Course Syllabus

ECO4421: Econometrics; Section RVC

Instructor Information Table

	Instructor Information
Richard Whittaker	• **Email: Canvas Inbox** • **Office: PG6 - Room 140G** • **Office Hours: TH 2:00- 3:00 pm eastern time**

Course Time Zone | Eastern Standard Time (EST). Course due dates are according to this time zone.

Course Description and Purpose

Application of statistics and economic theory to formulating, estimating, and drawing inferences about relationships among economic variables. Coverage includes linear regression model, heteroscedasticity, serial correlation, multicollinearity, and simultaneous equations.

Course Objectives

For you to learn Econometrics, so you can use these skills you fulfill your aspirations in a manner that is enjoyable and engaging.

Policies

Before starting this course, please review the following pages:

- Policies
- Netiquette
- Technical Requirements and Skills
- Accessibility and Accommodation
- Panthers Care & Counseling and Psychological Services (CAPS)
- Academic Misconduct Statement

Course Prerequisites

If the course has prerequisites: This course has a prerequisite(s). Review the Course Catalog webpage for prerequisites information.

Proctored Exam Policy

Please note that the information contained in this section applies only if your course requires a proctored exam.

Through a careful examination of this syllabus, it is the student's responsibility to determine whether this online course requires proctored exams. Please visit our Student Proctored Exam Instructions webpage for important information concerning proctored exams, proctoring centers, and important forms.

Textbook and Course Materials

Textbook Table

Essentials of Econometrics

Damodar N. Gujarati & Dawn C. Porter
4th Edition
978-0-07-337584-7
You may purchase your textbook online at the FIU Bookstore

Course Communication

Communication in this course will take place via the Canvas Inbox. Check out the Canvas Conversations Tutorial or Canvas Guide to learn how to communicate with your instructor and peers using Announcements, Discussions, and the Inbox. I will respond to all correspondences within *insert turnaround time*.

Quizzes

In order to mitigate any issues with your computer and online assessments, it is very important that you take the Practice Quiz from each computer you will be using to take your graded quizzes and exams. Assessments in this course are not compatible with mobile devices and should not be taken through a mobile phone or a tablet. For more information, please review the important information about quizzes page.

Assignments

Please review the important information about assignments page.

Grading Criteria

The final course grade will be computed as follows:

Course Requirements	Weight	Dates
Homework	10%	
Exam 1	30%	Thursday, June 2, 2022
Exam 2	30%	Thursday, June 30, 2022
Exam 3	30%	Thursday, July 28, 2022

Grading

Homework	10%	A	93+	B-	77-79	F	0-56
Exam 1	30%	A-	89-92	C+	74-76		
Exam 2	30%	B+	84-88	C	67-73		
Exam 3	30%	B	80-83	D	57-66		

First Day of Class Zoom Meeting

Zoom Meeting Info (Monday)

Richard Whittaker is inviting you to a scheduled Zoom meeting.

Topic: ECO4421 Zoom Meeting
Time: May 9, 2022 07:15 PM Eastern Time (US and Canada)

Join Zoom Meeting
https://fiu.zoom.us/j/94980846761?pwd=Z1owV2Jwd2FyN0hjclJMU1UzcVg1UT09

Meeting ID: 949 8084 6761
Passcode: yp01Wr

Tentative Schedule:

Week 1	**Topics:**
	
	• **Review**
	  ○ Appendix A: Review of Statistics: Probability and Probability Distributions
	
	Read:
	
	• Appendix A
	
	Notes:
	
	• Distrubition Tables
	• ECO4421_Notes_AppendixA
	
	Videos:
	
	• Syllabus
	  ○ Syllabus
	• Appendix A:
	  ○ Appendix A1
	  ○ Appendix A2 - A3
	  ○ Appendix A4
	  ○ Appendix A5
	  ○ Appendix A6

Week 2	**Topics:**
	
	• Appendix B: Characteristics of Probability Distributions
	• Appendix C: Some Important Probability Distributions
	  ○ Normal Distribution
	  ○ t Distribution
	
	• Chapter 1: The Nature and Scope of Econometrics
	
	Read:
	
	• Appendix B, C, Chapters 1
	
	Notes:
	
	• ECO4421_Notes_AppendixB
	• ECO4421_Notes_AppendixC
	
	Videos:
	
	• Appendix B
	• Appendix C
	
	Homework
	
	• Homework 1

Week 3	**Topics:**
	
	• **Chapter 2: Basic Ideas of Linear Regression: The Two-Variable Model**
	  ○ 2.1 The meaning of regression
	  ○ 2.2 The population regression function (prf): a hypothetical example
	  ○ 2.3 Statistical or stochastic specification of the population regression function
	  ○ 2.4 The nature of the stochastic error term
	  ○ 2.5 The sample regression function (srf)
	  ○ 2.6 The special meaning of the term "linear" regression
	  ○ 2.7 Two-variable versus multiple linear regression
	  ○ 2.8 Estimation of parameters
	  ○ 2.9 Putting it all together
	
	Read:
	
	• Chapter 2

Week 4	**Topic** • **Exam 1 Review** • **Exam 1**

Week 5	**Topics:**
	
	• **Chapter 3: The Two-Variable Model: Hypothesis Testing**
	  ○ 3.1 The classical linear regression model
	  ○ 3.2 Variances and standard errors of ordinary least squares estimators
	  ○ 3.3 Why OLS? the properties of OLS estimators
	  ○ 3.4 The sampling, or probability, distributions of OLS estimators
	
	Read:
	
	• Chapter 3

Week 6	**Topics:** • **Chapter 3: The Two-Variable Model: Hypothesis Testing** ○ 3.5 Hypothesis testing (part 1)

Week 7	**Topics:**
	
	• Intro to R and Rstudio
	• Install R and R Studio
	  ○ Install instructions for Macintosh
	  ▪ Downloading and Installing R & R Studio for Mac
	  ○ Install instructions for Windows 10
	  ▪ Install R and RStudio on Windows 7, 8, and 10
	
	• Working with R

Week 8	**Topic** • **Exam 2 Review** • **Exam 2**

Week 9	**Topics:**
	
	• **Chapter 3: The Two-Variable Model: Hypothesis Testing**
	  ○ 3.5 Hypothesis testing (part 2)
	  ○ 3.6 How good is the fitted regression line: the coefficient of determination
	  ○ 3.7 Reporting the results of regression analysis
	  ○ 3.8 Computer output of the math s.a.t. score
	  ○ 3.9 Normality tests
	
	Read:
	
	• Chapter 3

Week 10	**Topics:**
	
	• **Chapter 4: Multiple Regression: Estimation and Hypothesis Testing**
	  ○ 4.1 The three-variable linear regression model
	  ○ 4.2 Assumptions of the multiple linear regression model
	  ○ 4.3 Estimation of the parameters of multiple regression
	  ○ 4.4 Goodness of fit of estimated multiple regression: multiple coefficient of determination, r2
	  ○ 4.5 Antique clock auction prices revisited 103 interpretation of the regression results
	  ○ 4.6 Hypothesis testing in a multiple regression: general comments
	  ○ 4.7 Testing hypotheses about individual partial regression coefficients
	
	Read:
	
	• Chapter 4

Week 11	**Topics:**
	
	• **Chapter 4: Multiple Regression: Estimation and Hypothesis Testing**
	
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	  ○ 4.8 Testing the joint hypothesis that b2 =b3 =0 or r2 =0
	  ○ 4.9 Two-variable regression in the context of multiple regression: introduction to specification bias
	  ○ 4.10 Comparing two r 2 values: the adjusted r2
	  ○ 4.11 When to add an additional explanatory variable to a model
	  ○ 4.12 Restricted least squares
	
	Read:
	
	• Chapter 4
	
	Exam Review
	
	• **Exam 3 Review**

Week 12	**Exam** • **Exam 3**