

Econ 6140 Syllabus

Econometrics I Fall 2026

Class Location: Van Leer C240

Monday & Wednesday 2:00-3:15PM

Instructor Information

Instructor
Daniel Dench

Email
dench@gatech.edu

Office Hours & Location
Monday 11:15-1:15pm in-person at
Old CE 206

Office Hours

I am available in-person on the second floor of Old CE during my office hours. Please come by to discuss anything related to class or economics in general.

Description of teaching format

Lectures will be held in-person on campus in the above room. Attendance is required on both Mondays and Wednesday. Mondays we will go over the required questions from your reading assignments. On Wednesdays **you** will bring in questions that I can answer related to the lecture or programming. If you are ill for any reason (e.g., migraine, flu, Covid19), you can request lecture notes from a fellow classmate. In addition, I will give 3 free exceptions on absences throughout the semester for participation grades, which can be further extended if you send me a doctor or other official note. These should be delivered no later than 1 week after absence.

Course Description

This course will provide students with the foundational knowledge for statistics, data analysis and applied econometrics. It begins with a quick overview of probability and statistics. The remainder of the course focuses on regression analysis. Topics covered include bivariate and multivariate regression, and the assumptions of ordinary least squares (OLS).

Course Objectives

Students will learn how to test and address common problems with OLS and learn alternative econometric models for data which violates the assumptions underlying OLS. In addition, students will learn how to clean data, run regressions, test hypothesis, visualize data, and present results using R or Python.

Prerequisites

Students are assumed to have taken a basic statistics course as an undergraduate.

Required Course Materials

Required Textbooks:

1. Introduction to Econometrics, 3rd Edition by Stock and Watson
2. Mastering Metrics, 1st edition by Angrist & Pischke

Grading Criteria

Each week you will have one to two assignments to turn in. The first will be answers to a series of questions related to the reading for each class which is **due before the beginning of each Monday class** that will be graded as pass/fail. The second will be a programming assignment that tests your empirical ability to clean, analyze, present and/or simulate data based on what you learned in the previous week and will be **due to me after class on Wednesday of each applicable week** and graded from 1 to 10. Attendance and participation grades will be based on accurate answers to questions on days you are present in class based on the readings required for the lecture. A short quiz will be given in canvas to test your knowledge of probability and statistics and be **due before class on 9/22**. Each exam will involve both numerical problems and comprehension problems to test how well you know the material. Each exam should be completed independently.

10% Participation

5% Probability and Statistics Quiz

30% Homework Assignments

30% Mid-term Exam

30% Final Exam

Grade distribution

85-100% A

70-84% B

55-69% C

40-54% D

<40% F

There will be no curve and every grade is possible from A to F.

Academic Integrity

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. For information on Georgia Tech's Academic Honor Code, please visit <http://www.catalog.gatech.edu/policies/honor-code/> or <http://www.catalog.gatech.edu/rules/18/>.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services at (404)894-2563 or <http://disabilityservices.gatech.edu/>, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See <http://www.catalog.gatech.edu/rules/22/> for an articulation of some basic expectation that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Course Outline

(See Schedule on Canvas)