

## Introductory Statistics for Economists I

AP/ECON 2500 N

WINTER 2025

### COURSE INFORMATION

Course Instructor: David K. Lee, Ph. D.

Phone:

E-mail: [dklee@yorku.ca](mailto:dklee@yorku.ca)

Course Time & Days: TR 10:00-11:30

Class Location: VH A

Course eClass site:

### Instructor Office Hours and Communication Guidelines

Office Location: VH 1129

Office Hours: By appointment (In-person or zoom meeting, zoom connection information will be available through eclass)

### Tutorials, Labs and TA Contact Information

TBA

## Land Acknowledgment

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit, and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region ([LA&PS Land Acknowledgement](#)).

## Course Overview

### Course Description

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.

**Pre-Requisites:** Grade 12U Advanced Functions or equivalent.

**Course Credit Exclusions (CCE):** 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.

## Course Learning Objectives

By the end of this course, students will be able to:

- organize, summarize, and display data in a meaningful way.
- compute various measures of centre, variability, and position of data sets.
- explain the concept of the sampling distribution.
- apply basic rules of probability to calculate likelihoods of random events.
- use appropriate probability distributions to estimate and test hypotheses about parameters of single and multiple populations.
- perform goodness-of-fit tests and analyze cross-tabulated data.

## Course Organization

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.

## Required Course Materials

*Statistics for Business and Economics, 14th Edition*, James T McClave, P. George Benson, Terry Sincich. 2022, Pearson, ISBN-13: 9780134506593. Because this textbook has been around for a long time, students may be able to find used copies. However, older versions may not have the most up-to-date examples or information.

**Cost and availability:** This textbook is available at York bookstore (<https://www.bookstore.yorku.ca>). The digital version costs \$68.

## Technical Requirements

This course is, in principle, a face-to-face lecture in a classroom. However, online lecture deliveries can be delivered, 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 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. If you are not comfortable with these requirements, you should not enroll in this section of the course.

Several platforms will be used in this course (e.g., eClass, Zoom, etc.) where students will interact with the course materials, the course director/TA, as well as with each other.

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

- [Student Guide to eClass](#)
- [Zoom@YorkU Best Practices](#)
- [Zoom@YorkU User Reference Guide](#)
- [eLearning Getting Started \(LA&PS eServices\)](#)
- [Student Guide to Remote and Online Learning](#)

To determine Internet connection and speed, there are online tests, such as [Speedtest](#), that can be run. If you need technical assistance, please consult the [University Information Technology \(UIT\) Student Services](#) web page or write to [askit@yorku.ca](mailto:askit@yorku.ca).

### Course Evaluations

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	
Midterm Exam I (Classroom, 120 minutes)	25%	Higher mark 40%	Sat Feb 8: 10:00-12:00
Midterm Exam 2 (Classroom, 120 minutes)	25%		Sat Mar 15: 10:00-12:00
Final Exam (Classroom, 180 minutes)	50%	60%	Apr 8-25
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	
	<b>Plus Bonus</b>		
<b>Course Grade = Max {A, B}</b>			

**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 on 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 understand 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.

## Missed Tests and Exams

### No Makeup Midterms Offered

There are no makeups for missed midterm exams.

Students must complete at least one of the two midterm exams to avoid being penalized on the final course evaluation.

### 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.

### Grading

The grading scheme for this course conforms to the 9-point system used in undergraduate programs at York University. For a full description of the York grading system, visit the York University [Academic Calendar](#).

Grade	Grade Point	Percent Range	Description
A+	9	90-100	Exceptional
A	8	80-89	Excellent
B+	7	75-79	Very Good
B	6	70-74	Good
C+	5	65-69	Competent
C	4	60-64	Fairly Competent
D+	3	55-59	Passing
D	2	50-54	Marginally Passing
E	1	(marginally below 50%)	Marginally Failing
F	0	(below 50%)	Failing

## Course Schedule

### Important Dates

Explore the York University [Academic Calendar](#) to find a list of important dates, such as class start/end dates, drop deadlines, holidays and more.

### Weekly Course Schedule

Session	Topic	Reading and Activity
01 T/R Jan 7/9	Statistics, Data, and Statistical Thinking Methods for Describing Sets of Data	Ch 1, 2
02 T/R Jan 14/16		
03 T/R Jan 21/23	Probability	Ch 3
04 T/R Jan 28/30	Random Variables and Probability Distributions	Ch 4
05 Sat Feb 8	<b>Midterm 1 (Sessions 1 – 3 Covered) (Mar 14: Drop Deadline)</b>	
06 T/R Feb 11/13	Sample Distributions	Ch 5
<b>Reading Week: Feb 14 – 21</b>		
07 T/R Feb 25/27	Inferences Based on a Single Sample: Estimation and Confidence Interval	Ch 6
08 T/R Mar 4/6	Inferences Based on a Single Sample: Tests of Hypotheses	Ch 7
09 Sat Mar 15	<b>Midterm 2 (Sessions 4, 6, 7 Covered)</b>	
10 T/R Mar 18/20	Inferences Based on Two Samples: Confidence Intervals and Tests of Hypotheses	Ch 8
11 T/R Mar 25/27	Design of Experiments and Analysis of Variance	Ch 9
12 T/R Apr 1/3	Categorical Data Analysis	Ch 10
<b>Final Exam: Apr 8-25</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 to 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 immediately 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.**

## Course Policies

Please review the course policies in this section. All students are expected to familiarize themselves with the following information:

- [Student Rights & Responsibilities](#)
- [Academic Accommodation for Students with Disabilities](#)

## Academic Integrity

Academic integrity is a fundamental and important value of York University. To maintain a fair and honest learning environment, you are responsible for understanding and upholding academic integrity in all courses and academic activities. You are encouraged to connect with reliable [on-campus resources](#) that support your coursework and academic honesty. To better understand the serious consequences of breaching academic honesty policies, familiarize yourself with the [Senate Policy on Academic Conduct](#). You can learn more about upholding academic integrity in your courses by exploring [Guiding Principles for LA&PS](#) and [Academic Integrity for Students](#).

## Generative Artificial Intelligence (GenAI)

Students are not permitted to use generative artificial intelligence (AI) in this course. Submitting any work created (in whole or part) through the use of generative AI tools will be considered a violation of York University's [Senate Policy on Academic Conduct](#). Using AI apps such as ChatGPT, GPT-3, DALL-E, translation software among others to complete academic work **without your instructor's knowledge or permission**, is considered to be a breach of academic honesty. For more information, please review [AI Technology & Academic Integrity: Information for Students](#).

If you're not sure whether using an AI app for your academic work is acceptable, it is recommended that you:

- Carefully review the guidelines for your assessments
- Check for any messages from your instructor on eClass
- Ask your instructor or TA if they are permitting the use of these tools

## Turnitin

To promote academic integrity in this course, students will normally be required to submit their written assignments to Turnitin (via the course's eClass site) for a review of textual similarities and the detection of possible plagiarism. In so doing, students will allow their material to be included as source documents in the Turnitin.com reference database, where they will be used only for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin service are described on the Turnitin.com website. York students may opt out of using Turnitin. If you wish to opt out, you should contact your instructor as soon as possible.

## Accessibility

York University is committed to creating a learning environment which provides equal opportunity to all members of its community. If you anticipate or experience any barriers to learning in this course, please discuss your concerns with your instructor as early as possible. For students with disabilities, contact [Student Accessibility Services](#) to coordinate academic accommodations and services. Accommodations will be communicated to Course Directors through a Letter of Accommodation (LOA). Accommodations for tests/exams normally require three (3) weeks (or 21 days) before the scheduled test/exam to arrange.

## Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community and making reasonable and appropriate [accommodations to adherents for observances of special significance](#). Should any of the dates specified in this syllabus for course examinations, tests, or deadlines conflict with a date of religious significance, please contact the instructor within the first three (3) weeks of class. If the date falls within the formal examination periods, you must complete and submit a [Religious Accommodation for Examination Form](#) at least three (3) weeks before the start of the exam period.

## Intellectual Property

Course materials are designed for use as part of this particular course at York University and are the intellectual property of the instructor unless otherwise stated. Third-party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian copyright law. Students may not publish, post on an Internet site, sell, or otherwise distribute any course materials or work without the instructor's express permission. Course materials should only be used by students enrolled in this course.

Copying this material for distribution (e.g., uploading material to a commercial third-party website) may lead to a charge of misconduct according to York's [Code of Student Rights and](#)

[Responsibilities](#), the [Senate Policy on Academic Conduct](#), and/or legal consequences for copyright violations.

## Student Support and Resources

York University offers a wide range of student supports resources and services, including everything from writing workshops and peer mentorship to wellness support and career guidance. Explore the links below to access these on-campus resources:

- [Academic Advising](#) is available to provide students support and guidance in making academic decisions and goals.
- [Student Accessibility Services](#) are available for support and accessibility accommodation when required.
- [Student Counselling, Health & Wellbeing](#) offers workshops, resources, and counselling to support your academic success.
- [Peer-Assisted Study Sessions \(PASS\) Program](#) provides student study sessions for students to collaborate and enhance their understanding of course content in certain courses.
- [Student Numeracy Assistance Centre at Keele \(SNACK\)](#) supports students in courses involving math, stats, and Excel.
- [The Writing Centre](#) provides multiple avenues of writing-based support including drop-in sessions, one-to-one appointments, a Multilingual Studio, and an Accessibility Specialist.
- [Centre for Indigenous Student Services](#) offers a community space with academic, spiritual, cultural, and physical support, including writing and learning skills programs.
- [ESL Open Learning Centre \(OLC\)](#) supports students with building proficiency in reading, writing, and speaking English.
- [Learning Skills Services](#) provides tips for time management, effective study and learning habits, keeping up with coursework, and other learning-related supports.
- [Learning Commons](#) provides links to supports for time management, writing, study skills, preparing for exams, and other learning-related resources.
- [Roadmap to Student Success](#) provides students with timely and targeted resources to help them achieve academic, personal, and professional success.
- [Office of Student Community Relations \(OSCR\)](#) is responsible for administering the [Code of Student Rights & Responsibilities](#) and provides critical incident support.
- [Peer Mentorship](#) helps students transition through their first year by connecting them with upper-year students. The mentors can help find supports and resources. They also lead a community hub on campus.
- [goSAFE](#) is staffed by York students and can accompany York community members to and from any on-campus location, such as the Village Shuttle pick-up hub, parking lots, bus stops, or residences.

For a full list of academic, wellness, and campus resources visit [Student Support & Resources](#).