

**Faculty of Science Course Syllabus
Department of Economics
Econometrics I, ECON 3338
Fall 2016**

Instructor:

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Timetable:

Lecture Hours:

- Section 1: Tuesday/Thursday, 8.35-9.55, Mona Campbell 1108
- Section 2: Tuesday/Thursday, 10.05-11.25, McCain 2184

Tutorial Hours:

- Tuesday/Thursday, 11.35-12.55, McCain 2018/ Compute Science 127

Office Hours:

- Instructor: Tuesday/Thursday, 14.00-15.30 (or by appointment)
- Teaching Assistant: TBD

Prerequisites:

MATH 1000.03 and ECON 2280.03/MATH 2080.03/STAT 2080.03

Course Description:

The theory of some quantitative methods commonly used by economists is discussed in the context of the classical linear model. Estimation problems caused by violations of the assumptions of the classical model are studied including heteroscedasticity and autocorrelation.

Objectives of the course:

This course introduces statistical tools for handling economic and financial data generated in uncontrolled environments, and the techniques involved in their use.

Learning outcomes and competences:

The objectives of the course are that the participants can:

- formulate the simple linear regression model and examine the procedure of Ordinary Least Squares for its estimation
- conduct hypothesis testing on economic questions based on estimates from single regression models
- formulate the multiple linear regression model and its underlying assumptions
- estimate and interpret the parameters of multiple linear regressions
- describe the statistical properties of the estimated parameters
- apply hypothesis testing concerning the parameters of multiple regression models
- apply the estimated regression model to compute forecasts and to interpret the precision of these forecasts
- describe the consequences of multicollinearity, omitted variables, functional form misspecification, heteroskedasticity and autocorrelation in multiple regression models

- evaluate the adequacy of the estimated regression models by performing test for omitted variables functional form misspecification as well as neglected heteroskedasticity and autocorrelation
- apply efficient estimation in regression models with heteroskedastic innovations
- discuss multiple regression models in a panel data framework and interpret the results.

Course contents:

1. Regression analysis with a single explanatory variable (Simple Regression)
2. Regression analysis with several explanatory variables (Multiple Regression).
3. Model estimation and specification.
4. Hypothesis testing in simple and multiple regressions.
5. Partial regression.
6. Functional form, dummy variables and parameter stability.
7. Heteroskedasticity.
8. Panel data regression

Format:

Regular lectures, tutorials and computer practice sessions.

Material:

- James H. Stock and Mark W. Watson "Introduction to Econometrics", 3rd Edition, Updated version, Chapters 1-10.
- Additional Notes, as required: available via [Brightspace](#).

Software:

- **STATA**
 - + STATA is available in McCain Bldg computer labs. You can also purchase an individual licence at a student rate:
<http://www.stata.com/order/new/edu/gradplans/campus-gradplan/>
Note that although a cheaper student version is available, it can only handle a limited number of variables and observations.

Assessment:

- Attendance/Participation: 5%
- Assignments: 10%
 - + Weekly assignments involving theoretical and computer exercises.
 - + Due in the beginning of the class (20% mark-down for every hour delayed)
- Midterm Exam: 25%
- Final term Project: 20%
 - + Although the choice of topic is in the student's discretion, it would need to be approved by the instructor.
 - + Specific directions will be provided early in the term.
 - + It must be handed-in in the lecture on the due date or before.
- Final Exam: 40%
- Notes:
 - + If you have a valid, verifiable, reason for not submitting an assignment, its weight will be distributed among the remaining ones.

- + One can miss the midterm if she/he has a valid, verifiable (eg. original doctor note), reason. In this case, the weight of the particular exam will be added into the final exam weight.
- + If a student misses the final exam for a valid medical reason, she/he must notify the instructor immediately, provide appropriate medical documentation, and make arrangements to write a comprehensive exam as soon as health permits.

Grading scheme:

A+	A	A-	B+	B	B-	C+	C	C-	D	F
90-100	85-89	80-84	77-79	73-76	70-72	65-69	60-64	55-59	50-54	<50

Important Dates (midterm date is tentative):

- Last day to withdraw from the course: September 19th
- Midterm Exam: October 20th
- Project dates due dates:
 - + Proposal: November 1st
 - + Preliminary draft due: December 1st
 - + Final paper due: December 8th
- Fall study break : November 7th-11th
- Final Exam: Regular exam period (December 8th- December 18th)

Email Policy:

- Weekdays: emails received by 18.00 would be responded by the end of the day. Anything after that time would be responded in the following day.
- Weekends: emails are to be checked sporadically and you should not expect a response within the same day.
- Lengthy questions are easier and preferable to be answered during office hours.
- Make sure that you have checked the course outline and all material available in Brightspace prior to asking a question.

ACCOMMODATION POLICY FOR STUDENTS

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic protected under Canadian Human Rights legislation. The full text of Dalhousie's Student Accommodation Policy can be accessed here:

http://www.dal.ca/dept/university_secretariat/policies/academic/student-accommodation-policy-wef-sep--1--2014.html

Students who require accommodation for classroom participation or the writing of tests and exams should make their request to the **Advising and Access Services Centre (AASC)** prior to or at the outset of the regular academic year. More information and the ***Request for Accommodation*** form are available at www.dal.ca/access.

ACADEMIC INTEGRITY

Academic integrity, with its embodied values, is seen as a foundation of Dalhousie University. It is the responsibility of all students to be familiar with behaviours and practices associated with academic integrity. Instructors are required to forward any suspected cases of plagiarism or other forms of academic cheating to the Academic Integrity Officer for their Faculty.

The Academic Integrity website (<http://academicintegrity.dal.ca>) provides students and faculty with information on plagiarism and other forms of academic dishonesty, and has resources to help students succeed honestly. The full text of Dalhousie's ***Policy on Intellectual Honesty*** and ***Faculty Discipline Procedures*** is available here:

http://www.dal.ca/dept/university_secretariat/academic-integrity/academic-policies.html

STUDENT CODE OF CONDUCT

Dalhousie University has a student code of conduct, and it is expected that students will adhere to the code during their participation in lectures and other activities associated with this course. In general:

“The University treats students as adults free to organize their own personal lives, behaviour and associations subject only to the law, and to University regulations that are necessary to protect

- the integrity and proper functioning of the academic and non-academic programs and activities of the University or its faculties, schools or departments;
- the peaceful and safe enjoyment of University facilities by other members of the University and the public;
- the freedom of members of the University to participate reasonably in the programs of the University and in activities on the University's premises;
- the property of the University or its members.”

The full text of the code can be found here:

http://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

DEPARTMENT OF ECONOMICS STATEMENT ON ACADEMIC INTEGRITY

SERVICES AVAILABLE TO STUDENTS

The following campus services are available to help students develop skills in library research, scientific writing, and effective study habits. The services are available to all Dalhousie students and, unless noted otherwise, are free.

Service	Support Provided	Location	Contact
General Academic Advising	Help with <ul style="list-style-type: none"> - understanding degree requirements and academic regulations - choosing your major - achieving your educational or career goals - dealing with academic or other difficulties 	Killam Library Ground floor Rm G28 <i>Bissett Centre for Academic Success</i>	In person: Killam Library Rm G28 By appointment: <ul style="list-style-type: none"> - e-mail: advising@dal.ca - Phone: (902) 494-3077 - Book online through MyDal
Dalhousie Libraries	Help to find books and articles for assignments Help with citing sources in the text of your paper and preparation of bibliography	Killam Library Ground floor Librarian offices	In person: Service Point (Ground floor) By appointment: Identify your subject librarian (URL below) and contact by email or phone to arrange a time: http://dal.beta.libguides.com/sb.php?subject_id=34328
Studying for Success (SFS)	Help to develop essential study skills through small group workshops or one-on-one coaching sessions Match to a tutor for help in course-specific content (for a reasonable fee)	Killam Library 3rd floor Coordinator Rm 3104 Study Coaches Rm 3103	To make an appointment: <ul style="list-style-type: none"> - Visit main office (Killam Library main floor, Rm G28) - Call (902) 494-3077 - Email Coordinator at: sfs@dal.ca or - Simply drop in to see us during posted office hours All information can be found on our website: www.dal.ca/sfs
Writing Centre	Meet with coach/tutor to discuss writing assignments (e.g., lab report, research paper, thesis, poster) <ul style="list-style-type: none"> - Learn to integrate source material into your own work appropriately - Learn about disciplinary writing from a peer or staff member in your field 	Killam Library Ground floor Learning Commons & Rm G25	To make an appointment: <ul style="list-style-type: none"> - Visit the Centre (Rm G25) and book an appointment - Call (902) 494-1963 - email writingcentre@dal.ca - Book online through MyDal We are open six days a week. See our website: writingcentre.dal.ca

DEPARTMENT OF ECONOMICS STATEMENT ON ACADEMIC INTEGRITY

At Dalhousie University, we respect the values of academic integrity: honesty, trust, fairness, responsibility, and respect. As a student, adherence to the values of academic integrity and related policies is a requirement of being part of the academic community at Dalhousie University.

What does academic integrity mean?

Academic integrity means being honest in the fulfillment of your academic responsibilities, thus establishing mutual trust. Fairness is essential to the interactions of the academic community and is achieved through respect for the opinions and ideas of others. “Violations of intellectual honesty are offensive to the entire academic community, not just to the individual faculty member and students in whose class an offence occurs.”

(<http://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=1&chapterid=89&topicgroupid=381&loadusercredits=False>)

How can you achieve academic integrity?

- Make sure you understand Dalhousie’s policies on academic integrity.
- While discussion with your fellow students is valuable, do not submit an assignment or essay that is essentially identical to an assignment or essay submitted by another individual or group.
- In assignments or essays, use an approved method of citation for any material taken directly from an existing source or any material that is a paraphrase of an existing source.
- Do not download the work of another from the Internet and submit it as your own.
- Do not submit work that has been completed through collaboration or previously submitted for another assignment without permission from your instructor.
- Do not have someone else write a test for you, or write a test for someone else.
- During a test, do not talk with other students and do not try to copy the work of another student.

What will happen if an allegation of an academic offence is made against you?

Instructors are required to report any suspected offence. The full process is outlined in the Discipline flow chart (found at <http://academicintegrity.dal.ca>) and includes the following:

- Each Faculty has an Academic Integrity Officer (AIO) who receives allegations from instructors.
- The AIO decides whether to proceed with the allegation and you will be notified of the process.
- If the case proceeds, you will receive a PENDING grade until the matter is resolved.
- If you are found guilty of an academic offence, a penalty will be assigned ranging from a warning to suspension or expulsion from the University and can include a notation on your transcript, failure of the assignment, or failure of the course. All penalties are academic in nature.

Where can you turn for help?

- If you are ever unsure about ANYTHING, contact your instructor.
- See <http://academicintegrity.dal.ca> for links to policies, definitions, online tutorials, and tips on citing and paraphrasing.
- See <http://writingcentre.dal.ca> for assistance with proofreading, writing styles, and citations.
- See <http://libraries.dal.ca/research.html> for a set of research tools including Subject Guides,

Assignment Calculator, and RefWorks.

- See <http://studentservices.dal.ca> for assistance with appeals and discipline procedures.
- See <http://senate.dal.ca> for a list of Academic Integrity Officers, a discipline flow chart, and the Senate Discipline Committee.

The [Policy on Student Submission of Assignments & Use of Originality Checking Software](#) states that “any instructor may require student assignments to be submitted in both written and electronic (computer-readable) form, e.g., a text file or as an email attachment, as defined by the instructor. Use of third-party originality checking software does not preclude instructor use of alternate means to identify lapses in originality and attribution. The results of such assessment may be used as evidence in any disciplinary action taken by the Senate.”