

McGill University  
Department of Economics

**PRELIMINARY COURSE OUTLINE**

ECON 665: Quantitative Methods  
Fall 2017

**Instructor Contact Information:**

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**Regular Classes:**

Times: Mondays and Wednesdays: 10:05 a.m. to 11:25 a.m.  
Room: LEA212

LEA 212 is **computer classroom**. The laptop computers are small and highly valuable. One can log onto the computers using a McGill email and password, students and faculty members.

**Office Hours:**

Monday : 12:00 to 1:30 PM or by appointment

**Course Description:**

The aim of this course is to provide you with some of the basic statistic tools to allow you to understand the basic empirical methods that are used in graduate economics at the Master's level. This course is not an econometrics course. Students willing to have a solid grounding in econometrics in order to pursue sophisticated research either in theoretical or applied fields in Economics as part of the MA or Ph.D. program are strongly encouraged to enroll in ECON662.

After a review of basic notions in statistics and data management, the emphasis of the course will be on developing an hands-on approach to data analysis and how these methods can be associated with economic modeling in order to improve economic analysis and accompany your learning in your other courses in your graduate program. We will meet in the computer room, using STATA to provide descriptive analysis to a

large array of data sets in different settings and economic fields. Learning will be through doing in-class work, assignments, and a class presentation and a paper. There will also be a final exam.

The course assumes that you have acquired previously some background in statistics. The course will use a recent textbook that very much emphasizes practice that, while not being specifically about economics, can be used as a very good reference for the types of things we will do.

[\*Applied Statistics Using Stata: A Guide for the Social Sciences\*](#) by Mehmet Mehmetoglu and Tor Georg Jakobsen, (2017) Sage. 356 pages.

The course will also make available via its webpage articles and data sets that one will use to supplement the textbook. In addition, those of you needing some review of basic undergraduate statistics may want to consult a book such as :

[\*Introductory Econometrics: A Modern Approach, Sixth Edition\*](#)  
Jeffrey M. Wooldridge

[\*Introduction to Econometrics, Update, Third Edition\*](#)  
James H. Stock and Mark W. Watson

Other books that may be useful to accompany you during the term:

[\*An Introduction to Modern Econometrics Using Stata\*](#)  
Christopher F. Baum

[\*Mostly Harmless Econometrics: An Empiricist's Companion\*](#)  
Joshua D. Angrist and Jorn-Steffen Pischke

[\*Using Stata for Principles of Econometrics, Fourth Edition\*](#)  
Lee C. Adkins and R. Carter Hill

The course plans to cover the following topics during the term:

- 1) Review of statistical principles
- 2) Review of data analysis principles
- 3) Introduction to Stata: commands, practice and some programming
- 4) Exploratory data tools: parametric and non-parametric
- 5) Basic principles of regression analysis
- 6) Violations of principles, tests and methods
- 7) Issues with data: Survey designs, panel, time series
- 8) Issues with Limited dependent variables
- 9) Evaluation methods
- 10) Others

Depending on the topics that you will want to explore in your paper, I may also put some emphasis on some material and will adjust the outline accordingly.

### **Course Evaluation:**

1) Assignments (3 assignments through the term)	<b>20%</b>
2) Paper (Proposal, Presentation and Paper):	<b>50%</b>
3) Final exam in December:	<b>30%</b>

The paper is an important part of the course grade. Since learning empirical methods is best done through practice, the paper will allow you to work on a topic of your choice. You need to submit a short proposal at the end of September in which you will outline the issue you want to explore, the data set(s) you will use and which methods you will use in order to explore the issue you are interested in. Once the proposal is accepted, you are expected to work on your paper by performing the data analysis with the methods we will see throughout the course. In November, you are expected to make a short class presentation on your data analysis and discuss the preliminary results. The feedback from your presentation will allow you to improve your analysis and write a better paper.

The assignments and the exam will also emphasize hands-on issues while still relying on some sound theoretical knowledge of the empirical methods we will use throughout the course.

We are fortunate to have a teaching assistant for this ECON665 course, Mr. Jean-Louis Barnwell Ménard. Both he and I will be available for consultations and discussions to help you with the course material, the assignments and the paper.

### **Official Disclaimers:**

#### **1. Preliminary Outline**

This is a preliminary outline. This reading list is preliminary as more material will be added during the term as more papers and web links become available. Furthermore, I hope to use the Webct page as a course blog to point out some of the interesting issues being discussed, papers being written, or points made by various empirical researchers

### **Language**

*In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.* This right applies to **all** written work that is to be graded, from one-word answers to dissertations. This statement is not needed for courses in which acquiring proficiency in a language is one of the objectives or for courses in which students do not submit written work that is to be graded. Instructors who cannot grade French written work should consult their Chair/Director or Dean, in faculties without departments, to make arrangements for grading French submissions.

**2. Academic Integrity statement** [approved by Senate on 29 January 2003]:

*McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see [www.mcgill.ca/students/srr](http://www.mcgill.ca/students/srr) <<http://www.mcgill.ca/integrity/>> for more information).*

*L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site [www.mcgill.ca/students/srr](http://www.mcgill.ca/students/srr) <<http://www.mcgill.ca/integrity/>> ).*

**3. Final Examinations**

According to Senate regulations, instructors are not permitted to make special arrangements for final exams. Please consult the calendar, section 4.7.2.1, General University Information and Regulations, at [www.mcgill.ca](http://www.mcgill.ca).