

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

AP/ECON 1530 3.0 A
Introductory Mathematical Economics I
Summer 2025
Course Outline

1. Course Instructor Contact:

Instructor: Vassilios Bardis
Email: vbardis@yorku.ca
Office Hours: TBA
Course website: On *eclass.yorku.ca*
Class Time: TR 14:30-17:30 in CLH D

2. Course Description (prerequisites/co-requisites):

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.

Prerequisite: Grade 12U Advanced Functions or equivalent.

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

Course 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/MODR 1930 3.00. Note: Acceptable course substitutes are available in the Calendar.

3. Some Important Dates

Classes start / end	May 5 / June 16
Examination Period	June 18 - 20
Last date to add a course without / with permission of instructor	May 12 / May 20
Last date to drop course without receiving a grade	June 2
Course Withdrawal Period (withdraw from a course and receive a "W" on the transcript)	June 3 – June 16
Reading Week	N/A

4. Grading

The course grade will be based on a **midterm exam (35%)** and a **final exam (65%)**. (Both exams will be held in person.) The midterm exam will be held on *May 22, in class*. There is no deferred midterm exam. For students who do not attend the midterm exam, the weight is transferred to the final exam. There will be a deferred final exam for students who qualify (see below).

The final exam will be comprehensive and will be held during the examination period on the date and time scheduled by the University (and posted on the Exam Schedule page). 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 and then uploading the required form on the course website using the link “Deferred Exam Request.” The information on deferred standing is available at <https://www.yorku.ca/laps/econ/undergraduate-programs/academic-resources/departments-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 weeks 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 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 basic calculators can be used during tests and exams.**
- **Note on the use of Electronic Devices:** All electronic devices must be turned off during class and during exams. Audio/visual recordings of any type are *not* allowed.

4. Course Textbook (Required)

Essential Mathematics for Economic Analysis, sixth edition, Knut Sydsaeter and Peter Hammond with Arne Strom, Prentice Hall.

5. Topics to be covered

- a) Review of basic algebra, equations and inequalities
- b) Functions of one variable, Properties of functions
- c) Differentiation, Derivatives in use, Single-variable optimization
- d) Integration

6. Useful Links

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

- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities: <https://accessibility.students.yorku.ca/>.
- [Student Guide to Moodle](#)
- [Zoom@YorkU Best Practices](#)
- [Zoom@YorkU User Reference Guide](#)
- [Computing for Students Website](#)
- [Student Guide to eLearning at York University](#)