

EC0372H1F Applied Regression Analysis & Empirical Papers - Fall 2017

Section L0101 – Instructor : Patrick Blanchenay

This version: 2017-09-10

[Key Information](#)

[Description](#)

[Contact information](#)

[Course Prerequisite](#)

[Learning Outcomes](#)

[Textbook \(required\) and Readings](#)

[Lectures and tutorials](#)

[Lectures](#)

[Tutorials](#)

[Stata \(required\)](#)

[Evaluation](#)

[Mid-term Test and Final Exam](#)

[Assignments](#)

[Missed term work](#)

[Calendar](#)

[Student Well-Being and Academic Accommodations](#)

[Well-Being](#)

[Ongoing Learning Disability or Accommodation](#)

[Requirement](#)

[Accommodations for Religious Observances](#)

[Academic Integrity](#)

[Turnitin.com](#)

[Communication](#)

[Piazza](#)

[Email](#)

Key Information

Section	Lecture	Tutorial
L0101	Wed, 4-6pm, in VC 215	Fri, noon-2pm, in VC 215

Course site: Portal (all announcements and material)

Piazza:

<http://piazza.com/utoronto.ca/fall2017/eco372h1/home>

Communication: see [Communication](#) below

Instructor: Patrick Blanchenay

Office hours: Wednesdays 2.30-3.30pm in room GE 352 (150 St-George st); rescheduling on Portal.

TA: *to be announced*

All announcements will be made using Portal. All material will be posted on Portal.

Description

EC0372 Applied Regression Analysis and Empirical Papers is an intermediate level course in econometrics for students at the University of Toronto (St-George campus). Its goal is to equip students with a modern approach to econometrics, focussing on using data to answer causal questions. Students will learn about different empirical techniques that economists use to do so; they will also learn about applications of these techniques in academic research. Students will also put these techniques in practice, gain familiarity with STATA, one of the most widespread statistics software in economics.

Contact information

Instructor: Patrick Blanchenay

Email: patrick.blanchenay@utoronto.ca (please see Email policy below)

Office hours: Wednesdays 2.30-3.30pm in room GE 352.

TA: Marc-Antoine Schmidt (ma.schmidt@mail.utoronto.ca)

Office hour: *TBA*

Course Prerequisite

The course prerequisites and exclusions are listed here: <https://fas.calendar.utoronto.ca/course/eco372h1>. I cannot waive prerequisites. An administrator will remove anyone missing prerequisites.

Learning Outcomes

1. Understand the notion of causality, and its importance in empirical research.
2. Identify and compare five strategies that can be used to answer causal questions empirically: random assignment, regressions, instrumental variables, regression discontinuity design, and difference-in-difference.
3. Clearly articulate each method's benefits and limitations.
4. Become familiar with empirical papers that have used these methods to answer questions causally in various fields of economics.
5. Use your understanding of the methods to assess the validity and quality of empirical studies.
6. Learn and practice how to apply these methods using actual datasets, with hands-on use of statistical software STATA.

Textbook (required) and Readings

The required textbook is *Mastering 'Metrics* by Angrist & Pischke (Princeton University Press, ISBN: 978-0-691-15284-4). It is available at UofT Bookstore, as well as on [Amazon](#), [Indigo](#) and many other online platforms. There are copies available at [UofT libraries](#), but I strongly recommend that you buy your own copy. Not only is it an engaging and accessible book, it is also one that can stay useful for a lifetime (even if you opt for a career outside academia).

The course will follow the textbook pretty closely; ahead of each lecture, I will post the required readings, which will include parts of the book, and additional readings (typically research papers) that I will upload to Portal.

All readings are examinable, and you should read the material before each lecture and come prepared to lecture. First, you will not be able to follow the lectures if you do not do the readings ahead. Second, regular work is much more efficient than last-minute cramming.

Lectures and tutorials

The course is built on weekly 2-hour lectures, and tutorials (see Schedule section below).

Lectures

Before each lecture, you are expected to do the required readings. Readings will usually be taken from the textbook, but may occasionally come from additional sources.

Tutorials

There are two one-hour tutorials that you can choose from: Fridays 12-1pm and 1-2pm. (If attendance becomes unbalanced between these two tutorials, I might have to assign students to one.) Each tutorial will address material seen in the previous lecture, and is an opportunity to discuss readings and put to practice the techniques seen in class with hands-on Stata experience.

Note that the midterm test will take two hours, during tutorial time (see [Calendar](#)).

Stata (required)

One objective of the course is to get students to perform analyses using statistical software. Some tutorials will provide hands-on experience to Stata, one of the most widely used statistics software in the world. Each student is expected to come with their own laptop, or share with another student.

Stata is a proprietary commercial software, available on Windows, macOS and Linux. It comes in several “flavours” of increasing memory capacity, but for the purpose of this course, the simplest Stata/IC is sufficient. [A 6-month license to Stata/IC for students costs 45 USD](#). (You are free to buy a more expensive flavour or license but it is unnecessary for this course. Do not buy Small Stata.) If you already have Stata version 12 or above, you do not need to buy the latest version, as most commands we will use haven’t changed.

The problem sets and assignments will require some statistical analyses. For statistical analyses, you are encouraged to use Stata using a script (do-file). If you *already* have significant experience with R, email me to ask authorization to use it in the course; you will be asked to document your experience (see [Email](#) section).

Evaluation

Evaluation for the course will be a mix of tests and assignments. The breakdown is as follows. The final course grade will be rounded to the nearest integer, with no exception.

Evaluation	Date	Percentage of final grade
Mid-term Test	Friday, Nov 3rd 2017	Total: 70% (Highest grade: 40% Lowest grade: 30%)
Final Exam	TBD by A&S	
Assignments (3)		30% (10% each)

Mid-term Test and Final Exam

For the term test and the exam, bring your TCard, pencils, erasers, and a non-programmable calculator.

All sections write the same cumulative final exam. For some tests and the final exam, one or more questions (possibly with multiple parts) is planned to require a longer written answer where you interpret and assess quantitative results (e.g. tables, figures, STATA output, etc.).

Tests are scanned and marked using Crowdmark; this means that you can write using pencil and eraser if you prefer. During the test you must show your student ID and sign the “signup sheet”. Stay seated until all tests have been collected and counted. To avoid disruption, you cannot leave the room in the last 15 minutes.

The midterm test and exam begin at the official start time. You must be in the exam room no later than 10 minutes *before* official start time. You will not be given extra time if you are late.

During the test you must show your student ID and sign the “signup sheet”. Stay seated until all tests have been collected and counted. You cannot leave the room in the last 10 minutes.

Assignments

There are three assignments to hand in. These exercises involve a mix of algebra, questions on research articles, performing statistical analyses and writing about your analysis in a clear rigorous way. You will be graded on the quality of your answers, with a big emphasis on clarity.

For every assignment, you will be asked to submit two documents:

- a PDF containing the answers to your questions, with the adequate explanations and interpretations
- the code (do-file) that you used for the analysis, duly commented (instructions will be posted on Portal).

You will have to upload these documents before the deadline, both on Portal, and on TurnItIn, a plagiarism detection software (see section on [Turnitin.com](https://www.turnitin.com)).

Missed term work¹

You are expected to complete all required work as scheduled in the [Evaluation](#) section.

Assignments are posted well in advance, and it is your responsibility to ensure adequate time to complete the work and deal with any issues, including technical issues. Assignments are considered submitted by the time they have been uploaded *in the correct format* to both Portal and TurnItIn. Assignments that are submitted late will suffer a penalty of 10 points per day of lateness, starting immediately at the deadline.

A grade of zero will be given to students who do not write the exam, unless an appropriate and convincing note is received within one week of the missed test (explaining why the test was missed).

- Accommodations for missed exams will only be made based on legitimate medical reasons or acute emergencies.
- An email notice must be sent to me on the day of the exam.**

¹ This section applies to *term* work. Any accommodation for the final examination requires a student to formally petition A&S: see http://www.artsandscience.utoronto.ca/ofr/calendar/Rules_&_Regulations.html

- ❑ Original legitimate supporting documents of absence are required (within one week). Scanned, copied, or emailed documents will not be accepted.
- ❑ When a student misses the exam for medical reasons, he or she shall provide an original copy of a fully completed University of Toronto official "Verification of Student Illness or Injury" form. The certificate needs to be completed by a qualified medical doctor whose OHIP number must be provided. You can download the form from <http://www.illnessverification.utoronto.ca>
- ❑ It is by the University policy that there are no “make-up exams” for “make-up exams”

If you anticipate any reason why you should be unable to complete an assignment or the midterm test (e.g. international sports competition), you should contact me well in advance. It is a necessary (but not sufficient) condition to get an accomodation.

For ongoing injury, illness, or personal/family problems **you must contact your College Registrar immediately.** For any extraordinary circumstances, I will consider whether accommodations can still meet all course requirements or whether the student must be advised to drop the course and consider retaking it when able to complete required work. Any extraordinary accommodations are at the sole discretion of the instructor and may involve a cumulative open-ended make-up test and/or may be contingent on performance on other term work and the final exam. To preserve fairness with other students, any extra work due to accomodations (make-up test or other) would take into account the extra preparation time and be graded accordingly.

Calendar

Week starting	Lecture Date	Topic	Notes
2017/09/04		<i>No lecture</i>	
2017/09/11	Wed 13th Sep 2017	Causality and Regression Review	
2017/09/18	Wed 20th Sep 2017	Random Assignment	
2017/09/25	Wed 27th Sep 2017	Random Assignment	
2017/10/02	Wed 4th Oct 2017	Regression	Assignment 01: Friday 6th October, noon
2017/10/09	Wed 11th Oct 2017	Regression	
2017/10/16	Wed 18th Oct 2017	Regression	
2017/10/23	Wed 25th Oct 2017	Instrumental Variables	
2017/10/30	Wed 1st Nov 2017	Instrumental Variables	Midterm test: Friday 3rd Nov, noon
2017/11/06	<i>Reading week</i>	<i>No lecture</i>	<i>Reading week</i>
2017/11/13	Wed 15th Nov 2017	Diff-in-Diff	Assignment 2: Monday 13th Nov, noon

2017/11/20	Wed 22th Nov 2017	Diff-in-Diff	
2017/11/27	Wed 29th Nov 2017	Regression Discontinuity Design	Assignment 3: Friday 1st Dec, noon
2017/12/04	Wed 6th Dec 2017	Matching	

The due dates are definitive, but topics might be adjusted; all announcements will be made on Portal.

Student Well-Being and Academic Accommodations

Well-Being

University of Toronto aims at giving you an enriching learning experience, and has a number of resources to help you stay healthy and be well: <http://studentlife.utoronto.ca/bewell>

However, sometimes things do not go as planned. **In case of emergency, call 911.** For ongoing injury, illness, or personal/family problems, or if you feel you are falling behind in your courses, you must contact your [College Registrar](#) immediately. The earlier you do, the easier it is to find solutions.

There are also a number of resources in case you are feeling distressed:

<http://studentlife.utoronto.ca/feeling-distressed>

Once again, the earlier you reach out, the easier it is to remedy the situation and find solutions. Do not wait until the end of the academic year.

Ongoing Learning Disability or Accommodation Requirement

Students with diverse learning styles and needs are welcome in this course. If you have an ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) (<http://accessibility.utoronto.ca>) **at the beginning of the academic year.** (Without registration, you will not be able to verify your situation with your instructors, and instructors will not be advised about your accommodation needs.) AS will then assess your medical situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your condition with any instructor, and your instructors will not reveal that you are registered with AS.

For more information on services and resources available to instructors and students, please contact Tanya Lewis, Director, Director of Academic Success and Accessibility Services, at (416) 978-6268; tanya.lewis@utoronto.ca. Accessibility services: <http://studentlife.utoronto.ca/as/>

Accommodations for Religious Observances

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of backgrounds, cultural traditions, and spiritual beliefs. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity (like a test) due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

Academic Integrity

All students, faculty and staff are expected to follow the University's guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments, citing and using source material appropriately, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts. Plagiarism, representing someone else's words as your own or submitting work that you have previously submitted for marks in another class or program, is a serious offence that can result in sanctions. Speak to me or your TA for advice on anything that you find unclear. Also, see the U of T writing support website at <http://www.utoronto.ca/writing>. Consult the Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) for a complete outline of the University's policy and expectations

Potential offences include, but are not limited to:

- In papers and assignments:
 - Using someone else's ideas or words without appropriate acknowledgement. This includes verbatim copying of any lecture notes distributed by the instructor.
 - Submitting your own work in more than one course without the permission of the instructor.
 - Making up sources or facts.
 - Obtaining or providing unauthorized assistance on any assignment.
- On tests and exams:
 - Using or possessing unauthorized aids, including smartphones.
 - Looking at someone else's answers during an exam or test.
 - Misrepresenting your identity.
- In academic work:
 - Falsifying institutional documents or grades.
 - Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes

I do encourage you to pay close attention to this section on Perils and Pitfalls : <http://academicintegrity.utoronto.ca/perils-and-pitfalls> and Smart Strategies: <http://academicintegrity.utoronto.ca/smart-strategies>

Turnitin.com

Normally, students will be required to submit their course assignments to Turnitin.com for review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

Communication

Piazza

We use Piazza (<https://piazza.com/utoronto.ca/fall2017/eco372h1/home>) to facilitate communication. To register, go to : <https://piazza.com/utoronto.ca/fall2017/eco372h1>

The TA and I periodically check Piazza to ensure proper usage, flag some postings, and possibly answer some questions. However, Piazza's emphasis is on student-to-student Q&A. Piazza is a complement to face-to-face interactions in office hours, class, TA tutorials / aid centres, and study groups. Piazza is a substitute for e-mail.

Email

E-mail is not an appropriate forum for discussing details, which is why we have set aside office hours. That said, email can be helpful on occasion, and within limits and we will try to reply to email within 24 hours (except weekends) provided your question(s) can be answered with a one or two sentence answer.

We won't answer questions about information on the Portal page (for example: test dates) nor questions about grades. We strongly recommend using UToronto email address (University policy stipulates a preference for U of T email addresses). Always identify yourself in your email (include your ROSI name if it differs from the name you usually use) and please do not send attachments and do not submit term work by email. **Please always include [ECO372] in the title of any email. Emails that do not include this will be ignored.**

Email checklist:

- Your email is sent from your University address.
- Title includes "[ECO372]" followed by the subject of the email.
- Your email does not contain attachment, unless I had specifically asked you to send something.
- Your signature includes both the name you are usually addressed by, and your ROSI name if it differs from the name you go by.