

CARLETON UNIVERSITY
Department of Economics

ECON 4706 B Econometrics I

Course Outline

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Winter 2020

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Prerequisites

The prerequisites for this course are ECON 2210 (or equivalent) with a grade of C+ or higher, and ECON 2220 (or equivalent) with a grade of C+ or higher, as outlined in the 2019-2020 Undergraduate Calendar. Students who believe they have taken a similar background course or courses from another university must provide appropriate documentation to the Department of Economics Undergraduate Administrator, Amanda Wright (LA C875).

Introduction

An introduction to econometric theory and analysis of the classical normal linear regression model. Topics include estimation methods, hypothesis testing, multicollinearity, indicator variables, heteroskedasticity, and an introduction to time-series methods.

ECON 4706 precludes additional credit for ECON 3706.

Organization

The class will meet twice a week at 10:05 a.m. on Tuesdays and Thursdays for a 1 hour and 20-minute lecture. In addition, a 1 hour and 20-minute tutorial session has been scheduled for Thursdays at 8:35 a.m. The tutorial sessions will be used for additional coverage of important course material, including the use of the STATA software package, together with assignment-related activities. There will be four (4) required assignments and a final exam. The final exam will be scheduled by Examination Services during the regular final examination period (April 13-25).

cuLearn and the Carleton email system will be used extensively as a means of communication with students. Therefore, students are strongly advised to access cuLearn and check their Carleton email at regular intervals in order to check for new information. To access cuLearn and the Carleton email system, students require a MyCarletonOne account. For questions about MyCarletonOne accounts, students should access carleton.ca/its/get-started/ (and then click on either New Students or New Grad Students, as appropriate) or contact the ITS Service Desk <https://carleton.ca/its/contact/>

Academic Integrity

Please ensure that you are familiar with and comply with the Carleton University Academic Regulations as they apply to Academic Integrity: <https://carleton.ca/senate/wp-content/uploads/Academic-Integrity-Policy1.pdf>

Assignments

Assignments will be posted on cuLearn and will be due in class according to the following schedule:

	<u>Posted</u>	<u>Due</u>
Assignment #1	January 28	February 11
Assignment #2	February 25	March 10
Assignment #3	March 10	March 24
Assignment #4	March 24	April 7

Students may wish to work together on assignment material, BUT each student MUST write up their own assignments INDEPENDENTLY. For further information on recognizing and avoiding plagiarism, see “Pammett on Plagiarism and Paraphrasing” at carleton.ca/economics/course/writing-preliminaries

Evaluation

The final % grade for this course will be calculated as follows:

Assignments	40% (4 assignments each worth 10%)
Final Examination	60%

This % grade will then be converted into the alphabetical grade system using the standard equivalences, as outlined in Section 5.4 of the Academic Regulations of the University in the 2019-2020 Undergraduate Calendar.

In the event that one or more assignments are not submitted, the weight of the missed assignment(s) will not be transferred to the final examination without a documented and compelling reason.

Students who do not write/attend the final examination because of illness or other circumstances beyond their control may apply to write a deferred final examination. In order to write a deferred final examination, students must contact the Registrar's Office. (For further details, see Section 4.3 of the Academic Regulations of the University in the 2019-2020 Undergraduate Calendar.) In the event that a student writes a deferred examination, the deferred examination will carry the same weight as the final examination in determining the course grade. Needless to say, any deferred examination will not be identical to the original final examination.

Finally, please note that: "Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by an instructor may be subject to revision. No grades are final until they have been approved by the Dean."

Requests for Academic Accommodation

You may need special arrangements to meet your academic obligations during the term:

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit [Equity Services website](#).

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the [Equity Services website](#).

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the [Paul Menton Centre website](#). If you require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC by March 13, 2020 for the Winter 2020 term.

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see [the policy](#).

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline

Academic Assistance

Students should be aware of and feel free to take advantage of the various services offered through the Centre for Student Academic Support (CSAS) <https://carleton.ca/csas/>

Textbook

The required textbook for this course is:

Dougherty, C. (2016), Introduction to Econometrics (5th Edition). Oxford: Oxford University Press. ISBN-10: 0199676828, ISBN-13: 9780199676828 (paperback)

An additional textbook that students may find useful is:

Kennedy, P. (2008), A Guide to Econometrics (6th Edition). Malden, MA: Blackwell Publishing. ISBN 978-1-4051-8257-7, (paperback)

The Kennedy book is really a “companion” to the study of econometrics rather than an econometrics textbook *per se*. It provides alternative and/or complementary discussions of all the topics treated in the course as well as a bridge to the econometrics literature. It would be particularly useful for students intending to take the sequel to this course, ECON 4707, and/or students intending to continue on to graduate study in economics.

Computer Package

Use of the STATA software package will be an integral part of this course. Personal copies of STATA will be available for download under Carleton's STATA site-licence. Details will be provided in class. Access to STATA will also be available through the Carleton student computer networks.

Course Content

1. Introduction and Statistical Review, Dougherty – Introduction and Review.
2. Simple Regression Analysis, Dougherty – Ch. 1.
3. Properties of the Regression Coefficients and Hypothesis Testing, Dougherty – Ch. 2.
4. Multiple Regression Analysis, Dougherty – Ch. 3.
5. Nonlinear Models and Transformations of Variables, Dougherty – Ch. 4.
6. Dummy Variables, Dougherty – Ch. 5.
7. Specification of Regression Variables, Dougherty – Ch. 6.
8. Heteroskedasticity, Dougherty – Ch. 7.
9. Autocorrelation, Dougherty – Section 11.1, Ch. 12.

**IF YOU HAVE PROBLEMS WITH THIS COURSE, PLEASE LET ME KNOW!
IF I DON'T KNOW THAT YOU HAVE PROBLEMS, I CAN'T FIX THEM!**