York University
Faculty of Liberal Arts and Professional Studies
Department of Economics

AP/ECON 1530 3.0 M: Introductory Mathematical Economics I

Winter 2023 Course Outline

Instructor: Zifan Bi

Email: zifanbi@yorku.ca
Office Hours: MW 4:00-4:30pm; Location: **VH1091**
Classes: MW 2:30-4:00pm; Location: **DB0001**

Teaching Assistant: TBA
Office Hours: TBA
Email: TBA

Course Web Site: https://eclass.yorku.ca/

Prerequisites: Grade 12U Advanced Functions or equivalent

Co-requisite:

AP/ECON 1000 3.00 or AP/ECON 1010 3.00 or equivalent. Strongly recommended completion: high-school calculus or equivalent.

Credit Exclusions:

SC/MATH 1000 3.00, SC/MATH 1013 3.00, SC/MATH 1300 3.00, SC/MATH 1505 6.00, SC/MATH 1513 6.00, SC/MATH 1530 3.00, SC/MATH 1550 6.00, GL/MATH 1930 3.00, GL/MODR 1930 3.00.

Technical requirements for taking the course

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

- Student Guide to eclass
- Zoom@YorkU Best Practices

- Zoom@YorkU User Reference Guide
- Computing for Students Website
- Student Guide to eLearning at York University

Course Description:

This course presents and analyzes a sequence of basic ideas, topics and problems arising in Economics. For each idea/topic/problem relevant mathematical ideas and techniques are recalled and/or derived so as to provide a deeper understanding of the Economic issue and how it can be resolved, if necessary. The notion of Quantity Demanded is first addressed by expressing quantity demanded as a linear function of price where both the slope and intercept embed important Economics ideas. This sequence leads naturally to the notion of Revenue (the product of quantity demanded and price) where nonlinear functions are analyzed using mathematical techniques that include derivatives. This sequence culminates with notions of prices that maximize revenue subject to a given demand function. A large number of such topic sequences involving univariate functions are examined.

Course Learning Objective:

By the end of this course, students should have a solid knowledge of univariate calculus and be able to set up and solve unconstrained and constrained optimization problems with particular emphasis on economic problems.

Course Communication Plan and Office Hours:

My office is VH 1091. Office hours may be done on-line. I encourage students who wish to see me, but who cannot physically attend office hours, to arrange an on-line meeting with me. Regularly check the eClass page for announcements.

Required Text:

Knut Sydsaeter and Peter Hammond, Essential Mathematics for Economic Analysis, Fifth edition (ISBN 9781292074719), Pearson.

The text is available in both hard copy and digital version and can be bought or rent in York University bookstore.

Course outline:

- The course covers Chapter 2-4 and 6-10 of Sydsaeter-Hammond textbook.
- The lecture are mainly based on the textbook, and all additional materials are

included in slides. Therefore, the most priority should be on lecture slides and then the text.

- After the lecture, the slides are available on the eclass course web and it will be the main source of your study.

Evaluation:

The final mark will be based on one midterm test (**Wednesday, Feb. 27, 2:30 PM, 40% of Final Grade**) and a final exam (**Date TBA, 60% of Final Grade**). In the unlikely event that the university substantially changes its current policies regarding public health measures, these proportions may be changed.
There are no makeups for missed in-class tests. Anyone missing the midterm test will automatically have their final exam reweighted to be worth 100%. If a student receives a higher grade on the final exam than on the midterm test, the final exam grade will be worth 100% of the final grade. There will generally be no deferments offered for missed final exams except under very unusual circumstances. Anyone wishing to write a deferred final exam generally will be required to formally petition for such.

Important Dates:

Classes start / end	Jan. 9 - Apr. 10
Examination period	Apr. 12 - 27
Reading week	Feb. 18 - 24
Last date to add a course without/with permission of instructor	Jan. 22 / Feb. 6
Last date to drop a course without receiving a grade	Mar. 17
Course Withdrawal Period (withdraw from a course and receive a grade of "W" on transcript)	Mar. 18 - Ari. 10

Important Information:

The Senate Committee on Curriculum & Academic Standards (CCAS) provides a Student Information Sheet that includes:

- York's Academic Honesty Policy and Procedures / Academic Integrity Web site
- Access/Disability
- Religious Observance Accommodation
- Student Code of Conduct

Additional information:

- Academic Accommodation for Students with Disabilities
- Alternate Exam and Test Scheduling
- Grading Scheme and Feedback Policy

  The Senate Grading Scheme and Feedback Policy stipulates that (a) the grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) be announced, and be available in writing, within the first two weeks of class, and that, (b) under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for 'full year' courses offered in the Fall/Winter Term be received by students in all courses prior to the final withdrawal date from a course without receiving a grade.

- Deferred Exam Request

  Students are not required to submit an Attending Physician Statement or medical document for deferring a final exam impacted by the COVID-19 situation.

- Final course grades may be adjusted to confirm to Program or Faculty grade distribution profiles.