This course introduces students to econometrics, a subfield of economics concerned with methods for measuring economic quantities and testing economic theory. In particular, the course focuses on estimation and inference within the framework of linear regression analysis.

Prerequisites: EC151 or EC155, MT100 or MT102, or equivalent.


Grading:
- Problem sets (20%).
- Midterm (35%): Tuesday, October 25, 2011, 1:30 – 2:45pm, Campion 303.
- Final (45%): Thursday, December 15, 2011, 9-11am, Campion 303.

Part of the problem sets will include computational exercises through which students will gain practical experience and familiarity with statistical software such as STATA. Xiaoping Chen and Jin-Young Choi will each hold three optional tutorial sections that meet once a week to introduce students to STATA and provide assistance with the problem sets. You are encouraged to attend one of the six tutorial sections listed above.
Please check your BC email for announcements. There will not be rescheduled or make-up exams (except in severe emergencies which must be thoroughly convincing and properly documented). Solutions to problem sets will not be accepted after their due dates. The lowest grade you receive on one of the problem sets (which could be zero if a student does not submit a solution on time) will be dropped when evaluating your overall grade on problem sets. You may pick up your graded problem set from Tao Yang during his office hours. You may use calculators during exams. You must demonstrate your reasoning and show all calculation to receive full grade.

**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: www.bc.edu/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.

**Course Outline:**

1– Introduction to econometrics and economic data (chapter 1)

2– Review of probability (Appendix B)

3– Review of statistics (Appendix C)

4– Simple regression analysis (chapter 2)

5– Multiple regression analysis: estimation (chapter 3)

6– Multiple regression analysis: inference (chapter 4)

7– Multiple regression analysis: OLS asymptotics (chapter 5)

8– Multiple regression analysis: further issues (chapter 6)

9– Multiple regression analysis: binary variables (chapter 7)

10– Heteroskedasticity (chapter 8)

11– Specification and data issues (chapter 9)

If time permits:
12– Regression analysis with time series data (chapters 10-11)

13– Serial correlation and heteroskedasticity in time series regression (chapter 12)

14– Instrumental variables estimation and two stage least squares (chapter 15)