ECON 3161 ECONOMETRIC ANALYSIS GT Fall 2026

Classroom: TBD Day/Time: TBD
Professor: TBD Email: dpalubeski3@gatech.edu
TA: TBD Email: TBD

Course Description:

This course introduces students to cross-section regression models used in empirical economic analysis. The course emphasizes the applications of econometrics in different fields of research. We will adopt an active learning mode where students will review material at home and will spend more time on problem solving activities in class. Students will model simple applications using **STATA** statistical software on a variety of datasets. The course is quantitatively rigorous and requires knowledge of probability and statistics.

Goals and Learning Objectives:

The goal of the course is to introduce regression analysis and its applications in different fields in economics. Specifically, by the end of the course, students will be able to test assumptions, estimate cross-section models, interpret results and conduct robustness tests. An important objective of the course is to help students independently undertake research using the econometric techniques taught in the course.

Course Material:

Required Book: Introductory Econometrics: A Modern Approach, by J. Wooldridge, Cengage
STATA access via IAC-Vlab: https://mycloud.gatech.edu.
The course material will be posted on Canvas.

Grading Structure:

Assignments	Dates	Time	Grade Weight
Attendance & Participation	Entire semester	In-class	5%
Homework	Dates announced on Canvas	Online	25%
Midterm Exam	Thursday, October 09, 2025	In-class	20%
Project Presentations	Oct 28-Nov. 20, 2025	In-class	25%
Final Exam*	Tuesday, Dec. 09, 2025	2.40 pm to 4.30 pm	25%

* Dates are tentative and are subject to change during the semester; Note the time and date for the final exam; Due dates for different stages of research project will be given separately.

Grading Scale:

Your course grade will be assigned as a letter grade according to the following scale:

A: 90-100% B: 75-89% C: 60-74% D: 50-59% F: 0-49%

Course Content:

Chp. 1. The Nature of Econometrics and Economic Data

Chp. 2. The Simple Regression Model

Chp. 3. Multiple Regression Analysis: Estimation

Chp. 4. Multiple Regression Analysis: Inference

Chp. 6. Multiple Regression Analysis: Further Issues

Chp. 7. Multiple Regression Analysis with Qualitative Information: Binary (or Dummy) Variables

Chp. 8. Heteroskedasticity

Relevant parts of Appendix: A, B, and C

Course Calendar:

Week	Date	Chapters	Topics
1	19-21 August	Chapter 1	Introduction, Appendix A
2	26-28 August	Chapter 2	STATA, Appendix B
3	02-04 September	Chapter 2	OLS estimator, Properties of Estimates
4	09-11 September	Chapter 2	Expected Values, Variance, Errors
5	16-18 September	Chapter 3	General model, STATA
6	23-25 September	Chapter 3	Omitted Variable Bias
7	30 Spt.-02 Oct.	Chapters 3	Multi-collinearity, STATA
8	07-09 October	Break/Midterm	**Fall break**, **Midterm Exam**
9	14-16 October	Chapter 4	Introduction t-Test
10	21-23 October	Chapter 4	p-values, Confidence Interval, F-Test
11	28-30 October	Chapter 6	Data Scaling, Functional Form
12	04-06 November	Chapter 7	Dummy Variables, STATA
13	11-13 November	Chapter 7	Dummy Variables extensions
14	18-20 November	Chapter 8	Heteroskedasticity, STATA
15	25-27 November	Break	**Thanksgiving Holiday**
16	02 December	Revision	**Final Instructional Day**

Note that this is a tentative course calendar. It will be revised as needed during the semester.

Important Guidelines

- ***Attendance and Participation***

Students should maintain regular attendance in person. Students who are absent because of participation in approved Institute activities (e.g. field trips, athletic events) will be permitted to make up the work missed during their absences. Students may need to miss classes due to personal emergencies. The Office of Dean of Students can assist students with documented emergencies by contacting professors on behalf of the student. https://studentlife.gatech.edu/about/dean-students

- ***Homework***

The homework due date will be announced both in class and on Canvas. Homework can be either typed or handwritten and scanned but must be submitted online via Canvas. Hard copy or emailed copy will not be accepted. To receive full credit, homework must be well written and complete. Any homework that is not legible or incomplete will receive partial or no credit. Homework must be turned in on/before the due date and time. Late homework will only receive partial credits (50% of grade) unless for an excused absence. Once homework solutions are posted on Canvas, late homework will not be accepted.

- ***Academic Integrity***

Students may collaborate on homework. Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Please see Student Faculty Expectations at https://catalog.gatech.edu/rules/21/ and Georgia Tech's Academic Honor Code, at http://www.catalog.gatech.edu/policies/honor-code/. Any student suspected of cheating or plagiarizing the research project will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

- ***Accommodations for Individuals with Disabilities***

A student, who needs special accommodations, should contact the Office of Disability Services (ODS) at (404) 894-2563 or http://disabilityservices.gatech.edu/, as soon as possible. If you have been approved by ODS for an accommodation, I will work closely with you to understand your needs and make effort to investigate whether or not requested accommodations are possible for this course.

- ***Digital Learning Days***

Students should familiarize themselves with Georgia Tech's Digital Learning Days Policy. This policy sets forth requirements, procedures, and responsibilities related to the scheduling of digital instruction and/or make-up classes due to the modification of campus operations, closing of campus, or the necessary closing of instructional spaces for any reason. https://s1.policylibrary.gatech.edu/academic-affairs/digital-learning-days-modified-campus-operations

- ***Recordings of Class Sessions and Required Permissions***

Classes may not be recorded by students without the express consent of the instructor unless it is pursuant to accommodation granted by the Office of Disability services. Class recordings, lectures, presentations, and other materials posted on Canvas are for the sole purpose of educating the students currently enrolled in the course. Students may not take photos of the instructor or the whiteboard on their smart phones. Students may not record or share the materials or recordings, including screen capturing or automated bots, unless the instructor gives permission.