ECONOMICS 382          Spring 2019    Tuesday/Thursday 9:15-10:30 + Lab on Tuesday

*Instructor Information*
Instructor:  David Gabel
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Office Location and Hours: Powdermaker 306 D.   Tuesday: 2:00-2:45 PM; & 5:30 - 6:30 PM.
Wednesday: 5:30 – 6:15 PM
and by appointment.

*Course Description:*
We will concentrate on simple and multiple regression techniques.   This will involve analyzing
data sets using ordinary least squares, inference, and the use of statistical software to estimate
economic models.

*Prerequisites*
Economics 249 (statistics) and Math 131 (calculus) are prerequisites for this course.

*Course Overview*
This course is the continuation of ECO 249.  The emphasis is on practical knowledge of
regression techniques with a minimum amount of time spent on theory and derivations.  In some
instances, it will be illuminating for me to explicitly derive certain expressions, but, in general,
such derivations will be reserved for discussions with students in office hours, etc.  Upon
completion of the course you will have a working knowledge of basic, single equation,
regression techniques, and the ability to interpret regression results from a computer printout.

*Course Goals and Objectives*

The goals and objectives of the class are for you to
   1) Learn how to define and estimate an economic model;
   2) Interpret your estimation results by identifying what are statistically and economically
      significant variables; and
   3) Be able to critically evaluate economic models.

You will develop these skills by studying the material in the textbook, discussing articles,
attending class, and writing a paper.

*Description and Requirements*
This course will provide you with the background in economic statistics sufficient to read basic
applied work in the economics literature.  This is a quantitative course and therefore it is a very
good idea to keep up with the current readings and homework assignments.  The vast majority of
the material covered in the examinations will be directly related to the assignments and class
lectures.  The course outline (below) indicates the topics to be covered, though it may have to be
modified as the semester progresses.

There will be two midterm examinations and a final examination. The midterms are tentatively scheduled for the fifth and ninth week of classes, (the dates will be announced in class as the schedule solidifies) and will comprise 30% of your final grade. The final examination will be worth 20% of the final grade. Clicker responses will be 15% of your grade. Homework assignments, conducted through Cengage's MindTap, make up 15% of the final grade.[1] A paper will account for the remaining 20% of your final grade.

In summary, your score will be constructed using the following weights:

| Activity | Weight |
|---|---|
| Two mid-term exams | 30% |
| Final exam | 20% |
| In-class Clicker questions | 15% |
| MindTap Homework | 15% |
| Paper | 20% |

A final letter grade will be assigned based on a number grade calculated from your scores on the components identified in the prior table.

Exams can only be missed because of serious illness or other extreme circumstances. In the event that you cannot make an exam, you should contact me *before* the exam. Makeup exams will not be given under any circumstances. If you must miss an exam, I will reweight your other exam grades to make up for the missed test. You may not complete the course without taking the final exam.

Neither will there be any extra credit problems.

*Text*: Jeffrey M. Wooldridge, Introductory Econometrics, 6th edition.

The book is available through the bookstore. The bookstore will sell the loose-leaf custom textbook, bundled with MindTap for approximately $175. MindTap will be used for a substantial portion of the homework assignments.

You also have the options to purchase the e-text directly from Cengage at
https://www.cengage.com/dashboard/#/course-confirmation/MTPPGJ5NQ91G/initial-course-confirmation

When you click on this link, you will see a page that has a grey banner and the words "with David Gabel".


·      MindTap with loose-leaf version of the textbook is $113.00
·      MindTap with eText is $95.00. I'm impressed with the quality of the eText book.
·      Cengage unlimited. For $119 you would be able to access all Cengage books used at Queens College for no extra cost.

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[1] I will drop, without penalty, your two lowest homework scores.

The file "How to access your MindTap course.pdf", available on Blackboard, under Information, also explains how you gain access to MindTap.

There is a fourteen-day complimentary access period for students waiting on financial aid, military vouchers, etc. During the MindTap registration process, on the purchasing options page, there is a link for this option.
*Software*: Stata, a statistical program. The software is not part of the textbook/MindTap bundle.

You should acquire a six-month license for Stata/IC. It sells for $45.
https://www.stata.com/order/new/edu/gradplans/student-pricing/

The Stata software is also available, for free, at most of QC's computer labs.

*Lab*
We will use the lab to cover problems from the back of each chapter. I tentatively plan on covering the following problems. I will likely collect and grade one or more of these homework assignments.

- Chap. II *The Simple Regression Model*
Solve chapter problems #6, #11, C5, and C6

- Chap. III: *Multiple Regression Analysis: Estimation*
Solve chapter problems #9, and C2

- Chap. IV: *Multiple Regression Analysis: Inference*
Solve chapter problems #3, #4, #10, and #11

- Chap. VI: *Multiple Regression Analysis: Further Issues*
Solve chapter problems #4, C2, and C5

- Chap. VII: *Multiple Regression Analysis: Dummy Variables*
Solve chapter problems #3, C4, and C8

- Chap. VIII: *Heteroscedasticity*
Solve chapter problems C8, and C13

*A note about the textbook*
The textbook is one of the best on the market. I will follow the text closely. However, I may lecture on some things that are not in the text. The text should be viewed as a complement to the lectures, not a substitute.

*Some Hints:*
1. If you are having problems, please seek out help early. Come in prepared, having gone over the lectures, text, and problems in the text. If you have missed any classes, make

sure you have gotten the missed notes from classmates. In cases like this, it usually pays to get the notes from at least two of your classmates.

2. Review Appendix A (Basic Mathematical Tools), B (Fundamentals of Probability), and C (Fundamentals of Mathematical Statistics).  Complete the Math Remediation Modules that are on MindTap.
3. The best way to learn econometrics is to keep going over it, work the problems in the textbook, and think about what you are doing at each step.
4. I suggest that you rewrite your notes after each lecture.   By rewriting your notes you will key in on any areas from the class that you feel need to be clarified
5. It is essential to have a command of the statistical package to complete this course successfully.  Be familiar with Stata as soon as possible.  Knowledge of Stata will not only help you complete your <u>weekly </u>homework assignments and the research paper, but also your future job search or studies in graduate school.   In addition to the program's help commands, instructional guidance can be found at Wooldrige's Stata tutorial [https://ng.cengage.com/static/nb/ui/evo/index.html?eISBN=9781305404236&id=340405721&snapshotId=879587&](https://ng.cengage.com/static/nb/ui/evo/index.html?eISBN=9781305404236&id=340405721&snapshotId=879587&) as well as [http://wps.aw.com/aw_stock_ie_3/178/45691/11696965.cw/](http://wps.aw.com/aw_stock_ie_3/178/45691/11696965.cw/)
6. Try to review the material in the textbook prior to class.
7. The course material builds on earlier work. It is essential that you master every part of the material.
8. Be sure to regularly log into the blackboard web site. The web site will contain old exams, handouts, and class announcements.   To access the Blackboard server:
    - Login into Blackboard at http://www.qc.cuny.edu/studentlife/services/online/Pages/Blackboard.aspx
    - Be sure to regularly check the email address listed on your Blackboard profile. The email address that is active in the CUNY portal is brought into the Blackboard system.  If this address is not the one you use, you can now change it in Blackboard.  Click the Update Email link in the Tools box on the left side of the HOME tab.  This will display the email currently in use by Blackboard and allow you to change it to a CUNY email address.
    - If you have questions about logging into Blackboard, you'll probably find answers at [http://qcpages.qc.cuny.edu/edtech/BlackBoard/students.html](http://qcpages.qc.cuny.edu/edtech/BlackBoard/students.html).
9. Keep on top of the homework assignments that are posted on MindTap.  You must complete the assignments by the date and time posted on MindTap.   Since I will drop your two lowest homework scores, I will not grant time extensions.
10. Complete the optional chapter quizzes.

*CUNY Policy On Academic Integrity*
 Academic dishonesty is prohibited in the City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at: http://web.cuny.edu/academics/info-central/policies.html.

*ADA Statement*
Students with disabilities needing academic accommodation should: (1)

register with and provide documentation to the Special Services Office; (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class. For more information about services available to Queens students contact: Special Services Office; 718-997-5895.

## COURSE OUTLINE

| TOPIC | | CHAPTER |
|---|---|---|
| I. | Nature of Econometrics | Ch. 1 |
| II. | Estimation and Hypothesis Testing | Chs. 2-4 |
| Exam I | | |
| III. | OLS Asymptotics and Further Issues | Chs. 5-6 |
| IV | Dummy Variables | Ch. 7 |
| V | Heteroskedasticity | Ch. 8 |
| Exam II | | |
| VI | Specification and Data Problems | Ch. 9 |
| VII | Limited Dependent Variables | Ch. 17 |
| VIII | Time Series | Ch. 10 |
| IX | Two Stage Least Squares | Ch. 15 |
| Final Exam | | |

# Mindtap

## What is MindTap?

MindTap empowers you to produce your best work – consistently.

MindTap is designed to help you master the material. Interactive videos, animations, and activities create a learning path designed by your instructor to guide you through the course and focus on what's important. Get started today!

### *Registration*

1.        Connect to https://www.cengage.com/dashboard/#/course-confirmation/MTPPGJ5NQ91G/initial-course-confirmation
2.        Follow the prompts to register your MindTap course.

### *Payment*

After registering for your course, you will need to pay for access using one of the options below:

**Online:** You can pay online using a credit or debit card, or PayPal.
**Bookstore:** You may be able to purchase access to MindTap at your bookstore. Check with the bookstore to find out what they offer for your course.
**Free Trial:** If you are unable to pay at the start of the semester you may choose to access MindTap until 11:59 PM on 02/08/2019 during your free trial. After the free trial ends you will be required to pay for access.
Please note: At the end of the free trial period, your course access will be suspended until your payment has been made. All your scores and course activity will be saved and will be available to you after you pay for access.

Already registered an access code? Bought MindTap at your bookstore or online? Now use the course link from your instructor to register for the class: https://www.cengage.com/dashboard/#/course-confirmation/MTPPGJ5NQ91G/initial-course-confirmation

### *System Check*

To check whether your computer meets the requirements for using MindTap, go to http://ng.cengage.com/static/browsercheck/index.html
Please Note: the System Check is also accessible in the drop down box next to your name located in the upper right corner of your MindTap page.