

YORK UNIVERSITY

LA & PS
DEPARTMENT OF ECONOMICS

WINTER 2023

AP/ECON 2500.03 M: INTRODUCTORY STATISTICS FOR ECONOMISTS I
TR 16:00-17:30, ROOM: SLH A

Instructor: VASSILIOS BARDIS
Room: DB 2020
Office Hours: TBA;
E-mail: vbardis@yorku.ca
Course Website: On eclass.yorku.ca (available by the first day of class)

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/GEOG 2420 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. PRIOR TO FALL 2009: Course credit exclusions: AK/ADMS 2320 3.00, SC/BIOL 2060 3.00, AK/ECON 3470 3.00, AS/ECON 2500 3.00, ES/ENVS 2010 6.00, AS/SC/GEOG 2420 3.00, AS/KINE 2050 3.00 (Prior to Fall/Winter 2007-08), HH/KINE 2050 3.00, AK/AS/SC/MATH 2560 3.00, AK/AS/SC/MATH 2565 3.00, AS/POLS 3300 6.00, AK/AS/SC/PSYC 2020 6.00 (Prior to Fall/Winter 2007-08), HH/PSYC 2020 6.00, AK/AS/SC/PSYC 2021 3.00 (Prior to Fall/Winter 2007-08), HH/PSYC 2021 3.00, AS/SOCI 3030 6.00.

COURSE DESCRIPTION

The course provides 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.

SOME IMPORTANT DATES

Classes start / end	Jan. 9 / Apr. 10
Last date to add a course without / with permission of instructor	Jan. 22 / Feb. 6
<i>Last date to drop course without receiving a grade</i>	<i>March 17</i>
Course Withdrawal Period (withdraw from a course and receive a "W" on the transcript)	Mar. 18 – Apr. 10
Examination Period	Apr. 12-27
Reading Week	Feb. 18-24
Holiday (University Closed)	April 7

GRADING

The course grade will be based on **online term quizzes** (15%), a **midterm exam** (30%, in person) and a **final exam** (55%, in person). All exams in the course are **in-person**.

The course grade will be calculated as follows. Let Q denote the average of the *best two of four* online quizzes, M denote the midterm exam grade and X denote the final exam grade (each grade out of 100). Then the course grade, Y, will be

$$Y = \max (0.15 Q + 0.3 M + 0.55 X , 0.15Q + 0.85X).$$

Quiz dates and the midterm exam date will be posted on the course website on the first week of classes. There are no deferred quizzes and there is no deferred midterm exam. If the midterm exam is not taken, then the weight is transferred to the final exam. There will a deferred final exam for students who qualify (see below).

The final exam will be comprehensive and will held during the examination period on the date and time scheduled by the University (to be announced). The opportunity to write a deferred exam will be available to students for whom a religious observance coincides with the date of the final exam or who are unable to complete the exam due to reasons beyond their control. If this applies to you, please email me to let me know. (After the date of the final exam, students who did not complete the final exam must request deferred standing by completing the *required mach form*. This information is available on the department website at <https://www.yorku.ca/laps/econ/undergraduate-programs/academic-resources/department-policies/deferred-standing/>

Observance Dates: Students for whom the midterm test date coincides with a religious observance must let me know within the first two week of classes. If there is such a conflict with respect to the final exam, students must complete an 'Examination Accommodation Agreement' soon after the final exam date is published. (This form can be obtained from the Registrar's office.)

Policy on Reappraisal of Term Work: Reappraisal of students' term work should be completed during the course of the term.

Note on Senate Policy on Academic Honesty: Conduct that violates the ethical or legal standards of the University community or of one's program or specialization may result in serious consequences. Students are encouraged to familiarize themselves with the Senate Policy. **Please note that only simple calculators can be used during tests.**

Note on the use of Electronic Devices: All electronic devices must be turned off during class. Audio/visual recordings of any type are *not* allowed.

TEXTBOOKS

There is **no** required textbook. The following textbooks are recommended but optional. Books 2 and 3 are freely available online and the direct links to the PDF versions are given under Links on the course website.

1. Introduction to the Practice of Statistics

Moore, David S., McCabe, George P and Bruce Craig,
Publisher W.H. Freeman and Company

There are many editions of this book. The most recent one is edition 9.

2. Introductory Statistics

Douglas S. Shafer, Zhiyi Zhang, 2012

This book is available on BCcampus OpenEd and can be accessed/downloaded for free.

3. Introductory Business Statistics (Free Online)

Alexander Holmes, Barbara Illowsky, Susan Dean, 2018

This book is made available for free by OpenStax Rice University.

LIST OF TOPICS (A detailed list will be given on the course website)

1. Data, Distributions and Descriptive Statistics
2. Probabilities and Random Variables
3. Random Sampling, Estimation and Inference