

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

**AP/ECON 2500 3.0 D**  
**Introductory Statistics for Economists I**  
Fall 2023 Course Outline

**Course Instructor Contact:**

Instructor: David K. Lee, Ph. D.

Office: VH 1129

Email: [dklee@yorku.ca](mailto:dklee@yorku.ca)

Phone: 416-736-2100 Ext.

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 2560 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 (In-person lectures, Records may not be available in principle)**

W 2:30pm – 3:30pm CLH

M 2:30pm – 4:30pm DB0010

**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, so online lecture deliveries can resume at any time, and some student consultations are expected to take place online. The technical features, a computer with microphone and webcam, and a high speed and reliable internet connection, and/or a smart device with these 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.

## **Course Text / Readings (Required)**

*Statistics for Business and Economics, 14th Edition*, James T McClave, P. George Benson, Terry Sincich. 2022, Pearson, ISBN-13: 9780134506593

### **Evaluation \***

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

| Type of Assessment                      | Percent/Weight  |             | Date                |
|-----------------------------------------|-----------------|-------------|---------------------|
|                                         | A               | B           |                     |
| Quizzes (Online)                        | 10%             | 10%         | TBA                 |
| Midterm Exam I (Classroom, 120 minutes) | Higher mark 30% | Higher mark | Sat Oct 14: 2pm-4pm |
| Midterm Exam 2 (Classroom, 120 minutes) | Lower mark 10%  | 20%         | Sat Nov 11: 2pm-4pm |
| Final Exam (Classroom, 180 minutes)     | 50%             | 70%         | Dec 7-20            |
| TOTAL                                   | 100%            | 100%        |                     |
|                                         | Plus Bonus      |             |                     |
| Course Grade = Max {A, B}               |                 |             |                     |

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).

**Please note that** I strongly believe that the best learning experiences occur when there is healthy attendance and discussions in the classroom. Therefore, I have a policy to give some bonus points based on **class attendance and participation (usually no more than 5%)** to encourage attendance and classroom discussion. Feel free to ask any questions or simply make comments on relevant topics at any time.

**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.

### **Quizzes: Online Open-book format**

I will post 3 short quizzes to eclass over the course of the semester. Each quiz is about one hour long and should be completed within the given 12 hours. The best 2 out of 3 quizzes will be counted in your grade. No makeup quizzes are available.

### **No Makeup Midterm**

There are no makeups for missed midterm exams. Anyone missing one midterm exam will automatically have their final exam reweighted to be worth 70%.

### **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/>

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

**Topics, Lectures and Exam Schedules:**

| Session                         | Topic                                                                             | Reading and Activity |
|---------------------------------|-----------------------------------------------------------------------------------|----------------------|
| 01<br>W Sep 6 & M Sep 11        | Statistics, Data, and Statistical Thinking<br>Methods for Describing Sets of Data | Ch 1, 2              |
| 02<br>W Sep 13 & M Sep 18       |                                                                                   |                      |
| 03<br>W Sep 20 & M Sep 25       | Probability                                                                       | Ch 3                 |
| 04<br>W Sep 27 & M Oct 2        | Random Variables and Probability Distributions                                    | Ch 4                 |
| <b>Reading Week: Oct 7 – 13</b> |                                                                                   |                      |
| 05<br>Sat Oct 14: 2pm-4pm       | <b>Midterm 1 (Sessions 1 – 3 Covered)<br/>(Nov 8: Drop Deadline)</b>              |                      |
| 06<br>W Oct 18 & M Oct 23       | Sample Distributions                                                              | Ch 5                 |
| 07<br>W Oct 25 & M Oct 30       | Inferences Based on a Single Sample: Estimation and Confidence Interval           | Ch 6                 |
| 08<br>W Nov 1 & M Nov 6         | Inferences Based on a Single Sample: Tests of Hypotheses                          | Ch 7                 |
| 09<br>Sat Nov 11: 2pm-4pm       | <b>Midterm 2 (Sessions 4, 6, 7 Covered)</b>                                       |                      |
| 10<br>W Nov 15 & M Nov 20       | Inferences Based on Two Samples: Confidence Intervals and Tests of Hypotheses     | Ch 8                 |
| 11<br>W Nov 22 & M Nov 27       | Design of Experiments and Analysis of Variance                                    | Ch 9                 |
| 12<br>M Nov 29 & M Dec 4        | Categorical Data Analysis                                                         | Ch 10                |
| <b>Final Exam: Dec 7-20</b>     |                                                                                   |                      |

**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;

<http://www.yorku.ca/secretariat/policies/index-policies.html/>

- 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: <http://www.yorku.ca/secretariat/policies/document.php?document=69>

- 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>