

ECN422

Introduction to Statistics and Econometrics

Course Offering: 06/29/2020-08/07/2020

Instructor	Dr. Yimin Yi	Phone	701-729-2667
Office	042 Eggers Hall	E-mail	yyi102@syr.edu
Office Hours	Friday 9-11 am(ET) online or by appointment		

Prerequisite / Co-requisite:

ECN 301 (OR 311) AND ECN 302

Audience:

This course is intended for BA economic students and is not a substitute for ECN 521 and/or ECN 522.

Course Description:

Basic theory and application of probability, statistical inference, and regression analysis for economics majors. Designed to expose the student to the statistical techniques economists use in estimating, testing, and forecasting economic relationships.

Additional Course Description:

The course begins with a discussion of how to identify a sufficiently interesting question and how to assemble a data set appropriate for empirically examining the answer. From there we will continue to develop important practical skills by analyzing data sets. New econometric tools are introduced along with the explanation of the intuition underlying each individual tool, before introducing the technical details required to actually implement the tool. Because of the importance of correct interpretation of the results we will pay particular attention to developing correct interpretation skills. To be able to use these econometric tools, students will be introduced to STATA commands required to perform the analysis in the statistical package.

Credits:

3

Learning Objectives:

After taking this course, students will be able to:

Assess the appropriate statistical methodology and appropriate data for a given research question.

Generate a statistical estimate, test result, or forecast of interest

Interpret the statistical meaning of an estimate, test result, or forecast through

inference. Check the robustness of a given statistical result.

Use STATA to fit economic models with cross sectional data sets.

Bibliography/ Texts / Supplies – Required:

- (1) Practical Econometrics: Data collection, Analysis, and Application, Christiana E. Hilmer, San Diego State University, Michael J. Hilmer, San Diego State University. ISBN: 0073511412
 - You may instead purchase e-book (not from the bookstore).
 - Amazon.com has multiple used copies of the textbook for sale.
- (2) Access to STATA: We will be learning a statistical software called STATA. Bird library computers have STATA installed on them. The latest version is STATA 16, but any version later than STATA 11 will work for the purpose of this course. Purchasing STATA is also an option. Visit: <http://www.stata.com/order/new/edu/gradplans/student-pricing/> Six-month license worth \$48 approximately will be sufficient for this course.
- (3) Internet Access: Steady and consistent Internet access is required. Given the countless computer problems that can incur, please do not wait until the last minute to submit assignments.
- (4) Lecture Notes: All lecture notes are posted in the form of recorded PowerPoints on SU Blackboard.

Bibliography/ Texts / Supplies– Additional:

- (1) *Statistics with Stata: Version 12*, Professor Lawrence C. Hamilton's. Intended to bridge the gap between statistical texts and Stata's own documentation, *Statistics with Stata* demonstrates how to use Stata to perform a variety of tasks.

(2) Doing economics

Textbook by Steven A. Greenlaw

Requirements:

Your course grade will be determined by your performance across two (2) units:

Unit 1 consists of:

- Chapters: 1,2,3,4 and 5
- Homework 1, Quiz 1, Homework 2, Quiz 2 and Exam 1

Unit 2 consists of:

- Chapters: 6,7,8 and 9
- Homework 3, Quiz 3, Exam 2

Discussion Boards

Occasionally there will be few online discussion forums posted on blackboard. These discussion boards are a way to ensure that you can seek help from your fellow classmates and learn by helping others too.

First discussion board forum will be to introduce yourself to me and to your other classmates.

Discussion Boards *are not graded* for points. Your participation may be rewarded with some extra credit points, occasionally!

Exams

There will be one midterm exam and one **comprehensive** final exam. All exams will consist of multiple choice and true/false questions. All exams will cover material from textbook, instructor's lectures, handouts, and assignments. There is no make-up exam. If you miss a midterm exam with an excuse conforming to university regulation, your final exam grade will be applied to the missed exam. Each exam will be worth 100 points each.

Exams **are STRICTLY timed at 2 hours**, which means that once an exam *starts you will have only 2 hours to complete the exam*. Therefore, it is important that you choose to take your exam during a time that you can work undisturbed. There will be no make-up exams, without prior approval. Any conflicts with the scheduled exam time must be arranged with me **PRIOR** to the exam. You must notify me of any issues by 10:00PM (EST), **TWO DAYS BEFORE** the test.

Exam 1 will open on Friday 7/24/20. It will open at 8am and will remain open until 11:59pm.

Exam 2 will open on Friday 8/07/20. It will open at 8am and will remain open until 11:59pm.

Homework

There will be three (3) homework assignments, including both theoretical and empirical questions, throughout the semester. Homework assignments will test students' knowledge of the appropriate statistical methodology and interpretation of an estimate taught through lectures.

Homework's will consist of multiple choice and true/false questions. Each homework will be worth 50 points. All homework assignments are open and posted on blackboard. Below are the due dates.

All Homework assignments will be due in the evenings at 11:59pm EST

Homework 1 is due on Monday, 7/13/2020

Homework 2 is due on Thursday, 7/23/2020

Homework 3 is due on Thursday, 8/06/2020

Quiz

There will be three (3) quizzes covering material from the lectures. Each quiz will be worth 10 points. Quizzes will consist of multiple-choice questions and True/ False questions. Quizzes will test students' knowledge of the appropriate statistical methodology and interpretation of an estimate. All Quizzes are open and posted on blackboard. Students will get one attempt to complete the quiz. You can take as long as you want, but once started, you have to finish the quiz. **All Quizzes will be due on evenings at 11:59pm EST**

Quiz 1 is due on Friday, 7/10/2020

Quiz 2 is due on Wednesday, 7/22/2020

Quiz 3 is due on Wednesday, 8/05/2020

Extra Credit Assignments

There might be couple extra credit assignments during the course. Please keep checking the course blackboard website for updates on extra credit assignments.

Grading:

Grading will be based on the homework assignment (150 points), quizzes (30 points), the one midterm exam (100 points), and the final exam (100 points).

Total Possible Points: 380

Homework Assignments: 150

Quizzes: 30

Exams: 200

Grades*	Grade points / credit*	Percentage Range	Total Points
A	4.0	93.0-100	353.4-380
A-	3.66	90.0-92.9	342-353.02
B+	3.33	87.0-89.9	330.6-341.62
B	3.0	83.0-86.9	315.4-330.22
B-	2.66	80.0-82.9	304-315.02
C+	2.33	77.0-79.9	292.6-303.62
C	2.0	73.0-76.9	277.4-292.22
C-	1.66	70.0-72.9	266-277.02
D	1.0	67.0-69.9	254.6-265.62
D-	0.66	60.0-66.9	228-254.22
F	0	59.9 & below	265.62 & below

* source: <http://www.syr.edu/registrar/students/grades/faq.html>

Example calculations for hypothetical student:

- Homework 1= 35/50
- Quiz 1=5/10
- Exam 1= 75/100
- Homework 2= 40/50
- Quiz 2 = 6/10
- Homework 3= 50/50
- Quiz 3= 9/10
- Final Exam 85/100
- Total Points Earned= $(305/380)*100=80.26=B-$

Course Specific Policies

There is no make-up exam. If you miss midterm exam with an excuse conforming to university regulation, your final exam grade will be applied to the missed exam.

Additional Information:

1. Everything is contained on blackboard.syr.edu.

- **All assignments are due at 11:59pm EST.** For homework's and quizzes you may start then save your work and return later to complete these tasks as long as it is done before the due date- Only for Quizzes and Homework's.

- **Exams which are also due by 11:59pm EST** and are only available for *a one day window* (morning evening) during the scheduled exam week. Once you open an exam you have *two hours* to complete it. You cannot save and return later.

2. **Communication/Office Hours:** The best way to reach me is via email, yyi102@syr.edu. Between the hours of 8:30 AM and 4:30 PM (Eastern Time: EST), Monday-Friday, I am usually able to respond to an email within 1-2 hours. I will check emails at night and weekends and try my best to reply to your email timely but maybe a little slower!

3. **Etiquette:**

Because this course relies entirely on the written word for communication, it is important that we all be mindful of appropriate postings. Comments that may be intended to be light and funny may easily come across as insulting without the context of facial expressions and voice inflections. Therefore, students are expected to be respectful in all forms of their communication with other students and myself. I encourage you to visit the website, www.albion.com/netiquette, and take their short *Netiquette* quiz as it nicely explains many common mistakes we (students and teachers) make in our Internet correspondences.

Students are responsible for adhering to all course procedures and policies. Honesty, integrity, and respects for others are fundamental expectations in the course.

***Academic Integrity Policy**

Syracuse University's academic integrity policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit.

Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The university policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same written work in more than one class without receiving written authorization in advance from both instructors. The presumptive penalty for a first instance of academic dishonesty by an undergraduate student is course failure, accompanied by a transcript notation indicating that the failure resulted from a violation of academic integrity policy. The presumptive penalty for a first instance of academic dishonesty by a graduate student is suspension or expulsion. SU students are required to read an online summary of the university's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice. For more information and the complete policy, see <http://academicintegrity.syr.edu/>.

Disability-Related Accommodations

If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498, TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Diversity and Disability:

Syracuse University values diversity and inclusion; we are committed to a climate of mutual respect and full participation. My goal is to create learning environments that are useable, equitable, inclusive and welcoming. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or accurate assessment or achievement, I invite any student to meet with me to discuss additional strategies beyond accommodations that may be helpful to your success.

Religious Observances Notification and Policy

SU religious observances notification and policy, found at <http://hendricks.syr.edu/spiritual-life/index.html>, recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes and by the submission deadline for flexibly formatted classes.

Course Schedule:

Week/Lecture	Topic	Required Reading and Assignment
Unit 1		
Week 1 (6/29-7/05)	Chapter 1, 2, & 3	Watch the lecture videos & STATA introduction videos Read Chapter 1, 2,& 3
Week 2 (7/06-7/12)	Chapter 4 & 5	Watch the lecture videos and Read Chapters 4& 5 <i>Quiz 1 is due on 7/10</i>
Unit 2		
Week 3 (7/13-7/19)	Chapter 6 and Chapter 7	Watch the lecture videos and STATA regression videos Read Chapters 6 & Chapter 7 Homework 1 due on 7/13
Week 4 (7/20-7/26)	Chapter 6 and Chapter 7	<i>Quiz 2 is due on 7/22 and</i> <i>Homework 2 due on 7/23.</i> <i>Exam 1 will be held on 7/24</i>
Week 5 (7/27-8/02)	Chapter 8 and Chapter 9	Watch the lecture videos and READ chapter 8 and chapter 9
Week 6 (8/03-8/07)	Review chapters 1,2,3,4,5,6 and 7	<i>Quiz 3 due on 8/5, Homework 3 is due on 8/6.</i> <i>Final (final assignment) is due on 8/7.</i>