

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

Winter 2020 Course Outline

Course: AP/ECON 1540 Section R

Mathematics for Economists II

Instructor: Imran Aziz

Office Location: VH 1104

Office Hours: F 2:30 to 3:30 PM

Email: imran_a@yorku.ca

Link to Course Website: I will be using Moodle for posting announcements, lecture handouts, practice assignments, and practice tests.

Teaching Assistant Information: TBA

1. Course Objectives: Course Description (prerequisites/co-requisites):

This course extends the analysis of basic Economics ideas, topics and problems begun in AP/ECON 1530 3.00. Again, relevant mathematical ideas and techniques are recalled and/or derived so as to provide a deeper understanding of Economic issues and how they can be resolved. The issues and problems covered require functions of more than one variable for their resolution. The notion of Quantity Supplied is combined with the notion of Quantity Demanded and notions of Market Equilibrium are introduced and discussed. Equilibria are evaluated through the introduction of mathematical notions and properties of systems of equations, eventually in matrix form. A deeper understanding of theories of demand (supply) and the foundations of demand (supply) functions is developed through the introduction of mathematical notions of unconstrained and constrained optimization and linear and nonlinear programming. As in AP/ECON 1530 3.0, many topics and issues are addressed and problem framing and problem solving abilities are enhanced.

2. Prerequisite: AP/ECON 1530 3.00 or equivalent.

Prerequisites/Co-requisites: AP/ECON 1000 3.00 or AP/ECON 1010 3.00, or equivalent. Note: No credit will be retained for this course for students who have successfully completed or who are currently enrolled in SC/MATH 1021 3.00, SC/MATH 1025 3.00, or SC/MATH 2221 3.00.

Course credit exclusions: SC/MATH 1505 6.00, SC/MATH 1540 3.00, SC/MATH 1550 6.00, GL/MATH/MODR 2650 3.00. Note: Acceptable course substitutes are available in the Calendar

3. Required Course Text/Readings:

Essential Mathematics for Economic Analysis, 5th edition, Knut Sydsaeter and Peter Hammond with Arne Strom, Prentice Hall.

4. Topics to be covered

We will be covering chapter 11 to chapter 16 from the text book; 17 could be included if time permits

- Functions of many variables
- Tools for comparative statics
- Multivariable optimization
- Constrained optimization
- Matrix and vector algebra
- Determinants and inverse matrices
- (Chapter 17) Linear programming

5. Course Evaluation

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| a. Midterm Exam (35 %) | Feb 28 th in class |
| b. Assignment (10%) | March 1 st week (due in 1 week) |
| c. Final Exam {Cumulative} (55%) | Held during Official examination period |

There will be no make-up exam for the midterm exam. Students absent from the midterm exam will have the weight transferred to their final exam. The final exam will be cumulative and will cover all materials discussed in class. 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. The grades may be scaled to conform to the regulations of the Faculty of Arts.

6. General Information

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

Policy and Guidelines on Withdrawn from Course: <http://secretariat-policies.info.yorku.ca/policies/withdrawn-from-course-w-policy-and-guidelines>

Important Dates

	Winter 2020
Reading Week	Feb 15- 21
Examination Period	April 7 - 25
Last date to add a course without permission of instructor	Jan 19
Last date to add a course with permission of instructor	Feb 3
Last date to drop a course without receiving a grade	March 13
Course Withdrawal Period (withdraw from a course and receive a grade of “W” on transcript)	March 14- April 5