

# ECON 257D2: Honors Statistics

**Instructor: Saraswata Chaudhuri**

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**Lecture: Mon, Wed 11:35 – 12:55 (Zoom)**

**Office Hours: Mon, Wed 9:30 – 10:30 (Zoom)**

**Teaching Assistant: Gabriel Rodriguez Rondon**

## **1. Course Objective:**

ECON 257 is the first course in Statistics for the Honors students in the economics department. ECON 257D2 is offered in the winter semester and follows ECON 257D1. The objective is to provide the basic theory of probability and statistics necessary as a prerequisite to all other undergraduate Honors courses. Students should also develop skills in reasoning about probabilistic phenomena, and be able to carry out and evaluate statistical studies of a number of standard types.

I want to emphasize that ECON 257D is not a course in economics or econometrics. Rather, as the name of course says, ECON 257D is a course in statistics. It is designed to teach you the statistical tools that will help you to follow the actual course in econometrics, i.e., ECON 468 (Honors Econometrics), that you will take in the next academic year. Therefore, please set your expectations accordingly and do the hard work for ECON 257D without worrying about its apparent lack of connection with the other courses in economics that you have taken or are taking at this moment. It will pay off. Good luck!

**N.B.:** You may not be able to get credit for this course if you take or have taken other statistics courses. Be sure to check the 'Course Overlap' section under 'Faculty Degree Requirements' in the Arts or Science sections of the Calendar.

## **2. Academic Integrity:**

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see [www.mcgill.ca/integrity](http://www.mcgill.ca/integrity) for further information).

## **3. Language of Submission:**

According to Senate regulations, instructors are not permitted to make special arrangements for final exams. Please consult the calendar, section 4.7.2.1, General University Information and Regulations, at

[www.mcgill.ca](http://www.mcgill.ca). In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

#### **4. Extraordinary Circumstances Statement:**

In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

#### **5. Copyright of lectures Statement:**

All slides, video recordings, lecture notes, etc. remain the instructor's intellectual property. As such, you may use these only for purposes of your own learning (and research, with proper referencing/citation). You are not permitted to disseminate or share these materials; doing so may violate the instructor's intellectual property rights and could be cause for disciplinary action.

#### **6. Lecture/Conference/Seminar Recording Statement:**

By enrolling in a remote course, you accept that fixed sessions will be recorded. You must consent to being recorded if you attend a lecture or participate in a component of a course that is being recorded. You will be notified through a pop-up box in Zoom if a lecture or portion of a class is being recorded. If you are not comfortable being in a class that is recorded, you may decide to not take part by logging off Zoom. Students who log off will be able to later watch the video recording in MyCourses.

For pedagogical reasons and for the enrichment of the experience of all students, attendance may be monitored and/or active participation may be expected or required during fixed (synchronous) class time. As such, you may be asked to turn on your camera and audio. If you do not have the necessary resources (e.g., adequate Internet bandwidth or equipment) to do so, inform your instructor at the beginning of term so appropriate accommodations can be made.

In addition to the recording of your image and voice, your name (or preferred name) may be displayed on screen, and your instructor may call your name during the lecture. As such, this personal information will be disclosed to classmates, whether during the lecture or in viewing the recording. By remaining in classes that are being recorded, you accept that personal information of this kind may be disclosed to others, whether during the lecture or when viewing the recording.

#### **7. Etiquette Statement:**

The University recognizes the importance of maintaining teaching spaces that are respectful and inclusive for all involved. To this end, offensive, violent, or harmful language arising in contexts including the following may be cause for disciplinary action:

1. Username (use only your legal or preferred name)
2. Visual backgrounds

### 3. "Chat" boxes

To maintain a clear and uninterrupted learning space for all, you should keep your microphone muted throughout your class, unless invited by the instructor to speak. You should follow instructor's directions about the use of the chat function on remote learning platforms.

### 8. Evaluation:

Evaluation is planned as follows (percentages are of the grade for the term, which will be one half of the full-year grade):

The first term will represent half of the overall grade for the course.

The second, i.e., term will represent the other half of the overall grade. The grade for the second term will be based on:

- (a) Homework assignments: 25%
- (b) Midterm examination (late February): 25%
- (c) Final examination (April): 50%

Similar to the first term, the midterm examination is optional and there is no makeup midterm examination. If the midterm is submitted, the grade will be used whether or not it brings up your mark; if you write it and hand it in, it will count. But you can choose not to write it or hand it in, with no penalty and then the 25% weight that the midterm carries will be transferred to the final examination which will then count for  $50\% + 25\% = 75\%$  of the grade for the second term.

Note that the final (April) examination for the course, while emphasizing second-term material, may include first-term material at my discretion because this is a cumulative course and material from all parts of the course are examinable on the final.

A numerical grade will be computed for each term. The grade for the year will be the equally-weighted average of the two individual term grades. A final letter grade will be obtained from the overall numerical grade. Any letter grades assigned at intermediate stages are for information only; computations will be based on the underlying numerical quantities. Professor Galbraith and I formulate final grades at the end of the year, and do any rounding-off one time only, then.

### 9. Deferred and supplemental examinations:

The supplemental examination for this course, which will be held in August 2021 in accordance with University rules, is for the entire course taken as a whole. That supplemental examination mark replaces all evaluation in the course for those who take it; that is, the supplemental examination is 100% of the supplemental grade.

If the student has not taken the October/November and/or December examinations in ECON 257D1 then the weights for those examinations will be transferred to the final examination following the rule specified in the course outline for ECON 257D1.

## **10. Transfers from Honours to Major program:**

Transfers from Honours to Major are routine, although this is an unusual feature within the University: these can be done after the add/drop period. There are two time windows when transfers are permitted. Window 1, up to the end of the week following the mid-term examination (in October or early November, whichever it turns out to be). Window 2, during the January add/drop period. After the end of window 2, transfer to 227 is not possible.

If you transfer into 227, the grade will be based entirely on work in that course. The interim grade from 257 will not be used. The instructor in Econ 227 will determine the weights given to different elements of the work in that course. Note that this is not necessarily the same arrangement that is used for the microeconomics transfer 250-230; check the Econ 250 course outline for the arrangement that will be made in that case.

Note also that the coverage of Econ 227 and 257 is not identical; students who transfer must check carefully to be sure that they are familiar with all of the material covered in 227 before the transfer. This will of course be particularly challenging for students who transfer in January.

In the event that you decide to transfer, be sure to speak with advisors in the Econ department. Lists of advisors for different programs are posted near the fourth-floor office in Leacock. [During the present remote-teaching period, arrangements will have to change, but there will be some mechanism for consulting an advisor.]

## **11. Office hours:**

Mon, Wed. The TA will hold some tutorial or office hours as well, to be determined, and he will contact you directly with the information. This term, these office hours and tutorials will be held by Zoom. I will announce details as we go along and develop experience with this.

## **11. Reading materials:**

The textbook for this course is: **Statistics for Business and Economics** (8<sup>th</sup> edition) by Paul Newbold, William Carlson and Betty Thorne.

My lectures will be based on the lecture-slides that come with this textbook. The files are named **newbold\_slides\_ch01.pdf**, **newbold\_slides\_ch02.pdf**, etc. and can be found in the folder named **Lecture Slides** on the class website. In addition, I will upload the additional stuff (practice problems) and explanations as and when necessary. I believe that the above materials should be enough for your reference for the exams and otherwise.

## 12. Course Outline (tentative):

We will begin the semester by doing a review of the course content of ECON 257D1. This review will last for two weeks, i.e., four lectures, and you should feel free to point out specific materials that need to be reviewed. My goal for this review is to go over the materials from **Chapters 3-8** of the textbook that are going to be more relevant for the actual material that we wish to cover in ECON 257D2. I do not expect you to read all these chapters from the textbook thoroughly at this point (you must have read them at least once last semester).

In the rest of the semester, we will try our best to cover the remaining chapters of the textbook. While this is the goal, I understand that this may not be feasible for various reasons. Nevertheless, here is the tentative plan.

Week	Target	
Week 1: Jan 11 and Jan 13	Review: Chapters 3-6	
Week 2: Jan 18 and Jan 20	Review: Chapters 7-8	
Week 3: Jan 25 and Jan 27	Chapter 9	
Week 4: Feb 1 and Feb 3	Chapter 10	
Week 5: Feb 8 and Feb 10	Chapter 11	
Week 6: Feb 15 and Feb 17	Chapter 12	
Week 7:	Feb 22	Review of Chapters 9-12
	<b>Feb 24</b>	<b>Midterm based on Chapters 3-12</b> (Chapters 7-12 are more important for the midterm)
Week 8: Mar 1 and Mar 3	Study break (no classes)	
Week 9: Mar 8 and Mar 10	Chapter 13	
Week 10: Mar 15 and Mar 17	Chapter 14	
Week 11: Mar 22 and Mar 24	Chapter 15	
Week 12: Mar 29 and Mar 31	Chapter 16	

Week 13:	Apr 5	Whatever important is left from Chapters 13-16
	Apr 7	Chapter 17
Week 14: Apr 12 and Apr 14		Review of Chapters 9-17

### 13. Learning Outcomes:

By the end of the academic year, I would expect each student to be completely comfortable with the materials at the level of our textbook.

### 14. Assignment Turn in Policy:

I will not accept late submission of assignments. Of course, you are welcome to submit them early. Given our remote lectures this semester, you are expected to turn in assignments electronically on myCourses. The TA will manage and grade the assignments. So, please ask for instruction from the TA if you are unclear on how to submit them on myCourses.

There will be two rather long homework assignments.

**(a) HW 1** will be based on Chapters 7-12 (but will use concepts from Chapters 3-6). It will be assigned around Jan 20 and will be **due on Feb 24**. It is a good idea to keep solving the problems as and when we cover the material for those problems. This assignment is meant to give you practice for the midterm.

**(b) HW 2** will be based on Chapters 13-16. It will be assigned around Mar 5 and will be **due on Apr 7**. It is a good idea to keep solving the problems as and when we cover the material for those problems. This assignment is meant to give you practice for the final exam.