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

AP /ECON 1530 3.0 M: Introductory Mathematical Economics I
Winter 2021

Instructor: Yulia Neleptchenko

Email: yulianel@yorku.ca

Office Hours: by email

Classes: Tuesdays and Thursdays 5:30-7:00pm; Location: online
Teaching Assistant: TBA
Office Hours: TBA
TA's Email: TBA

Course Web Site: https: / /moodle.yorku.ca/ (e-class)
Please check the webpage regularly for course announcements.

Prerequisites: Grade 12U Advanced Functions or equivalent.

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

Credit Exclusions: SC/MATH 1000 3.00, SC/MATH 1013 3.00, SC/MATH 1300 3.00, SC/MATH 1505 6.00, SC/ MAT H 1513 6.00, SC/MATH 1530 3.00, SC/MATH 1550 6.00, GL/MATH 1930 3.00, GL/MODR 1930 3.00.

Technical requirements for taking the course:

Here are some useful sources for student computing information, resources, and help:

- Student Guide to Moodle
- Zoom @YorkU Best Practices
- Zoom @YorkU User Reference Guide
- Computing for Students Website
- Students Guide to eLearning at York University

You will need a laptop or a desktop computer in a good working order, together with a reliable Internet connection.

You will need a camera of a decent quality such as one built into a laptop, smartphone, or tablet. You will write your tests on paper, take a picture, convert it to a pdf file, and upload the file to Moodle/e-class or send to the email assigned for the test, depending on the instructions provided. Before sending/uploading please make sure that the file is legible and everything you wrote fit into the page picture and nothing cut out. The same requirements apply to the work done by writing on a touchscreen.

Online Course Information: Please note that this is a course that depends on remote teaching and learning. There will be no in-person interactions or activities on campus.

Organization of the Course:

The entire course, including participation/discussion and test-taking, will take place on the course Moodle/e-class webpage and/or via email. Recorded lectures and class notes will be uploaded/posted on our Moodle/e-class twice a week. All the materials will be available for a later review. You can learn the material at your own pace through lectures, notes and the textbook, following the syllabus of the course. However, we strongly recommend to distribute the material to study over the term and not to study a lot of material right before the midterms or the final.

Course Description:

The 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. Illustrations of the topics will be provided by examples of supply and demand functions, maximization of revenue and profit, elasticity of demand and consumer's surplus.
As economists, we are interested in microeconomics models of the behavior of agents (demanders and suppliers) in individual markets. We are also interested in macroeconomics models of aggregated markets and total consumption, investment and government spending, interest rates, exchange rates, money supply and more. Theoretical and empirical methods of Economics, based on mathematics and statistics, provide rich and precise solutions for problems agents and policy makers facing. The goal of this course is to review and develop the mathematical skills needed for understanding, analyzing, and deriving properties of economic models.
You are expected to watch the lectures, read the notes posted and practice solving the problems assigned. Your understanding of the course material will become deeper and broader the more you practice. Do not expect to fully understand just by watching the lectures and reading the notes, mathematics is all about practice/exercising.

Course textbook: Knut Sydsaeter, Peter Hammond Arne Strom and Andres Carvajal, Essential Mathematics for Economic Analysis, Fifth Edition, Pearson. The textbook is available through York Bookstore and other merchants online.

Course Plan:
The course covers chapters 1-4 and 6-10 of the textbook. The lectures are mainly based on the book and should be your first priority to study, then the textbook.

Evaluation:
Midterm 1 (20% of the grade) will be held on February 11th during the lecture time.
Midterm 2 (20% of the grade) will be held on March 16th during the lecture time.
Final Exam (60% of the grade) will be scheduled by the Registrar's Office during the Final Exams Period. The final exam will be cumulative and will cover all the materials discussed in the class.

Everyone missing a midterm will receive zero for that midterm. There are no makeups for midterms. Anyone receiving a higher final grade that one of the midterms grades (including a zero for a missed midterm) will have the final grade reweighted to 80%. Anyone receiving a higher final grade than both of their midterm grades (including zeros for missed midterms) will have their final exam grade reweighted to 100%.
A student who missed the final exam will have to formally petition to the Faculty of Liberal Arts and Professional Studies (or his/her own faculty if not a LA&PS student) for a makeup exam. The exact final exam date is determined by the Registrar's Office, the instructor has no impact on the date of the final. Please do not pre-book travel that could conflict with the final exam date.

Email Etiquette:
In the event that an e-mail communication is needed, please use your York U email account (the yorku.ca account) or the email tied to your e-Class login. Please include your full name and student number in the subject line, use a professional and polite language in writing the contents of the email.

Academic Honesty and Integrity:

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. 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. A lack of familiarity with the Senate Policy and Guidelines on Academic Honesty does not constitute a defense against their application.

Important Dates:
Classes start/end: January 11th- April 12th
Reading Week: February 13th-February 19th
April 13th is a Winter Study Day
Final Exams: April 14th -April 28th

Additional Important Information:

The following information can be found in the document on LA&PS course policies:
Student Code of Conduct
Academic Accommodation for Student with Disabilities
Religious Observance Accommodation