Boston College, Department of Economics  
ECON2228 Econometric Methods, Fall 2018

Class days: Mon, Wed  
Class hours: 3pm-4:15pm (Section 04), 4:30pm-5:45pm (Section 05)  
Class location: O’Neill Library 253

Instructor: Anatoly Arlashin, anatoly.arlashin@bc.edu  
Office: Maloney Hall 339  
Office Hours: Mon, Wed 6pm – 7pm

TA: Haydar Evren  
TA Office: Maloney Hall 391E  
TA Office Hours: TBA

Course Overview

This course introduces students to econometrics as 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.

With enough data, and careful scientific analysis, one can tell persuasive stories explaining human behavior and more convincingly encourage particular behavior changes (courses of action).

In this course we will focus mostly on applied side of econometrics with the emphasis on understanding the core feature of regression analysis and correct interpretation of estimation results. Theoretical issues such as basics of probability and statistics, theory of estimation procedures and methods, and theoretical econometric results, while present in the course, will require only general understanding without the need to be able to prove and/or derive.

Prerequisites

Our course requires the knowledge of basic concepts of probability and statistics, as described in ECON1151 Statistics or similar course. A condensed description of key terms and concepts that students are required to know can be found in textbook Appendices A, B and C.

Literature

The main textbook for this course will be Jeffrey Wooldridge’s “Introductory Econometrics: A Modern Approach”, 6th edition (2015). Previous editions of the same textbook have only minor differences and can be used as substitutes.

Additional readings that may be helpful are:

1. [Introductory] Econometric Analysis of Cross Section and Panel Data, by Jeffrey M Wooldridge
2. [Intermediate] Mastering ‘Metrics: The Path from Cause to Effect, by Joshua D. Angrist and Jorn-Steffen Pischke
**MindTap Online Software**

Students will also need to register with Cengage’s MindTap online platform. The details on registration will be provided at the start of the semester. You will be using MindTap primarily for your home assignments, but it also has a selection of other useful learning tools.

**Canvas**

Canvas is the Learning Management System (LMS) at Boston College, designed to help faculty and students share ideas, collaborate on assignments, discuss course readings and materials, submit assignments, and much more - all online. As a Boston College student, you should familiarize yourself with this important tool. For more information and training resources for using Canvas, click [here](#).

All class materials will be available online via Canvas.

**Econometrics Lab (Discussion Group)**

All students are required to attend a co-requisite course ECON227 Discussion Group, which typically meets once a week. This course, more commonly called Stata Lab, introduces students to applied econometric analysis using Stata.

The Labs will have a separate TA, separate homework and other assignments, separate schedule and deadlines. The resulting grade in the Lab will be included in your overall grade for this course with a 20% weight.

**Grading**

Your course grade will be determined using the following grading scheme:

- Stats Review  5%
- Homework      15%
- Stata Lab     20%
- Midterm 1     15%
- Midterm 2     15%
- Final Exam    30%

There is no letter grades or curving per each individual part of the grade. The overall course score is calculated as a weighted sum of all components, and then translated from 0-100 scale into a letter grade using a curved distribution.

All students can access final grades through Agora after the grading deadline each semester. Transcripts are available through the [Office of Student Services](#).

**Deadlines, Late Work and Make Up Policy**

All deadlines are strictly enforced.

Late submission of home assignments is only allowed due to a valid excuse in the form of a medical condition as shown by the appropriate documentation.

There are no make-up exams in this course. If you miss either of the two midterm exams and you have a valid excuse, then the weight of the missed exam(s) will be added to the weight of the final exam.

**Course outline and schedule**

- Part I: Basic Regression Analysis
  - Chapter 1: The Nature of the Data
  - Chapter 2: Simple Linear Regression
Chapter 3: Multiple Linear Regression — Estimation
Chapter 4: Multiple Linear Regression — Inference

• Part II: Intermediate regression analysis
  o Chapter 5: OLS Asymptotics
  o Chapter 6: Further Issues in Multiple Linear Regression
  o Chapter 7: Dummy Variables
  o Chapter 8: Heteroscedasticity

• Part III: Advanced Regression Analysis
  o Chapter 9: Specification and Data Issues
  o Chapter 15: Instrumental Variables
  o Chapter 13: Simple Panel Data Methods
  o Chapter 14: Advanced Panel Data Methods

Below is the expected schedule for classes and topics covered throughout the semester. Note that chapters covered on each particular day of the semester will be subject to adjustment based on the overall pace of the class, as well as any class cancellations due to weather or other emergencies.

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<thead>
<tr>
<th>Date / Week</th>
<th>Topic</th>
<th>Date / Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Aug 27 / W1</td>
<td>No class</td>
<td>Oct 24 / W8</td>
<td>Chapter 7</td>
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<tr>
<td>Aug 29 / W1</td>
<td>Class Introduction</td>
<td>Oct 29 / W9</td>
<td>Chapter 7</td>
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<tr>
<td>Sep 3 / W2</td>
<td>No class — Labor Day</td>
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<td>Chapter 8</td>
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<td>Sep 5 / W2</td>
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<td>Sep 12 / W3</td>
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<td>Chapter 9</td>
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<td>Sep 17 / W4</td>
<td>Chapter 3</td>
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<td>Sep 19 / W4</td>
<td>Chapter 3</td>
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<td>Chapter 9</td>
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<td>Sep 24 / W5</td>
<td>Chapter 4</td>
<td>Nov 21 / W12</td>
<td>No class – Thanksgiving</td>
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<td>Sep 26 / W5</td>
<td>Chapter 4</td>
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<td>Oct 1 / W6</td>
<td>Chapter 4</td>
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<td>Oct 3 / W6</td>
<td>Chapter 5</td>
<td>Dec 3 / W15</td>
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<td>Oct 8 / W7</td>
<td>No class — Fall Break</td>
<td>Dec 5 / W15</td>
<td>Chapter 13</td>
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<td>Oct 10 / W7</td>
<td>Midterm 1</td>
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<td>Oct 15 / W8</td>
<td>Chapter 6</td>
<td>Dec 12 / W16</td>
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<tr>
<td>Oct 17 / W8</td>
<td>Chapter 6</td>
<td>Dec 17</td>
<td>Final Exam, Section 05</td>
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<tr>
<td>Oct 22 / W8</td>
<td>Chapter 6</td>
<td>Dec 18</td>
<td>Final exam, Section 04</td>
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Accommodation 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 at www.bc.edu/sites/accessibility.
**Academic Integrity**

Cheating in class on any assignment will result in

1. an automatic failure in the course and
2. reporting the incident to the College of Art and Sciences as requested by the university.

See [this link](#) for a full discussion of the university’s policies and procedures regarding academic integrity.