Econometric Methods
ECON2228.0

Schedule: Tuesday–Thursday, 12am - 1:15pm
Location: Campion 231
Instructor: Alberto Cappello
Email: cappelae@bc.edu
Office: Maloney Hall, Office 333A
Office Hours: Thursdays 1:30pm–2:30pm, or by appointment
TA: Mustafa Runyun runyun@bc.edu
TA Office Hour:

Course Description

This introductory econometrics course equips students with essential tools for understanding and conducting empirical research. It focuses on fundamental econometric theory and practical data analysis. Building on concepts from statistics, the course emphasizes distinguishing causal relationships from simple correlations. Students will learn how to design basic econometric models, estimate their parameters, and interpret the results.

Prerequisites

Calculus and statistics.

Textbook

Introduction to Econometrics, 3rd Edition, by James H. Stock and Mark W. Watson (Addison-Wesley, 2011).

Software

We will be using STATA for the computer work.

Grading

The course grade is based on the following components:

- **Midterm Exam:** 30% (
- **Final Exam:** 30%
- **Problem Sets:** 30%
- **Lab:** 10%

Deadlines and late submission policies

All deadlines are strictly enforced. Late work is not accepted and no credit will be earned on late work unless the student has arranged an extension ahead of time with me (and that is quite possible, I am flexible with everyone's challenging circumstance and time constraints), with rare exceptions based on individual circumstances (e.g. inability to communicate with me ahead of time because of an emergency).

Accomodation and Accessibility

Boston College is committed to providing accommodations to students, faculty, staff and visitors with disabilities. Specific documentation from the appropriate office is required for students seeking accommodation in this course. Advanced notice and formal registration with the appropriate office is required to facilitate this process. There are two separate offices at BC that coordinate services for students with disabilities

- The Connors Family Learning Center (CFLC) coordinates services for students with LD and ADHD
- The Disabilities Services Office (DSO) coordinates services for all other disabilities.

Find out more about BC's commitment to accessibility here

Academic Integrity

Boston College values the academic integrity of its students and faculty. It is your responsibility to familiarize yourself with the university's policy on academic integrity. If you have any questions, always consult your professor. Violations of academic integrity will be reported to your class dean and judged by the academic integrity committee in your school. If you are found responsible for violating the policy, penalties may include a failing grade as well as possible probation, suspension, or expulsion, depending on the seriousness and circumstances of the violation. See this link for a full discussion of the university's policies and procedures regarding academic integrity.

Tentative Schedule

Schedule

Date	Reading	Main Topic	Things Due
Jan 14	Ch. 1-3	Introduction, Prob and Stat Review	Pset 1
Jan 16	Ch. 4-5	Least Squares Regression	—
Jan 21	Ch. 4-5	OLS Derivation	—
Jan 23	Ch. 4-5	Statistical Properties of OLS Estimators	—
Jan 28	Ch. 6, Sec. 4.1–4.2	Hypothesis Testing	—
Jan 30	Ch. 6, Sec. 4.3–4.5	Omitted Variables	—
Feb 4	Ch. 6,	Heteroskedasticity and Autocorrelation	Pset 2
Feb 6	Ch. 6, Sec. 6.1, 6.2	Multicollinearity	—
Feb 11	Ch. 6, Sec. 6.3, 6.4	Simultaneity	—
Feb 13	Ch. 6, Sec. 6.5–6.7	Model Misspecification	—
Feb 18	Ch. 5, Sec. 5.3; Ch. 8, Sec. 8.1–8.4	Nonlinearities, Dummy Variables, Interaction Terms	—
Feb 20	Ch. 12, Sec. 12.1–12.2	Instrumental Variable	—
Feb 25	Ch. 12, Sec. 12.1–12.2	Two Stage Least of Square	Pset 3
Feb 27	Ch. 7, Sec. 7.5–7.7	Logit and Probit	—
Mar 11	Ch. 13, Sec. 13.1–13.2	Logit and Probit	—
Mar 13	—	Review for Midterm	—
Mar 18	—	**Midterm Exam**	—
Mar 20	Ch. 11	Poisson Regression	Pset 4
Mar 25	Ch. 19, Sec. 14.2	Generalized Method of Moments	—
Mar 27	Ch. 19	Generalized Method of Moments	—
Apr 1	Ch. 10	Panel Data, FE and RE	—
Apr 3	Ch. 10	Panel Data, FE and RE	Pset 5
Apr 8	Ch. 13	Treatment Effects and DID	—
Apr 10	Ch. 13	Treatment Effects and DID	—
Apr 15	Ch. 13	Regression Discontinuity	—
Apr 24	Ch. 13, Sec. 13.4	Regression Discontinuity	Pset 6
Apr 29	Ch. 13, Sec. 13.5–13.6	Review for Final	—
May 9	—	**Final Exam**	—