Faculty of Liberal Arts and Professional Studies

Department of Economics

YORK U

ECON 2500 (B): Introductory Statistics for Economists I

Course outline (Fall semester, 2025-26)

Instructor

Ilya Archakov
email: iarch@yorku.ca
office: Vari Hall 1140

Schedule

Lectures: Wednesdays, 11:30-14:30 (room R S201)
Office hours: Wednesdays, 16:00 - 17:30 (tentatively)
Midterm: October 29th

Teaching assistant

TBA

Course description

This is an introductory course in statistics. The course will familiarize students with the principles and methods of basic data analysis, fundamental concepts of the probabilty theory, and will cover foundations for statistical inference. The course is intended to help students to achieve a basic statistical literacy and develop "statistical thinking". Students will learn how to conduct empirical analysis using statistical methods, extract and interpret quantitative information from data.

Course organization

There will be a single 170-min class each week. All relevant course materials, as well as course updates, will be uploaded on eClass.

Evaluation

The total final grade (100%) will consist of

- 3 problem sets (15%) [5% + 5% + 5%]
- midterm exam (30%)
- final exam (55%)

Constructive in-class participation (active participation in dicsussions, answering questions, etc.) will be rewarded by adding an extra bonus to the final grade (up to 5%, mostly relevant for the cases with a "border" grade).

Important: there will be no make-ups for the midterm exam (30% weight will be shifted to the final exam, and, in case the midterm is missed, the weight of the final exam will be 85%). Late submissions of the problem sets will be penalized.

Textbooks

- Main textbook: David Diez, Mine Cetinkaya-Rundel, and Christopher Barr, "OpenIntro Statistics", *4th Edition* [pdf version can be freely downloaded at www.openintro.org/book/os/]
- Optional alternatives:
  - Richard D. De Veaux, Paul F. Velleman, David E. Bock, Augustin M. Vukov, and Augustine Wong, "Stats: Data and Models", *4th Canadian Edition, Pearson*
  - David S. Moore, George P. McCabe, Bruce A. Craig , "Introduction to the Practice of Statistics", *10th Edition*

Add/Drop deadlines

Last date to add to the course (with permission of instructor): September 16 (September 23)
Last date to drop the course without receiving a grade: November 4
Course withdrawal period (with grade "W" on transcript): November 5 - December 2

Attendance policy

Attendance is expected, but not strictly mandatory. Constructive in-class participation (active participation in dicsussions, answering questions, etc.) will be rewarded by adding an extra bonus to the final grade (up to 5%, mostly relevant for the cases with a "border" grade). There will be several attendance checks (on random days) which may further increase the bonus grade.

Updates and announcements

Regular course updates and extra announcements are expected to appear on eClass. Please, check regularly for the corresponding updates.

Important: It is students' responsibility to be aware of any policy (or schedule change). If you miss classes, check if any schedule or policy changes were announced.

Course contents and schedule

# of classes	Chapters	Topics	Reading (OpenIntro)
0.5	Introductory class	Course organization, Q&A	
2	Introduction to data	Types of variables, descriptive statistics and visualization of data, relationship between variables	1.1, 1.2, 2
4-5	Probability and random variables	Modeling randomness, probability space; conditional probability and Bayes' Theorem; random variables and probability distributions; Normal distribution	3, 4.1
1	Midterm		
4-5	Foundations for statistical inference	Random sample, sampling error and sampling distribution, the Central Limit Theorem; inference for the proportion (confidence intervals, hypothesis testing); inference for the mean; inference for two samples; A/B testing	1.3, 1.4, 5, 6.1, 6.2, 7.1, 7.2, 7.3
	Final Exam		

Some changes in the schedule are highly possible, as well as minor adjustments of the course content and selected topics.

Exam policy (Midterm and Final)

Both exams are closed book (a single hand written double-sided A4 formula sheet and a basic non-programmable calculator are allowed), independent work is required for all exams. All instances of academic dishonesty in this course will be reported to the appropriate university authorities and can be punishable according to the Senate Policy on Academic Honesty.

You may submit a request to have your term tests re-checked or final exam re-graded. Quiz and midterm re-check requests need to be sent to the instructor or TA within one week of grade release. In your written request, you must identify the questions and the possible errors and/or omissions.

Re-grading of your test will be done in a manner consistent with the rest of the class. A re-check or regrade may result in a raised mark, lowered mark, or no change. In the process, the instructor has the authority to re-grade other questions on the exam if they find it necessary to do so.