

York University
Faculty of Liberal Arts & Professional Studies
Department of Economics
AP/ECON 1540 3.0 **D** Mathematics for Economists II
Fall 2021
Course Outline

Course Instructor Contact

Course Director: Mauri Hall

Virtual Office Hours: Thursday 3:30pm - 4:30pm

Email: hall1472@yorku.ca

Course Website: eClass.yorku.ca

Class Time: Wednesday 8:30am (videos posted)

Technical requirements

Several platforms will be used in this course (Moodle, Zoom and eClass), if you have privacy concerns you can provide only your first name or a nickname when you join a session. Note that a Zoom lecture will never be recorded without students being informed prior.

Please review technology requirements and FAQs for Moodle [here](#)

Link to Course Website: <https://moodle.yorku.ca>.

Useful links for student computing information:

[Student Guide to Moodle](#)

[Zoom@YorkU Best Practices](#)

[Zoom@YorkU User Reference Guide](#)

[Computing for Students Website](#)

[Student Guide to eLearning at York University](#)

Virtual office hours: Virtual Office hours will be held Thursday 3:30pm - 4:30pm.

Organization of the course

This course will be hosted in its entirety on Moodle. There will be pre-recorded videos posted each week by Wednesday morning at 8:30am. The course will be broken into six units each lasting two weeks.

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.

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.

Course Organization

The course content will be delivered via the course website on Moodle using a combination of the following:

- (1) Pre-recorded videos
- (2) Practice Quizzes
- (3) Handouts

Tests and Exams

The following apply to the tests and exams in the course:

- The course will have three quizzes, one after each pair of units (one after modules 1 and 2, another after modules 3 and 4, and a final quiz after modules 5 and 6).
- The quizzes are to be submitted on the course website on eclass.

Grading

The course grade will be based on the three quizzes, each worth 33.33% of the final grade. Each quiz will have to be completed and/or submitted on the course website by the stated due date. The composition of each quiz will focus *primarily* on the material covered in class since the last quiz. Note that quizzes are cumulative and may include content covered in previous weeks.

Missed Quizzes

- If a quiz is missed the weight of the missed quiz will be allocated to the remaining two quizzes.

Final Exam

Should a student require it, either for religious reasons or due to circumstances beyond their control, the opportunity to write a deferred final will be made available. Note that the deferred exam may take the form of a written assignment. If needed please email notification to the course director.

Alternately, copy and paste the following link into your browser:
<https://myacademicrecord.students.yorku.ca/deferred-standing>

Academic Honesty and Integrity

Our aim in this course is to maintain the highest level of academic integrity. Please read SPARK's Academic Integrity module. Observed academic dishonesty will be reported to the appropriate university authorities, and is punishable in accordance with the Senate Policy on Academic Honesty.

Link to Important Dates Fall 2021: [Important Dates](#)

Course Add/Drop Deadlines	Winter Term 2021(F)
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Last date to add a course without permission of instructor (also see Financial Deadlines)	Sept 21
Last date to add a course with permission of instructor (also see Financial Deadlines)	Oct 5
Last date to add a course with permission of instructor (also see Financial Deadlines)	Nov 12
Course Withdrawal Period (withdraw from a course and receive a grade of “W” on transcript – see note below)	Nov 13 - Dec 7

Recommended Course Textbook

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

Topics Covered

1. Functions of several variables
2. Multivariate (unconstrained) optimization
3. Constrained optimization
4. Linear algebra

Please note that materials for this course should be used for educational (i.e. not commercial) purposes only. Students do not have permission to duplicate, copy and/or distribute the handouts, practice sets and/or recordings outside of class.