

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

Fall 2023 Course Outline

Course #: AP/ECON 1530 Sec F

Introductory Mathematical Economics I

Fall 2023

Course Instructor Contact:

Course Instructor: Dr Shadab Qaiser

Office Hours: TBA

Email: qaisers@yorku.ca

Link to Course Website: I will be using eclass for posting announcements, lecture notes and online assignment set.

Teaching Assistant Information: TBA

Course Objectives: 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.

3. Recommended Course Text/Readings:

Essential Mathematics for Economic Analysis, 5th edition, Knut Sydsaeter and Peter Hammond with Arne Strom, Prentice Hall. You can also use older editions of this textbook.

4. Topics to be covered

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

5. Weighting of Course:

Midterm test - 45% (Monday OCT 23, 2023 at the beginning of class)

Final Exam – Cumulative (55%) Scheduled during the official exam period by the Registrar's Office. **Comprehensive, covering all course material.**

There is no makeup Midterm test. Students absent from the midterm exam will have the weight automatically transferred to their final exam. The final exam will be cumulative and will cover all materials discussed in the course. The date of the final exam will be scheduled by the registrar's office. Students absent from the final examination and requesting for deferred standing must follow the guidelines for Deferred Standing of the Department of Economics at York University.

6. Intellectual property notice:

All materials prepared for **Econ 1530 Sec F** at York University are the intellectual property of the instructor. This can include but is not limited to the following material: lecture notes, handouts and recordings; assignment handouts and instructions; spoken and written presentations; audio and video recordings; PowerPoint slides; and questions and/or solution sets for assignments, quizzes, tests and final exams.

Course materials should only be used by students enrolled in this course. As a student in this course, you may not publish, post on an Internet site, sell, or otherwise distribute any of this work without the instructor's express permission. Unauthorized or commercial use of these materials is strictly prohibited. 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. Copying this material for distribution (e.g. uploading material to a commercial third-party website, or online sharing of course material with people outside of the course) may lead to a charge of misconduct under York's [Code of Student Rights and Responsibilities](#) and the [Senate Policy on Academic Honesty](#). In addition, you may face legal consequences for any violation of copyright law.

Important Course Information for Students:

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage;

<http://www.yorku.ca/secretariat/policies/index-policies.html/>

York's Academic Honesty Policy and Procedures/Academic Integrity Website

Academic Honesty and Integrity: Conduct that violates the ethical or legal standards of the University community or of one's program or specialization is subject to severe penalties. Students are responsible for understanding the nature and consequences of these offences, as contained in the Senate Policy on Academic Honesty, found on the York University Senate WEB page:

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

Ethics Review Process for research involving human participants

<http://www.yorku.ca/secretariat/policies/document.php?document=94>

Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities

<http://www.yorku.ca/secretariat/policies/document.php?document=68>

Student Conduct Standards

<http://www.yorku.ca/oscr/standards.html>

Religious Observance Accommodation

<https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>

IMPORTANT COURSE INFORMATION FOR STUDENTS

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Academic Standards, Curriculum & Pedagogy webpage (see Reports, Initiatives, Documents) - <http://secretariat.info.yorku.ca/files/CourseInformationForStudentsAugust2012.pdf>

- Senate Policy on Academic Honesty and the Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation

Important Academic Forms

- Religious Accommodation - http://registrar.yorku.ca/sites/registrar/files/pdf/exam_accommodation.pdf
- Deferred Standing - http://registrar.yorku.ca/pdf/deferred_standing_agreement.pdf
- Attending Physician's Statement Form - <http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>