

**ECONOMICS 3WW3 – APPLIED ECONOMETRICS**  
DEPARTMENT OF ECONOMICS, McMASTER UNIVERSITY

**WINTER 2017**

**INSTRUCTOR**

Alisa Tazhitdinova  
KTH 415  
tazhitda@mcmaster.ca  
Office Hours: TBA

**TEACHING ASSISTANT**

Shaun Shaikh  
KTH 728  
Email: shaikhsa@mcmaster.ca  
Office hours: TBA

**CLASS TIMES:** Tuesday 10:30-11:20 and Thursday 9:30-10:20, both in KTH B132

**LAB TIMES:** Tuesday 8:30-9:20 or 9:30-10:20, both in KTH B121

Important Notes

- This course uses Avenue to post the course outline, assignments, and other notices. You should check it regularly.
- When Emailing, please put “Econ 3WW3” in the subject line. In keeping with official policy of the Faculty of Social Sciences, I will respond only to student e-mails sent from a McMaster account. Please do not use the mail function within Avenue.

Course Objective

The objective of the course is to train students in applied econometrics, including single and multiple regression estimation and related hypothesis testing. Emphasis will be placed on practical use of such methods in a variety of economic examples.

Materials and Fees

The course has a required text:

Stock, James H., & Mark W. Watson, 2015, Introduction to Econometrics, Third edition updated, Pearson Addison-Wesley.

All students should purchase this text which is available in the Campus Store. We will also use related ancillary materials that are available free of charge on the text’s associated website. Earlier editions will not provide the necessary material and are not suitable for the course.

In addition, we will make extensive use of Stata ([www.stata.com](http://www.stata.com)) as data analysis and statistical software. Stata/IC (“intercooled”) is available in the KTH computer labs. Students may also wish to consider purchase of Stata/IC (or larger versions termed Stata/SE and Stata/MP), although this is not required. Details at [www.stata.com/order/new/edu/gradplans/campus-gradplan/](http://www.stata.com/order/new/edu/gradplans/campus-gradplan/). (Note that “Small Stata” is not sufficient for our purposes.) There are no required fees for this course.

## Course Overview and Assessment

There are three sets of formal requirements for the course, as follows, with grade weight listed in parentheses.

1. Four assignments (take-home) to be handed in during class. Each assignment will be made available to students one week prior to the due date. No late assignments will be accepted. **(5% each, 20% in total)**
2. Two practical midterm tests to be conducted in the **KTH Computer Labs during class hours on February 16 and March 21**. These dates cannot be adjusted. **(25% each)**
3. A two-hour final examination covering the whole in the December exam period. This examination will be a written test conducted in a standard room as determined by the Registrar's office. (It will not involve use of the computer.) **(30%)**

Outline of Topics/deadlines (preliminary outline subject to change, midterm dates fixed)

*Day: Topic (S&W chapter(s))*

January 5	Economic questions and econometrics (1)
January 10	Economic questions and econometrics (1)
January 12	Review: basic probability (2)
January 17	Review: basic probability (2)
January 19	Review: elementary statistics (3)
January 24	Review: elementary statistics (3)
January 26	Linear regression with one regressor (4)
January 29	Linear regression with one regressor (4)
January 31	Single regressor: hypothesis tests, confidence intervals (5)
February 2	Single regressor: hypothesis tests, confidence intervals (5)
February 7	...continued
February 9	Multiple regression (6)
February 14	Multiple regression (6)
February 16	<b>MIDTERM TEST 1 (in KTH B121 &amp; B123, in class time slot)</b>
<i>Fall Recess: February 20-26</i>	
February 28	Multiple regression: hypothesis tests, confidence intervals (7)
March 2	Multiple regression: hypothesis tests, confidence intervals (7)
March 7	...continued
March 9	...continued
March 14	Nonlinear regression (8)
March 16	Nonlinear regression (8)
March 21	<b>MIDTERM TEST 2 (in KTH B121 &amp; B123, in class time slot)</b>
March 23	Assessing multiple regression studies (9)
March 28	Assessing multiple regression studies (9)
March 30	...continued
April 4	...continued
April 6	Review

In addition to my lectures on material from the course text, the TA will use the mandatory lab to teach the use of Stata.

## **ECON 3WW3 - Applied Econometrics**

3 unit(s)

Students acquire hands-on experience, using statistical software, in the application of econometric methods to empirically analyze economic issues. This course emphasizes understanding economic data, economic model estimation, hypothesis testing, and interpretation of results.

Three hours; one tutorial; one term

**Prerequisite(s):** [ECON 2G03](#) or [ECON 2X03](#); and [ECON 2H03](#); and [ECON 2B03](#) and enrolment in an Honours Economics program.

**Antirequisite(s):** [ECON 3U03](#)

*ECON 2B03 may be substituted with one of [CHEMENG 4C03](#), [COMMERCE 2QA3](#), [ENVIRSC 2MB3](#), [GEO 2S03](#), [GEOG 2LL3](#), [2MB3](#), [2N03](#), [POLSCI 2F06](#), [3N06 A/B](#), [3NN3](#), [PNB 2XE3](#), [PSYCH 2RA3](#), [2RB3](#), [SOCSCI 2J03](#), [SOCIO 2Y03](#), [3H06 A/B](#), [STATS 1A03](#), [1CC3](#), [2D03](#), [2R06](#) or another course that is approved by a departmental counselor as equivalent to ECON 2B03.*

### Academic Dishonesty

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

### Academic Accommodation of Students with Disabilities

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140, ext. 2865 or e-mail [sas@mcmaster.ca](mailto:sas@mcmaster.ca). For further information, consult McMaster University's Policy for Academic Accommodation of Students with Disabilities.

### Possible Course Modifications

At certain points in the course it may make good sense to modify the outlined schedule. The instructor reserves the right to modify elements of the course and will notify students accordingly (in class and on the course website).

### On Line Elements

Avenue will be used for course announcements, files that you can download, and your grades. In addition, we will use e-mail. Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

### E-Mail Policy

In keeping with official policy of the Faculty of Social Sciences, I will respond only to student e-mails sent from a McMaster account. Please do not use the mail function within Avenue.