COURSE OUTLINE

Class schedule: Wednesday 8:30-11:20am
FSS9003

Professor’s office hours: Friday 8:30-10:00pm
Social Science Building, 9054
613-562-5800 ext. 8910 (I strongly prefer emails)

E-mail: abrodeur@uottawa.ca

Any questions sent by email should receive a response within two business days or during the following class if taken place within the 48 hours following receipt of the email. Note that the professor reserves the right not to answer an email if the level of language used is inadequate.

OFFICIAL COURSE DESCRIPTION

Analysis of the concepts and tools used in micro-econometrics with particular focus on empirical applicability. Topics may include discrete choice models, limited dependent variables, panel data, duration models, and program evaluation, together with relevant economic applications.

Prerequisite: ECO5185 (or equivalent).

GENERAL COURSE OBJECTIVES

This course will cover the major econometric techniques used by applied economists. At the end of the course, you should have a good idea of research questions and the most relevant methods to answer research questions. This should help you to formulate research questions in your field, as well as equip you to tackle these questions with contemporary methods.
TEACHING METHODS

There is no required textbook for this course. Many of the readings listed below are articles for which the University of Ottawa has an online subscription. Others will be made available on reserve.

A very good graduate text which cover many of the concepts we will discuss (and is thus a good resource to consult) is:


While there exist several econometric software packages that are well-adapted to the estimation of models for microdata, not all of them are readily available on campus. For this course you will be required to learn and use Stata. If you wish to order your own copy of Stata, you must do so through the company. Stata is also available in the campus computer labs for social science students, so it is not necessary to purchase your own copy.

See Knittel and Metaxoglou (2016) for a set of best practices on how to organize, process and analyze data.

ASSESSMENT METHODS

Professors must return work worth at least 25 percent of the total course no later than one week prior to the deadline for withdrawal without academic penalty. The final exam or its equivalent cannot count for more than 60 percent or less than 30 percent of the final grade.

No test with a value exceeding 10 percent of the final grade may be given during the last week of classes (last three hours of teaching).

Components of Final Mark

<table>
<thead>
<tr>
<th>Evaluation format</th>
<th>Weight</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Exercise</td>
<td>5 %</td>
<td>Due on Feb. 4</td>
</tr>
<tr>
<td>Replication</td>
<td>20 %</td>
<td>Due on March 20</td>
</tr>
<tr>
<td>Research project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1- Individual written component</td>
<td>40 %</td>
<td>Due on April 16</td>
</tr>
<tr>
<td>2- Presentation</td>
<td>10 %</td>
<td>March 27 or April 3</td>
</tr>
<tr>
<td>Final exam</td>
<td>25 %</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

The presentation and exam are not optional. Should you miss the final exam or presentation for any serious reason, it must be justified in writing, to the academic assistants of the Faculty, within five business days following the date of the exam or submission of an assignment.

Students who are excused for missing an exam will be required to write a deferred exam. Online DFR forms must be completed for the final exam. The online form can be obtained at https://socialsciences.uottawa.ca/students/undergraduate-forms. A copy of the supporting documentation must be joined to your request in order for you to submit the online form. All requests must be submitted within five working days of the exam. The request must respect all the conditions of Academic Regulation 19.5 (https://www.uottawa.ca/administration-and-governance/academic-regulation-9-evaluation-of-student-learning). The date of the deferred final exam is May 3rd, 2019.
Policy on language quality and late submissions

Class attendance is necessary to successfully complete this course.

You will also be judged on your writing abilities. It is recommended to take the appropriate measures to avoid mistakes such as spelling, syntax, punctuation, inappropriate use of terms, etc. You may be penalized up to 15%, to the professor’s discretion.

Late submissions are not tolerated. Exceptions are made only for illness or other serious situations deemed as such by the professor. There will be a penalty for late submissions. University regulations require all absences from exams and all late submissions due to illness to be supported by a medical certificate.

Students who are excused for missing an exam will be required to write a deferred exam, except where the professor offers a re-weighting scheme which applies to the student’s case. Professors may decline to offer a deferred exam and instead re-weight the remaining pieces of work only if (i) the re-weighted scheme is indicated on the syllabus and (ii) it respects both the 25 percent rule and the final exam rule.

DFR forms must be completed for both midterms and final exams. The form can be obtained at https://socialsciences.uottawa.ca/students/undergraduate-forms. Once completed, the form with supporting documentation (ex. medical certificate) will automatically be sent to the academic unit which offers the course. The request must be completed within five working days of the exam and must respect all the conditions of Academic Regulation I9.5 (https://www.uottawa.ca/administration-and-governance/academic-regulation-9-evaluation-of-student-learning).

The Faculty reserves the right to accept or refuse the reason. Reasons such as travel, jobs, or any misreading of the examination timetable are not acceptable.

For your information: use as needed

A penalty of 5% will be given for each subsequent day following the due date (weekends not included). This goes for assignments submitted through e-mail as well, and, in this case, the time that the e-mail was received will be counted as the time of submission of the document.

We suggest that you advise your professor as early as possible if a religious holiday or a religious event will force you to be absent during an evaluation.

The University of Ottawa does not tolerate any form of sexual violence. Sexual violence refers to any act of a sexual nature committed without consent, such as rape, sexual harassment or online harassment. The University, as well as student and employee associations, offers a full range of resources and services allowing members of our community to receive information and confidential assistance and providing for a procedure
to report an incident or make a complaint. For more information, visit www.uOttawa.ca/sexual-violence-support-and-prevention

SCHEDULE

Course outline:

1. **Introduction (January 9)**


   Quick Stata Guide, Liz Foster: http://www.princeton.edu/wwac/academic-review/stata/

2. **Program Evaluation and Limitations of OLS (January 16 and 23)**


3. **Randomized Control Trial (January 30)**


4. **Instrumental Variable (February 6)**


5. **Regression Discontinuity Design (February 13)**


6. **Differences-in-Differences (February 27)**


7. Matching and Synthetic Control Methods (March 6)


8. Replication (March 13)


9. Research Transparency (March 20)


10. Presentations (March 27 and April 3)
Objectives:
- Write a short paper
- Using a statistical software

Tasks:
- Write a short research paper
- Run a wage regression

Data Exercise:
The purpose of this data exercise is to help you discover the statistical software Stata. You need to submit your preferred estimate (and do-file that generates it) for an earnings function that has as regressors: Education, experience, gender, and province. We are interested in the coefficients on gender and education.

This exercise will use one quarter from the Labour Force Survey (to be provided). You also need to provide a short paper in which you describe your results. The short paper should be no more than 1 page of text including the table. Ideally you would want to describe your results in one or two sentences.

The data exercise is due on February 4th.

The mark breakdown for the data exercise will be as follows:
- Text (Clarity/Organization/Style) /0
- Results and do-file /5

You should do this without consulting other class members! Plagiarism is a serious offence and will not be tolerated!!!!!
Objectives:
- Learn about replications in economics
- Using a statistical software

Tasks:
- Replicate research articles

Replication:
The purpose is to replicate research articles published in top economics journals. More precisely, the purpose is to duplicate the results of a prior study using the same materials and procedures as were used by the original investigator.

More details will be provided in class. Note that the lecture on March 6th will be dedicated to replications.

You will need to fill out a form describing your replications.

The deadline to submit the forms and your replications is March 20th.
MICRO-ECONOMETRICS
ECO 6175
RESEARCH PROJECT

Objectives:
- Research a specific (policy) issue
- Develop an argument
- Write a research paper
- Improve presentation skills
- Use a statistical software

Tasks:
- Write a research paper
- Present a research paper

The mark breakdown for the research project will be as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research paper</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>35</td>
</tr>
<tr>
<td>Organization/Style/Clarity</td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>7</td>
</tr>
<tr>
<td>Organization/Style/Clarity</td>
<td>3</td>
</tr>
</tbody>
</table>

If your research paper is late, a penalty of 5% will be given for each subsequent day following the due date, unless you provide me with an official medical certificate.

Plagiarism is a serious offence and will not be tolerated!!!!!

I strongly recommend that you discuss your topic with me as early as possible during the term so as to ensure that you do not select an unacceptable or infeasible topic. I need to approve your topic! The deadline for approval is January 30th, 2019. Note that you need to rely on an identification strategy covered in class.

You need to write an empirical paper. Empirical papers use data collected by observation, or by experiment, to answer a research question.

Note that the Public Use versions of many Statistics Canada microdata sets can now be retrieved directly through a service called odesi, which is accessible through the university library website. Census data are available both through the Canadian Census Analyzer (also accessible through the library website) and through odesi.

Research Paper:
The research paper and your do-file are due on April 16th. Send me your research paper and your do-file by email.

Page limit and structure:
The research paper should be no more than 22 pages and no less than 20 pages (double spaced, 12 point font).

Title page and abstract: 1 page
Introduction: 3 pages approximately
Conceptual framework: 1-2 pages approximately
Data and descriptive statistics: 2 pages approximately
Identification strategy: 1-2 pages approximately
Results: 3 pages approximately
Conclusion: 1 page
Reference: 2 pages approximately
Figures and tables: 6 pages approximately

Provide complete references, i.e. author, title, journal, etc. Follow the style guide for the Quarterly Journal of Economics.

Presentation:
I will provide detailed information about how to present your research paper during the first class.

Duration: (20 minutes)

Structure:
Introduction: 3 minutes approximately
(2 slides: You should introduce your topic and tell us why we care about your research question. Tell us in the introduction what is your main result.)
Literature review: less than 1 minute
Conceptual framework: 2 minutes approximately
(1-2 slides: Describe the mechanisms or theory.)
Dataset and descriptive statistics: 2 minutes approximately
(2 slides: 1 slide describing your main dataset and your sample and 1 slide showing a table with descriptive statistics.)
Identification strategy: 2 minutes approximately
(1 slide with your main specification/equation)
Results: 4 minutes approximately
(3 slides: show 2 tables or figures)
Conclusion: 1 minute approximately
We will ask questions for approximately 5 minutes!

If you miss your presentation due to illness, it must be justified:

You would have to submit a second research paper on a different topic (same length and instructions). This second article would be due on April 23rd. The mark breakdown for the second research article would be as follows:

Content /8
Organization/Style/Clarity /2
**Resources for you**

**FACULTY MENTORING CENTRE** - [http://socialsciences.uottawa.ca/mentoring](http://socialsciences.uottawa.ca/mentoring)

The goal of the Mentoring Centre is to help students with their academic and social well-being during their time at the University of Ottawa. Regardless of where a student stands academically, or how far along they are in completing their degree, the Mentoring Centre is there to help students continue on their path to success.

A student may choose to visit the Mentoring Centre for very different reasons. Younger students may wish to talk to their older peers to gain insight into programs and services offered by the University, while older student may simply want to brush up on study and time management skills or learn about programs and services for students nearing the end of their degree.

In all, the Mentoring Centre offers a place for students to talk about concerns and problems that they might have in any facet of their lives. While students are able to voice their concerns and problems without fear of judgment, mentors can garner further insight in issues unique to students and find a more practical solution to better improve the services that the Faculty of Social Sciences offers, as well as the services offered by the University of Ottawa.

**ACADEMIC WRITING HELP CENTRE** - [http://www.sass.uottawa.ca/writing/](http://www.sass.uottawa.ca/writing/)

At the AWHC you will learn how to identify, correct and ultimately avoid errors in your writing and become an autonomous writer. In working with our Writing Advisors, you will be able to acquire the abilities, strategies and writing tools that will enable you to:

- Master the written language of your choice
- Expand your critical thinking abilities
- Develop your argumentation skills
- Learn what the expectations are for academic writing


There are many reasons to take advantage of the Counselling Service. We offer:

- Personal counselling
- Career counselling
- Study skills counselling

**HUMAN RIGHTS OFFICE** - [https://www.uottawa.ca/respect/en](https://www.uottawa.ca/respect/en)

**Mandate:**
To provide leadership in the creation, implementation and evaluation of policies, procedures and practices on diversity, inclusion, equity, accessibility and the prevention of harassment and discrimination.

**Contact information:**
1 Stewart St. (Main Floor – Room 121) - Tel.: 613-562-5222 / Email: respect@uOttawa.ca

**ACCESS SERVICE** - [http://sass.uottawa.ca/en/access](http://sass.uottawa.ca/en/access)

The University has always strived to meet the needs of individuals with learning disabilities or with other temporary or permanent functional disabilities (hearing/visual impairments, sustained health issues, mental health problems), and the campus community works collaboratively so that you can develop and maintain your autonomy, as well as reach your full
potential throughout your studies. You can call on a wide range of services and resources, all provided with expertise, professionalism and confidentiality.

If barriers are preventing you from integrating into university life and you need adaptive measures to progress (physical setting, arrangements for exams, learning strategies, etc.), contact the Access Service right away:

- in person at the University Centre, Room 339
- online
- by phone at 613-562-5976

**Deadlines for submitting requests for adaptive measures during exams**

- midterms, tests, deferred exams: seven business days before the exam, test or other written evaluation (excluding the day of the exam itself)
- final exams:
  - November 15 for the fall session
  - March 15 for the winter session
  - Seven business days before the date of the exam for the spring/summer session (excluding the day of the exam itself).

**CAREER DEVELOPMENT CENTRE -** [http://www.sass.uottawa.ca/careers/](http://www.sass.uottawa.ca/careers/)

Career Development Centre offers various services and resources in career development to enable you to recognize and enhance the employability skills you need in today's world of work.


The Student Resources Centres aim to fulfill all sorts of student needs.

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**Beware of Academic Fraud!**

Academic fraud is an act committed by a student to distort the marking of assignments, tests, examinations, and other forms of academic evaluation. Academic fraud is neither accepted nor tolerated by the University. Anyone found guilty of academic fraud is liable to severe academic sanctions.

Here are a few examples of academic fraud:

- engaging in any form of plagiarism or cheating;
- presenting falsified research data;
- handing in an assignment that was not authored, in whole or in part, by the student;
• submitting the same assignment in more than one course, without the written consent of the professors concerned.

In recent years, the development of the Internet has made it much easier to identify academic plagiarism. The tools available to your professors allow them to trace the exact origin of a text on the Web, using just a few words.

In cases where students are unsure whether they are at fault, it is their responsibility to consult the “Writing and Style Guide for University Papers and Assignments.” It can be found at: http://socialsciences.uottawa.ca/undergraduate/writing-style-guide

Persons who have committed or attempted to commit (or have been accomplices to) academic fraud will be penalized. Here are some examples of the academic sanctions, which can be imposed:

• a grade of “F” for the assignment or course in question;
• an additional program requirement of between 3 and 30 credits;
• suspension or expulsion from the Faculty.

For more information, refer to the Student’s Guide to Academic Integrity: http://www.uottawa.ca/vice-president-academic/sites/www.uottawa.ca.vice-president-academic/files/academic-integrity-students-guide.pdf

and Academic Integrity Website (Office of the Vice-President Academic and Provost) http://web5.uottawa.ca/mcs-smc/academicintegrity/home.php