

THE FLORIDA STATE UNIVERSITY
ECO3431-0001
Analysis of Economic Data
Fall 2020

Instructor: Dr. Javier Cano-Urbina
Office: 257 Bellamy Building
Phone: (850) 644-7090
E-mail: jcanourbina@fsu.edu
Class: Tuesday & Thursday / 5:15PM - 6:30PM / BEL 0204
Office Hours: Monday & Wednesday / 3:00PM - 4:00PM

Prerequisites

Required courses are both ECO 2013 (Principles of Macroeconomics) and ECO 2023 (Principles of Microeconomics), and one of STA 2023 (Fundamental Business Statistics) or STA 4321 (Introduction to Mathematical Statistics).

This course is a prerequisite for ECO 4421 Introduction to Econometrics.

Course Description

This course provides basic skills in graphing and analyzing economics data. The first two blocks of the course are composed of an extensive coverage of probability and statistics that is necessary to understand the theory and practice of regression analysis. The third block of the course is devoted entirely to regression analysis. Some of the concepts discussed in the second and third block of the course are illustrated with widely-used statistics and econometrics software giving the student the opportunity to learn the application of some of the concepts discussed in class to economics data.

Course Outcomes

At the end of this course, the student will be able to:

- work with both discrete and continuous random variables, and use the probability distribution or density function as well as the cumulative distribution function to calculate probabilities.
- explain the mean and variance of a random variable and to calculate the mean and variance of a discrete random variable.

- describe the concepts of random sampling, sampling distributions, and the Central Limit Theorem, and will be able to find the sampling distribution of the sample mean.
- explain what is a point estimator and a confidence-interval estimator, what are the desirable properties of an estimator, and to find point and confidence-interval estimators of the population mean.
- explain the foundations of hypothesis testing, types I and II errors, size of a test, the p-value, and will be able to perform hypothesis testing for the population mean.
- interpret scatter plots, covariance, and sample correlation.
- describe the linear regression model, estimation of the linear regression model by the method of ordinary least squares (OLS), the sampling distribution of the OLS estimator, and confidence intervals and hypothesis testing in the linear regression framework.
- interpret the output from estimation and hypothesis testing from widely-used statistics and econometrics software.

Textbook (Required)

The textbook for this course is the eBook version of:

- Paul Newbold, William L. Carlson, and Betty M. Thorne. *Statistics for business and economics*. Prentice Hall, Boston, 8th edition, 2013

This eBook is part of the FSU Follett Access Opt-in Program that allows students to rent or purchase digital textbooks at a reduced cost and access them on a timely manner. To access this program's portal use the link:

- <https://ACCESSPortal.follett.com:443/OptIn/0208>.

The Canvas website for our class contains more information.

Assessment

Homework	20 %
Quizzes	25 %
Midterm Exam 1	16 %
Midterm Exam 2	16 %
Final Exam	23 %

Grading Scale

94-100	A	84-86	B	74-76	C	64-66	D
90-93	A-	80-83	B-	70-73	C-	61-63	D-
87-89	B+	77-79	C+	67-69	D+	0-60	F

Homework

- There are five homework assignments.
- Each assignment corresponds to one chapter in the textbook.
- Homework assignments will be completed and submitted online through Canvas.
 - Students have up to ten (10) attempts to complete the homework assignment.
 - Homework assignments are not timed.
- Time frame to complete and submit the assignment online:
 - Once the material for a specific chapter is fully covered in the classroom, the student will have **ten days** to complete and submit the homework online.
 - The instructor will announce in class and by e-mail the exact date when the assignment is available and when the ten-day countdown starts.
- Late submission:
 - After ten days, the assignment can be submitted but it is subject to a penalty. For each additional day after the ten-day window, the student will loose of 10% of the grade earned, as indicated in the following table:

Submit on Day	0–10	11	12	13	14	15	16	17	18	19	20+
Percent Grade Earned	100	90	80	70	60	50	40	30	20	10	0

- Extensions to complete and submit a homework assignment would only be granted for cases in which the student is not capable to work on the assignment **during the whole ten-days window** due to illness or a personal emergency.
 - Excused absence must be documented with the Dean of Students.
 - See **University Attendance Policy** below for excused absences.

Exercises for the Homework

- The exercises in each homework assignment are taken from the textbook exercises.
- **The Canvas website does not include the narrative of each exercise.** It only includes the reference to the exercise number and students will complete the assignment by providing the answers in the space provided.
 - The student must use the same textbook edition as indicated above. Any discrepancies are the student's responsibility. There is no flexibility if the student uses a different textbook edition.

Quizzes

- There are five quizzes each one corresponding to one chapter in the textbook.
- The quizzes are based on the material covered in the homework assignments of the same chapter.
- It is recommended that students work on their homework assignments first and only after that attempt to work on the quiz.
- Quizzes will be completed and submitted online through Canvas.
 - Students have **only one (1)** attempt to complete the quiz.
 - **All quizzes are timed.** The time assigned to each quiz varies depending on the length of the quiz.
- Time frame to complete and submit the quiz online:
 - The time frame to complete each quiz is the same as the time frame to complete the homework assignment (see previous section).
- Late submission:
 - The penalty for late submission of the quiz is the same as the penalty for late submission of the homework assignment (see previous section).

Attendance

Attendance to class is strongly encouraged. **Excused absences must be documented with the Dean of Students.** The instructor will then receive a notification directly from the office of the Dean of Students regarding the absence.

University Attendance Policy

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Effect of Attendance on Grades - Extra Credit!

Attendance to virtual lectures will count towards extra credit. **Students can earn up to six (6) points** that will be added to their final grade after curves and other adjustments are applied. The total extra credit points will be proportional to the number of virtual lectures attended.

Effect of Attendance Student Performance

Excessive absenteeism will have a negative impact on mastering the course material. **Lecture notes will not be provided for undocumented absences.** It is the student's responsibility to obtain these notes from classmates or consult the textbook. Students with documented absences may obtain the lecture notes from designated notetakers.

Notetakers Assistance

The Instructor will designate notetakers who will be taking notes for every lecture. Students with a documented absence may access the notes from the notetakers. Notetakers will earn six (6) extra-credit points added to their final grade after the curve and extra credit for attendance have been applied. Notetakers will be designated during the first two weeks of the semester.

Notetakers are responsible for attending all lectures as much as possible. The extra credit the notetaker earns will be proportional to the number of notes submitted, which cannot be less than 75% of the classes. If necessary, notetakers will also coordinate with the SDRC to assist classmates with notetaking assistance documented by the SDRC. If this is the case, notetakers will also earn ServScript credit.

Midterm Exams

- Midterm exams will be completed online through Canvas. The student will have a 24-hour window starting at 7:00 AM (Eastern Standard Time) of:
 - **Midterm Exam 1: October 1**
 - **Midterm Exam 2: November 17**
- Both midterm exams are timed. Time to complete the exam: **75 minutes**.

No Make-Up for Midterm Exams

Students who have a legitimate reason for personal emergency are allowed to be exempt from one of the two midterms.

- Excused absence would only be granted for cases in which the student is not capable to complete the exam **during the whole 24-hour window** due to illness or a personal emergency.
- Excused absence must be documented with the Dean of Students.
- See section **University Attendance Policy** on this syllabus for excused absences.

In such a circumstance, the final exam will be re-weighted.

- **It is necessary that students sit in at least one of the two midterm examinations**, otherwise the Instructor will not have enough evidence of performance to provide a fair evaluation.
 - If personal emergencies force a student to miss both midterm examinations, the Instructor will make the necessary arrangements with that student's Dean's office to accommodate that student leaving the class.

Final Exam

- The final exam will be completed online through Canvas. The student will have a 24-hour window starting at 7:00 AM (Eastern Standard Time) of:
 - **Thursday December 10**
- The final exam is timed. Time to complete the final exam: **2 hours**.
- Every student should double check this time and bring any difference in interpretation to the attention of the Instructor as soon as possible. "No-refund" airline tickets for an earlier time are not an acceptable excuse for rescheduling any exam.

Online Proctoring

- Both midterm exams and the final exam are **closed-book and will be proctored through Honorlock**.
- The University is covering the costs of this service, so this will not represent an extra expense for students.

Information about Honorlock

Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account, download software or schedule an appointment in advance. Honorlock is available 24/7 and all that is needed is a computer, a working webcam, and a stable Internet connection.

To get started, you will need Google Chrome and to download the Honorlock Chrome Extension. You can download the extension at www.honorlock.com/extension/install

When you are ready to test, log into Canvas, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session by webcam as well as recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Good luck! Honorlock support is available 24/7/365. If you encounter any issues, you may contact them by live chat, phone (844-243-2500), and/or email (support@honorlock.com).

Last-minute reminders for using Honorlock

- Technical preparation: Be sure to test your system and turn off extensions like spell-checkers and automatic translators, if these could cause a violation of exam policy. If you are a Mac user who has recently upgraded, you may need to re-enable screen sharing for applications like Honorlock and Zoom to work.
- When you're ready to take the exam, have a clear ID ready, perform a thorough room scan when directed, and follow all exam instructions carefully.
- Always contact Honorlock directly via the chat tool if you encounter problems during your exam. This will greatly facilitate response times and solutions.
- During the exam, try to avoid behaviors that might raise a red flag for proctors to review, such as talking aloud to someone else or having others in the room. (Honorlock's automatic proctors are so sensitive they will even flag photographs of faces in the background!)
- Remember: The FSU Academic Honor Policy and Student Conduct Code remain in force and suspected violations continue to be referred for investigation as appropriate.

Academic Honor Policy

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy>.)

Remote Teaching through Zoom

- All lectures will be held synchronously at the day and times indicated above using Zoom.
- Students are required to have their video on during Zoom calls.
 - The instructor could allow for exceptions if a student does not have a camera.
 - The student must notify the instructor as soon as possible when this is the case.

Course Outline

- This is the tentative course outline. It is subject to variations.

Topic	Textbook Reference	
	Chapter	Section
Discrete Random Variables	4	1, 2, 3, 7
Continuous Random Variables	5	1, 2, 3
Sampling Distributions	6	1, 2
Estimation	7	1, 2, 3
Hypothesis Testing	9	1, 2, 3
Simple Linear Regression	11	1, 2, 3, 4, 5

Americans with Disabilities Act

Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Student Disability Resource Center; and
- (2) bring a letter to the instructor indicating the need for accommodation and what type.

Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center has been provided.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center

874 Traditions Way

108 Student Services Building

Florida State University

Tallahassee, FL 32306-4167

(850) 644-9566 (voice)

(850) 644-8504 (TDD)

sdrc@admin.fsu.edu

<http://www.disabilitycenter.fsu.edu/>

Syllabus Change Policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.