

Faculty of Liberal Arts & Professional Studies
Department of Economics
ECON 1530 Section Q
Winter 2022

REVISED COURSE OUTLINE
(January 2022)

Course: AP/ECON 1530 Q – Introductory Mathematical Economics I

Term: Winter Term of Academic Year 2021-22

Course Instructor: Sudeshna Maitra

Office Hours: By email appointment

Email: sm2.teaching@gmail.com

Course Website: <https://eclass.yorku.ca/course/view.php?id=57931>

Please check this regularly for announcements, notes, assignments, solutions etc.

Prerequisite / Co-requisite:

1. Grade 12U Advanced Functions or equivalent.
2. 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.

Time and Location

Lectures: Tuesdays & Thursdays, 10:00 am – 11:30 am

Location: Zoom link (posted on course website)

Teaching Assistant(s): TBA

Course Description

Overview: This course introduces and develops topics in differential calculus, integral calculus, and their applications in economics. Topics will include a review of algebra, linear equations, quadratics, general functions of one variable, continuity, limits and derivatives of single-variable functions, series, exponential and logarithmic functions, single-variable optimization, constrained optimization and integration. Applications to topics in economics will include (but not be limited to) supply and demand functions, maximization of revenue and profits, elasticity of demand and consumers' surplus.

Details: Economists are interested in microeconomic models of the behavior of agents (demanders and suppliers) in individual markets. Economists are also interested in macroeconomic models of aggregated markets and total consumption, investment and government spending as well as interest rates, exchange rates and money supply. This interest manifests itself at both a theoretical and empirical level. In all cases it is important that economists describe their areas of interest, their models and their results in a precise manner. The natural way to do this is to write models and study their properties using a language or languages that are rich and precise and which are used by most economists in the profession. These languages are mathematics and statistics. Our goal in this course is to review and develop the mathematics needed for you to be able to both understand the statement of economic models and for you to analyze and derive properties of economic models.

Learning Process: You are expected to attend lectures and to solve the problems that are assigned each week. Your understanding of the course material will become deeper and broader the more you practise. You can't simply read mathematics and expect to understand or retain ideas or solve problems.

Course Text

Knut Sydsaeter, Peter Hammond, Arne Strom and Andres Carvajal. Essential Mathematics for Economic Analysis, Fifth Edition (ISBN 978129207461-0), Pearson.

(An e-version is available as well. Please see the York University Bookstore for details.)

Weighting of Course Components

Assignments (dates TBA): 10%

Midterm Test (Thursday, February 17, 2022, during class time): 30%

Final Exam During April 12-29, 2022 (date set by Registrar): 60%

Additional Information about graded components

The midterm test is optional. If you choose to write it, your midterm grade can count 30% towards your final course grade. If you write the term test and do not like your grade, you can have the weight of the test added to the final exam. Warning! You should write the midterm test. Writing the test does not guarantee that you will pass the course. However, students who do not write the test tend to fail the course. It helps to prepare you for writing exams. There is no makeup midterm test.

Regular assignments will be posted throughout the term. If you submit answers to the assignment before the end of the deadline, you automatically receive 100% marks for the assignment. If you miss an assignment, you get a grade of 0 for the assignment.

The final exam will be cumulative and will cover all materials discussed in class and the assigned problems. The date of the final exam will be scheduled by the Registrar's office. Students absent from the midterm test will automatically have their final exam determine 80% of the course grade. Students absent from the final exam will have to request a makeup exam. This makeup exam will take place only once.

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Tests and final exam grades will be numeric. They can be transformed to a letter grade using the following scale: A+ = 90 to 100, A = 80 to 89, B+ = 75 to 79, etc.

Important Course Information for Students

Important Dates:

- January 10, 2022: Classes start
- January 23, 2022: Last day to enroll without permission of instructor
- February 7, 2022: Last day to enroll with permission of instructor
- February 19-25, 2022: Winter Reading Week (No classes, University is open)
- March 18, 2022: Last day to drop course without receiving a grade
- March 19 – April 10, 2022: Voluntary drop period, grade of W on transcript
- April 10, 2022: Classes end
- April 11, 2022: Winter Study Day
- April 12-29, 2022: Fall exam period. Exams dates are set by the Registrar. Special exam dates cannot be set by the instructor. **Do not pre-book travel that could conflict with the final exam date.**

Other Important Information

- **Academic honesty and integrity:**

In this course, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing SPARK's Academic Integrity module at the beginning of the course. Breaches of academic integrity range from cheating to plagiarism (i.e., the improper crediting of another's work, the representation of another's ideas as your own, etc.). All instances of academic dishonesty in this course will be reported to the appropriate university authorities and can be punishable according to the Senate Policy on Academic Honesty.

- Final course grades given by the instructor will use the standard York grading scale and may be adjusted to conform to Program or Faculty grades distribution profiles.
- All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage; <http://secretariat-policies.info.yorku.ca>
 - Senate Policy on Academic Honesty and the Academic Integrity Website
<https://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>
 - Ethics Review Process for research involving human participants
<https://secretariat-policies.info.yorku.ca/policies/ethics-review-process-for-research-involving-human-participants-policy/>
 - Academic Accommodation for Students with Disabilities (Policy)
<https://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/>
 - Student Conduct Standards
<http://www.yorku.ca/oscr/standards.html>

- Religious Observance Accommodation
<https://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-religious-observances-policy-guidelines-and-procedures/>
- Religious Observances Dates
<https://registrar.yorku.ca/enrol/dates/religious-accommodation-guidelines-2021-2022>
- Grading Scheme and Feedback (Senate) Policy*
<http://secretariat-policies.info.yorku.ca/policies/grading-scheme-and-feedback-policy/>
- Alternate Exam and Test Scheduling
<https://altexams.students.yorku.ca/>
- Important Sessional Dates
<https://registrar.yorku.ca/enrol/dates>

**Additional information:*

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