# York University Faculty of Liberal Arts & Professional Studies Department of Economics

## AP/ECON 2500 3.0 M Introductory Statistics for Economists I

Winter 2022 Course Outline

## **Course Instructor Contact:**

Instructor: David K. Lee, Ph. D.

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Course Consultation Hours: By appointment (In-person or zoom meeting, Zoom connection

information will be available through eclass)

Course Web Site: eclass

## Calendar Course Description / Prerequisite / Co-Requisite:

An introduction to statistical techniques. Topics covered include descriptive statistics and frequency distributions, measures of location and dispersion, random variables, sampling distributions, probability theory and mathematical expectations, the normal distribution, correlation, and the design and interpretation of hypothesis tests. Prerequisites: Grade 12U Advanced Functions or equivalent. Course credit exclusions: AP/ADMS 2320 3.00, AP/POLS 3300 6.00, AP/SOCI 3030 6.00, ES/ENVS 2009 6.00, GL/MATH/MODR 1610 3.00, GL/POLS/SOCI 2610 3.00, GL/PSYC 2530 3.00, HH/KINE 2050 3.00, HH/PSYC 2020 6.00, HH/PSYC 2021 3.00, SC/BIOL 2060 3.00, SC/MATH 2500 3.00, SC/MATH 2565 3.00. Note 1: Acceptable course substitutes are available in the Calendar. Note 2: students who have taken SC/MATH 1131 3.00 may not take AP/ECON 2500 3.00.

#### **Lecture Time and Location**

Lecture: T/R: 4:00 pm – 5:30 pm ACW 006

Note: The first several lectures will be delivered online (Zoom live). Students are required to check the announcement in a timely manner

**Teaching Assistants: TBA** 

## **Organization of the Course**

This course involves formal lectures presented by the course instructor. The classroom technology will be used extensively, such as PowerPoint, or MS word format presentation. There will be extensive usages of the course web site. Reading assignments, practice problems, problem solving, etc., for each lecture session, tutorial sessions or TA availability, etc., will be announced on the course web site.

#### **Technical requirements for taking the course:**

This course is, in principle, a face-to-face lecture in a classroom. However, the Covid-19 situation is still ongoing, the first several lectures will be held online, and some student consultations are expected to take place online, all students taking this course must have the following technical requirements.

A computer with microphone and webcam, and a high speed and reliable internet connection, and/or a smart device with these features. These technical features are required for students in order to fully participate in the course. There are some live information sessions including Q & A that may be conducted through Zoom video conferencing, where students are expected to participate. Also, students may be required to appear on video for exams/tests proctoring purposes. If you are not comfortable with these requirements, you should not enroll in this section of the course.

## Students shall note the following:

- Zoom is hosted on servers in the U.S. This includes recordings done through Zoom.
- If you have privacy concerns about your data, provide only your first name or a nickname when you join a session.
- The system is configured in a way that all participants are automatically notified when a session is being recorded. In other words, a session cannot be recorded without you knowing about it.

Here are some useful links for student computing information, resources and help:

Student Guide to Moodle

Zoom@YorkU Best Practices

Zoom@YorkU User Reference Guide

Computing for Students Website

Student Guide to eLearning at York University

To determine Internet connection and speed, there are online tests, such as **Speedtest**, that can be run.

#### **Required Course Text / Readings**

Moore, David S., McCabe, George P and Bruce Craig, *Introduction to the Practice of Statistics*, 10th Edition, W.H. Freeman and Company, 2021.

## **Evaluation** \*

The grade for this course is composed of the mark received for each of the following components:

| Type of Assessment           | Percent/Weight  | Date        |
|------------------------------|-----------------|-------------|
| Midterm Test I (90 minutes)  | Higher mark 35% | R: Feb 10   |
| Midterm Test II (90 minutes) | Lower mark 15%  | R: Mar 24   |
| Final Exam (180 minutes)     | 50%             | April 12-29 |
| TOTAL                        | 100%            |             |

The following conversions will be used in converting percentage grades to letter grades: 90-100 (A+), 80-89 (A), 75-79 (B+), 70-74 (B), 65-69 (C+), 60-64 (C), 55-59 (D+), 50-54 (D), 40-49 (E), 0-39 (F).

**Problem sets** will be posted in the course web site throughout the semester. Some of them may be solved in class. These problems will not be graded, however, I encourage you to work through them. It will help you understanding the course material and consequently, increase the probability that you will do well in the course. Practice may not always make perfect, but it's a good start.

**Midterm Exams** are in an online format, and the exam schedules are Thursdays February 10th, and March 24th, 2022. The exam site in eclass can be opened at any time from **2pm to 10pm** (8-hour period) on the scheduled dates, and the exam time is given for the total of 120 minutes from the opening time (90 min plus 30 extra min for meeting tech). Students must be available for the exam schedules, even if these differ from the lecture schedule.

### **Deferred Exam Policy:**

There are no makeups for missed midterm exams. Anyone missing the midterm exam will automatically have their final exam reweighted to be worth 100%.

<u>NO multiple deferrals allowed</u>: Students can defer only one of the two exams. If students defer more than one exams, the successive deferred exams will be marked zero.

<u>Deferring the Final Exam</u>: The deferred final exam policy will be applied only for those who completed all of the course requirements but the final exam. Students who do not complete one of the course requirements during the semester MUST attend the regular final exam session to complete the course. If a student were to miss a course requirement during the semester and has to defer the final exam as well then the student may submit a formal petition to the Faculty.

#### **Requesting Deferred Final Exam**

Students will be required to complete a Mach form requesting a deferred exam. For complete instructions for using the Mach form, please go to our website:

https://www.yorku.ca/laps/econ/undergraduate-programs/academic-resources/department-policies/deferred-standing/

The Mach form replaces the Final Exam/Assignment Deferred Standing Agreement (DSA).

A student must submit the form within 5 business days from the final exam date.

## **Tentative Sequence of Topics Covered and the Lecture Schedule**

| Session                   | Topics, Reading and Activity                           |  |
|---------------------------|--|--|
| <b>01</b> T/R (Jan 11/13) | Looking at Data – Distributions: Ch 1                  |  |
| <b>02</b> T/R (Jan 18/20) | Looking at Data – Relationships: Ch 2                  |  |
| <b>03</b> T/R (Jan 25/27) | Producing Data: Ch 3                                   |  |
| <b>04</b> T/R (Feb 1/3)   |  |  |
| 05 R (Feb 10)             | Midterm 1 (90 min + 30 extra min, No class on Tuesday) |  |
| <b>06</b> T/R (Feb 15/17) | Probability: Ch 4                                      |  |
| Reading Week: Feb 19 - 25 |  |  |
| <b>07</b> T/R (Mar 1/3)   | Sampling Distributions: Ch 5                           |  |
| <b>08</b> T/R (Mar 8/10)  | Introduction to Inference: Ch 6                        |  |
| <b>09</b> T/R (Mar 15/17) | Inference for Distributions: Ch 7                      |  |
| 10 R (Mar 24)             | Midterm 2 (90 min + 30 extra min, No class on Tuesday) |  |
|                           | Drop Deadline: Mar 18                                  |  |
| <b>11</b> T/R (Mar 29/31) | Inferences for Proportions: Ch 8,                      |  |
| <b>12</b> T/R (Apr 5/7)   | Analysis of Two-Way Tables: Ch 9                       |  |
|                           | Review   |  |
| Final Exam                | April 12-29  |  |

#### **New Information and Changes:**

The schedule is subject to change –sometimes there are unexpected absences or we bog down on an issue. Check your class notes, or contact me for up-dated work schedules.

It may be very possible to make some adjustments of lectures and/or exams schedules. Students may also have handouts for the topics discussed in the class. It is students' responsibility to be aware of any policy (or schedule change), or to collect handouts from classes. If you miss classes, contact the instructor before or immediate after, and check if there is any policy change or handout distributed.

There is no excuse for not knowing course policies or schedule changes, or for not having handouts.

## **Important Course Information for Students:**

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage; <a href="http://www.yorku.ca/secretariat/policies/index-policies.html/">http://www.yorku.ca/secretariat/policies/index-policies.html/</a>

➤ York's Academic Honesty Policy and Procedures/Academic Integrity Website

Academic Honesty and Integrity: Conduct that violates the ethical or legal standards of the University community or of one's program or specialization is subject to severe penalties. Students are responsible for understanding the nature and consequences of these offences, as contained in the Senate Policy on Academic Honesty, found on the York University Senate WEB page: <a href="http://www.yorku.ca/secretariat/policies/document.php?document=69">http://www.yorku.ca/secretariat/policies/document.php?document=69</a>

- ➤ Ethics Review Process for research involving human participants http://www.yorku.ca/secretariat/policies/document.php?document=94
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities http://www.yorku.ca/secretariat/policies/document.php?document=68
- Student Conduct Standards http://www.yorku.ca/oscr/standards.html
- Religious Observance Accommodation https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs