 5-10 pages essay where you will criticize a paper I will submit during this week. I suggest you to read it in advance as the course is very condensed and it can take some time to write a good essay. In addition, the midterm and the exam will include questions about this paper. As we progress on the syllabus you can discuss with me the weaknesses you observe on the paper, which will help you to write your arguments. More details about the structure next week.

- **Attendance and Absences**

- Attendance is not taken.
- However, students are responsible for all missed work, regardless of the reason for absence. It is also the absentee's responsibility to get all missing notes or materials.

- **Classroom Honesty Policy**

- See <http://www.rochester.edu/college/honesty> for the College Policy on the Academic Honesty.

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<sup>2</sup>I you need further information about how to use this software, you can check the Stata videos section in <http://www.carolinaetano.net/teaching/eco231w/download/index.html>

## Tentative Course Outline:

This outline might change as it depends on the progress of the class. All materials including homeworks, datasets and the paper will be posted on Blackboard.

Date	Content	Notes
<i>Week 1</i>		
May 21th	Notes 1: Scientific questions; Notes 2: Observational studies	
May 22th	Notes 3: Confounders	
May 23th	Notes 4: Beginning regression; Extra: Use of STATA	Paper is posted
<i>Week 2</i>		
May 28th	Notes 5: Regressions residuals	HW1 is posted
May 29th	Notes 6: Multivariate regression	
	Notes 7: R <sup>2</sup> , Linear model	
May 30th	Notes 8: Linear model, interpretation	HW1 questions
<i>Week 3</i>		
June 4th	Notes 9: Qualitative variables	<b>Homework 1 is due</b>
June 5th	Notes 10: Incorporating non-linearities	
June 6th	<b>Midterm</b> (same classroom)	HW2 is posted
<i>Week 4</i>		
June 11th	Notes 11: Theorems	
June 12th	Notes 12: More on theorems. Confidence intervals	
June 13th	Notes 13: Hypothesis testing	HW2 questions
<i>Week 5</i>		
June 18th	Notes 14: The F-test	<b>Homework 2 is due</b>
June 19th	Notes 15: Model failures 1; Notes 16: Model failures 2	
June 20th	Notes 17: Model failures 3	Questions about project
<i>Week 6</i>		
June 25th	Notes 18: Data failures 1; Notes 19: Data failures 2	
June 26th	Review	
June 27th	<b>Final exam</b> (same classroom)	<b>Project is due</b>