

# ECO220 (Introduction to Data Analysis and Applied Econometrics)

Tentative Course Outline for Section L0201, Summer 2022

## 1 Instructor Information

**Instructor:** Quinlan Lee

E-mail: qt.lee [at] mail.utoronto.ca

Lectures: Mondays and Wednesdays [1PM - 3PM] at LM162

Office: GE3

Office Hours: Mondays [10AM - 11AM], Wednesdays [3PM - 4PM]

**Tutorial Teaching Assistant:** Joon Hwan Cho

E-mail: joonhwan.cho [at] mail.utoronto.ca

Tutorials: Fridays [10AM - 12PM] at LM162

Office: GE80

Office Hours: Fridays [12:30PM - 1:30PM]

**Grading TAs:** Marc-Antoine Chatelain, John Cairncross, Etienne Masson-Makdissi

## 2 Course Information

In this course, I will present a comprehensive overview of econometric methodology and data analysis. The main goal I want to achieve is to develop your ability to answer and investigate economic questions using empirical methods. I also intend on showing you some of the more technical side of things and foster your foundation for statistical theory and modelling. Whether you're interested in working in the industry or pursuing a career in academia, the idea is to get you thinking about data in the right way. Ideally, by the end of the course, you should feel comfortable interpreting data and presenting your analysis/findings to others. [Click here](#) for a more formal description of the course, as well as the pre-requisites. It is your responsibility to ensure that you meet them - you will eventually be dropped from the course by the university itself. Note that I do not have the authority to make overrides for enrollment under any circumstances.

**Lecture Delivery Format:** The lectures will be held in-person for the duration of the term on Mondays and Wednesdays [1PM - 3PM] at LM162. In the event that the health situation in Toronto (or the world in general) changes over the summer, we may be forced to switch to an online synchronous schedule, where lectures will be held over Zoom in the regular time slot. I will communicate any changes on Quercus.

**Textbook and Notes:** The textbook recommended for this course will be Business Statistics by Sharpe, De Veaux, Velleman and Wright (Canadian 4th edition). What I teach in class will follow this book loosely, and I will try my best to let you know what chapters I am referencing when delivering lectures. In the class I will use a combination of slides and written notes on the chalkboard.

I will provide the slides in advance, but they tend to contain summaries of what I am discussing and not sufficient for understanding all the material required for exams. The written notes and lecture discussion is more important, but I will not be posting these notes (mainly because they will be written on the chalkboard) or recording what I say in class. So if you are unable to attend a class, please ask your classmates to help you catch up on the missed content.

**Tutorials and Software:** The tutorials are designed to help you with the practice problems for tests and introduce you to software that is relevant for the empirical assignment. We will use R in this course, which is a free statistical programming language. I've personally used this language for a long time, and I don't think its too difficult to learn. Both myself and the TA are more than happy to help you, especially if you haven't programmed before. We will also make use of the free companion interface, R-Studio, alongside R to enhance our coding experience.

### 3 Assessments and Grade Breakdown

#### Grade Breakdown:

Assessment	Weight	Assessment Date/Due Date
Empirical Assignment 1	5%	July 4th, 2022
Empirical Assignment 2	10%	August 15th, 2022
Term Test 1	12.5%	May 25th, 2022
Term Test 2	12.5%	June 13th, 2022
Term Test 3	12.5%	July 11th, 2022
Term Test 4	12.5%	August 3rd, 2022
Final Examination	35%	To be announced.
Survey Bonus	To be determined	To be announced.

**Tests:** Each test will cover material up to and including the lecture before the test. The tests will not be "cumulative" in the sense that I will not ask you concepts explicitly from other term tests, but you will find that knowledge will build up throughout the course.

**Final Exam:** The final exam will be cumulative and everything you learned in the course will be fair game. All sections of ECO220 this term will write a common exam. Formula sheets will be uploaded on Quercus and will be provided on the tests and the final exams.

**Empirical Assignment:** There will be two empirical assignments which will cover the software techniques taught in the tutorials, and give you an opportunity to work with real data. Both assignments must be completed in R, and you need to submit: (1) An .R file containing all the code you used to complete the assignment; (2) A PDF file containing the output and relevant discussion for each question.

**Survey Bonus:** A group of my fellow PhD students are conducting research and would like to survey members of this class. Your participation is **voluntary**. As an incentive, you can receive up to [To be determined] to your final grade if you choose to participate. On the first day of class, a representative conducting the study will provide further details. Please note you cannot get more than 100% in the course.

## 4 Other Important Things

**E-mails:** I ask that your e-mails have (ECO220) in the subject line so I can quickly filter and identify that a student in the class is e-mailing me. You should also use your official UofT e-mail. Usually I can reply to your e-mail within 3 days, but if I forget or just missed it, feel free to e-mail me again. You can ask me anything in e-mails but sometimes it's just easier to join me in office hours if you have a complex question that requires intense derivations.

**Missing a Test or Late Assignment:** If you miss a test due to a valid reason, the weight of it will be shifted to the final examination. If you miss a test due to an invalid reason, then you will receive a grade of 0. If your assignment is submitted late, the penalty is 20% per day (including weekends) up until the 5th day, when you will receive a score of 0. If you have a valid reason, the penalty can be waived at my discretion. What is a "valid reason"? In general, any health issue or personal emergency are considered valid reasons for missing a test or handing in your assignment late. If this happens to you, please make a formal declaration on ACORN (see this link - scroll down to Absence Declaration for details) and let me know that you have done so (you should be able to save a pdf of your completed declaration form). Please only use this form for true health issues or emergencies. You should not be using it if you are just going on vacation, woke up late or didn't study (or some other clearly not valid reason). Only a completed declaration of absence on ACORN will be accepted as a "valid" excuse to miss a test. If you miss more than one term test, your final exam can be worth 60% or more. This makes your final grade depend heavily on just one assessment. From my own experiences as an undergrad, this is a very challenging position to be in, so if you find yourself unable to write more than one test, I suggest reaching out to your college registrar for guidance, or speaking to me about your situation.

**Missing the Final Exam:** If you miss the final exam for whatever reason, the procedure is much more formal. You need to submit a petition to the Faculty of Arts and Science for a deferred final exam. I have no say in the result of this petition, and there's some paper work involved. Please first contact me via e-mail if this happens to you, then consult this link for more information on the petition process.

**Appealing a Grade:** After your tests or assignments are returned, you should check it to make sure that the grades are added properly. If you find calculation errors, you can e-mail me directly and I will adjust your grade (not a re-mark). On the other hand, if you want to appeal the grading itself (i.e. you disagree with the TA's marking), I will re-mark the entire question and your grade could go up or down after the review. For this latter case, you have one week after the assessment is returned to request a review of it. Please e-mail me and not the TAs for remarking requests.

**Cheating or Academic Dishonesty:** Don't cheat or commit academic offenses; it's not worth it. You are allowed to collaborate on the empirical assignment by the way - in fact I would like to encourage group work. But don't have one person doing all of it and just having others copy. If you cheat or commit an academic offense, I am obligated to report it to the relevant university authority, and it could negatively affect your academic record. Everything you need to know about academic integrity is right here.

**Official University Statement on use of Plagiarism Detection Software:** “Normally, students will be required to submit their course essays to the University’s plagiarism detection tool for a 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 tool’s reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of this tool are described on the Centre for Teaching Support & Innovation web site”. For this course, we will use the plagiarism detection software for the empirical assignments.

**Recording, Photography and Sharing Course Material:** In general you shouldn’t be recording the lecture unless you ask me for explicit consent to do so. Some students may need to record the lecture for accessibility reasons, and I am happy to accommodate, but you will have to register for it (see below). Under no circumstances should you publish any of the course material online or distribute it to others outside of the class. This is an infringement of copyright.

**Accommodations:** Some students may require special accommodation on assessments for a wide range of reasons. I am very happy to provide those accommodations to you, but you will have to register for them formally. For example, you can click [here](#) to learn about religious accommodations, or [here](#) to learn about accessibility services. From my understanding, it takes time for accommodations to be processed, so the sooner you submit the paperwork, the better!

**Equity Statement:** The equity statement of our university can be found [here](#). In short, it is everyone’s responsibility to foster a positive, respectful and welcoming environment for all. As the instructor, I will do my best to ensure our learning environment is inclusive so that all our students can feel safe and comfortable being a member of our class.

**If there is anything else that you find missing from the syllabus or unclear, please e-mail me and let me know!**