BOSTON COLLEGE

Department of Economics

EC 823: **Applied Econometrics**, Spring 2014
Course homepage: `http://fmwww.bc.edu/EC-C/S2014/823/`
Prof. Christopher Baum (`http://ideas.repec.org/e/pba1.html`)
Maloney Hall 388, email `baum@bc.edu` (7x24)

This course presents a number of econometric estimation techniques relevant for applied research in economics and finance and addresses the computational issues related to their implementation. It has a prerequisite of EC771 or EC772 (first-year PhD econometrics).

Required text/software: AC Cameron, PK Trivedi (CT), *Microeconometrics using Stata*, (Stata Press, revised ed., 2010) and additional readings to be posted on the course home page. Access to the *Stata* statistical package. Stata is available in the Economics computer lab and is accessible by all BC community members on `http://apps.bc.edu`.

Recommended texts:
C.F. Baum, *An Introduction to Modern Econometrics Using Stata*, (`http://www.stata-press.com/books/modern-econometrics-stata/`), Stata Press, 2006; *An Introduction to Stata Programming*, (`http://www.stata-press.com/books/introduction-stata-programming/`), Stata Press, 2009.

Course requirements:
Empirical research project (75%) and in-class seminar presentation (25%). Research projects are due at the time of the semester final examinations with no exceptions. Detailed information on the research project will be provided.

To give equal preparation time to those interested in both cross-section/panel research topics and time series research topics, the coverage of time series topics will be interspersed with cross section/panel topics.

Class will not meet January 21 (Martin Luther King, Jr. Day), February 26, March 3, 5 (spring vacation), April 7, April 21 (Patriots' Day).

Tentative topics to be discussed

Meetings	Dates	Material
1–9	Jan 13–Feb 12	*Cross-Section/Panel I* Simulation for regression and testing Instrumental variables techniques Quantile regression Dynamic panel data models General linear models Mixed linear models
10–19	Feb 17–Mar 31	*Time Series* ARIMA and ARFIMA models Univariate and multivariate ARCH models Reduced-form and structural VARs, VECMs State-space models Dynamic factor models Unobserved components models
20–24	Apr 2–23	*Cross-Section/Panel II* Propensity score matching, regression discontinuity Binary outcome models Tobit and selection models Count data models Structural equation models
25–26	April 28–30	*Project Presentations*