



ECO 321

Econometrics

Mondays and Wednesdays, 8:30 am - 9:50 am ET

Online

Instructor

Camilo Rubbini

camilo.rubbini@stonybrook.edu

Course Website: <https://blackboard.stonybrook.edu/>

Office Hours via *zoom*: Tuesdays 8:00 pm to 10:00 pm.

Zoom Link: click [here](#) to access the *zoom* meetings with the instructor.

Teaching Assistant

Junyu Zhang

junyu.zhang.1@stonybrook.edu

Course website: <https://blackboard.stonybrook.edu/>

Recitations via *zoom*: Section 5: Mondays 7:50 pm to 8:45 pm,

Section 6: Wednesdays 7:50 pm to 8:45 pm.

Zoom Link: click [here](#) to access the *zoom* recitations.

COURSE SYLLABUS

Course Description: This class will introduce you to statistical techniques used by applied econometricians to analyze real world phenomena. In this class, theory will be motivated by discussing applications. First, we will review some core ideas in probability theory that are necessary to understand regression analysis and econometrics. Second, we will cover regression analysis and OLS estimation, hypothesis testing, and extensions to the linear regression model. Finally, we will discuss topics in model selection and evaluation. If time permits, we will cover instrumental variables regression and experiments.

Prerequisites: C or higher in ECO 320 or AMS 310, C or higher in ECO 108.

Recommended Textbook: *Introduction to Econometrics* by Stock, James H. and Watson Mark W., Addison Wesley, 2011, 3rd Edition, ISBN-13: 978-0-13800900-7. Previous and newer editions of the textbooks can also be used. Note that the textbook is only recommended and not required. Lecture notes and additional readings will be posted and/or recommended in the course website.

Statement about Course Delivery/Modality

This is an asynchronous/synchronous online course delivered in the Blackboard learning management system (LMS). It combines asynchronous activities (clips and homework assignments) with synchronous activities (online meetings, exams, and office hours). Students must be mindful of all course expectations, deliverables, and important dates. All assignments and course interactions will utilize internet technologies. See the “Technical Requirements” section for more information.

Preferred Method of Contact with the Instructor

My preferred method of contact is via email. Please be sure to include your full name and “Econometrics Spring 21” in the subject line when you send me an email. I strive to respond to your emails as soon as possible, but kindly allow me between 24 and 48 hours for a response. Please utilize your Stony Brook University email when getting in touch with me as that it is the institution’s preferred contact method.

Weekly Synchronous Schedule

Day	Schedule
Monday	8:30 am – 9:50 am Online Meeting (zoom link here) 7:50 pm – 8:45 pm Recitation Section 5 (zoom link here)
Tuesday	8:00 pm – 10:00 pm Office Hours (zoom link here)
Wednesday	8:30 am – 9:50 am Online Meeting (zoom link here) 7:50 pm – 8:45 pm Recitation Section 6 (zoom link here)

Online Meetings will serve three different purposes:

1. To discuss problems and exercises.
2. To discuss theoretical topics that are not in the clips.
3. To offer additional office hours for students’ questions.

Recordings of online meetings will NOT be available. To benefit from these meetings, you must connect. I will communicate the plan and content of each meeting in advance. Attendance in these online meetings is not mandatory and will not be recorded (except during exams).

Note that exams will take place **synchronously** during our Wednesday morning *Online Meetings*. Exam I will take place on February 24th, Exam 2 April 7th, and Exam 3 May 5th. The Final Exam will take place synchronically as scheduled by the University on Tuesday, May 11th from 8:00 am to 10:45 am.

Recitations sections will start on the week of February 8th. For the full recitation schedule, please check the course outline below. Attendance in recitations is not mandatory and will not be recorded (except during exams).

Grading Policy

Your grade in this class will be based on your performance in four homework assignments and three exams. Each assignment will be worth 10% of your grade, and each exam will be worth 20% of your grade. Please, familiarize yourself with due dates for assignments and exam dates by checking the section on “important dates” below.

Letter Grade Distribution

≥ 93.00	A	73.00 - 76.99	C
90.00 - 92.99	A-	70.00 - 72.99	C-
87.00 - 89.99	B+	67.00 - 69.99	D+
83.00 - 86.99	B	60.00 - 66.99	D
80.00 - 82.99	B-	≤ 59.99	F
77.00 - 79.99	C+		

Homework Assignments (10% each assignment): You will have 4 graded homework assignments. Each of these assignments will be worth 10% of your grade. You will work on these assignments offline. You can type your answers and submit your file through blackboard, or you can handwrite your answers, take pictures, convert them into a single file (PDF format), and submit them through blackboard. Please, familiarize yourself with due dates by checking the section on “important dates” below. Late assignments will receive a penalty grade. Assignments submitted after solutions are posted or discussed will not be accepted.

Exams (20% each exam): There will be 4 exams in this course: three *in-class* exams and an optional final. ONLY your best three exam grades will count towards your grade (your lowest exam grade will be dropped). Each one of your best three exam scores will account for 20% of your grade. The first three in-class exams (exams I, II, and III) are NOT cumulative. The optional final exam IS cumulative and will include everything covered in class. After grading your third exam, I will post provisional final grades, so you can decide whether to take the optional final for the chance to improve your grade. Since your lowest exam grade is dropped, there will be NO makeup exams.

Specific instructions regarding exam format and rules will be available on Blackboard.

Important Dates

Important Dates: all times are in Eastern Time (ET)

Friday, February 19 th , 11:30 pm.	Assignment 1 is due.
Wednesday, February 24 th , 8:30 am – 9:50 am.	Exam 1 on <i>blackboard</i> and <i>zoom</i> .
Friday, March 19 th , 11:30 pm.	Assignment 2 is due.
Friday, April 2 nd , 11:30 pm.	Assignment 3 is due.
Wednesday, April 7 th , 8:30 am – 9:50 am.	Exam 2 on <i>blackboard</i> and <i>zoom</i> .
Friday, April 30 th , 11:30 pm.	Assignment 4 is due.
Wednesday, May 5 th , 8:30 am – 9:50 am.	Exam 3 on <i>blackboard</i> and <i>zoom</i> .
Tuesday, May 18 th , 8:00 am–10:45 am	Optional Final Exam on <i>blackboard</i> and <i>zoom</i> .

Course Outline

Module	Week	Topic	Reading	Recitation
I	1	Introduction. Review of probability.	SW 1 & 2	No Recitation
	2	Review of probability.	SW 2	Recitation 1
	3	Review of statistics. Assignment 1 is due.	SW 3	Recitation 2
	4	Review of statistics. Exam I.	SW 3	No Recitation
II	5	Linear regression with a single regressor (SLRM).	SW 4	Recitation 3
	6	Linear regression with a single regressor (SLRM). Hypothesis tests in the SLRM.	SW 4 & 5	Recitation 4
	7	Hypothesis tests in the SLRM. Assignment 2 is due.	SW 5	Recitation 5
	8	Linear regression with multiple regressors (MLRM)	SW 6	Recitation 6
	9	Linear regression with multiple regressors (MLRM). Hypothesis tests in the MLRM. Assignment 3 is due.	SW 6 & 7	Recitation 7
	10	Hypothesis tests in the MLRM. Exam II.	SW 7	No Recitation
III	11	Topics in non-linear regression	SW 8	Recitation 8
	12	Evaluation of the MLRM.	SW 9	Recitation 9
	13	Experiments and quasi-experiments. Assignment 4 is due.	SW 13	Recitation 10
	14	Experiments and quasi-experiments. Exam III.	SW 13	No Recitation
	15	Optional Final Exam.		

SW refers to the recommended textbook.

Technical Requirements: For this course you must have access to the Internet and an active Stony Brook University e-mail account. You are responsible for having a reliable computer and internet connection throughout the course. You will need to have access to, and be able to use, the following software

- A web browser (for instance, Google Chrome, Mozilla Firefox, Internet Explorer, or Safari).
- A .pdf file reader.
- A text editor.
- An audio/video file player.

This course uses [Blackboard](#) for the facilitation of communications between faculty and students, submission of assignments, and posting of grades.

Technical Help: be sure to visit the following links if you face technical difficulties.

Campus Network or Blackboard Outage: when access to Blackboard is not available for an extended period of time (greater than one entire evening –6pm till 11pm) you can reasonably expect that the deadline for assignments will be extended 24 hours.

For technical support visit the Stony Brook University [Division of Information Technology website](#).

For assistance after regular hours or over the weekend, please contact the [Open SUNY Technical Support](#).

Frequently asked questions about the Bb LMS along with tutorials are available [here](#).

The [Student Summer Tech Guide](#), written by SBU students, is great website for general advice and information.

Academic Support: the following links provide you useful resources to participate and submit papers in this class.

Student Support for Online Learning: [check here](#).

Library Instruction Website: [check here](#).

SBU Library Research Guides and Tutorials: [check here](#).

Netiquette Guidelines: The following are guidelines for participation in the Discussion Forums:

- Remember that the absence of face-to-face communication it is easy to misunderstand what is being said;
- Carefully review and read materials that you receive electronically to ensure that you fully understand the message;
- Be sure to carefully re-read and understand what you will be sending in order to ensure that you are not misunderstood by anyone;
- Avoid cluttering your messages with excessive emphasis (stars, arrows, exclamations);
- If you are responding to a message, either include the relevant part of the original message in your message, or make sure you refer to the original content so as to avoid confusion;
- Be specific and clear, especially when asking questions;
- If your messages can be typed in UPPER and lower case, please use the two appropriately instead of all UPPERCASE characters. This gives the appearance of shouting and makes the message less readable;
- Remember that not all readers have English as their native language, so make allowance for possible misunderstandings and unintended discourtesies.

Student Accessibility Support Center: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the [Student Accessibility Support Center](#), 128 ECC Building, (631) 632-6748, or at sasc@stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the Student Accessibility Support Center. For procedures and information go to the following website <https://ehs.stonybrook.edu//programs/fire-safety/emergency-evacuation/evacuation-guide-disabilities> and search Fire Safety and Evacuation and Disabilities.

Academic Integrity: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, and Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the [academic judiciary website](#).

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the [Undergraduate Bulletin](#), the [Undergraduate Class Schedule](#), and the [Faculty-Employee Handbook](#).

Valid Excuses: During the course many possible events may occur that would result in your inability to complete your assignments or perform at a minimally acceptable level during an examination. Illness or injury, family emergencies, certain University-approved curricular and extra-curricular activities, and religious holidays can be legitimate reasons to miss to be excused from a scheduled examination. If you have a valid excuse, please discuss it with your instructor as soon as possible.

Course Materials and Copyright Statement: Course material accessed from Blackboard, SB Connect, SB Capture or a Stony Brook Course website is for the exclusive use of students who are currently enrolled in the course. Content from these systems cannot be reused or distributed without written permission of the instructor and/or the copyright holder. Duplication of materials protected by copyright, without permission of the copyright holder is a violation of the Federal copyright law, as well as a violation of Stony Brook's Academic Integrity and [Student Conduct Code](#).

Disclaimer: Any change in the syllabus will be announced by email and in the *Announcements* section in the course website. You are expected to check your email and to log-in into the course website regularly.