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

AP/ECON 1530 3.0
Mathematics for Economists I
Fall 2019 Course Outline

1. Course Instructor Contact:

Instructor: Paul Rilstone
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2. Course Description (prerequisites/co-requisites):

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.
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.

3. Required Course Text/Readings:

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

4. Weighting of Course:
The final mark will be based on one midterm test (**Saturday, Oct 26, 10:00 AM, CLH-L**, 20% of Final Grade), a number (N) of in-class **Random Quizzes** (20% of Final Grade) and a final exam (Date TBA, 60% of Final Grade).

There are no makeups for missed mid-term tests or quizzes. Anyone missing the midterm test will automatically have their final exam reweighted to be worth 80%. If a student receives a higher grade on the final exam than on the midterm test, the final exam grade will be worth 80% of the

final grade. **Anyone missing a random quiz receives zero for that quiz.** The 20% component for the quizzes will be based on your N-1 best quiz grades.

There will be generally no deferments offered for missed final exams except under very unusual circumstances. Anyone wishing to write a deferred final exam generally will be required to formally petition for such. Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

5. Topics to be covered: See details on-line.

6. Additional Information:

There will be tutorials offered for students in 1530 in which a TA will go over problems germane to the course material. These are highly recommended. Note that any 1530 student, regardless of his/her section is welcome to bring their problems to me during my office hours. Some of the other instructors have this policy as well. (Please ensure that you **only** attend tests and exam for the section you are registered in).

There is a Moodle website for this course where I post assignments, notes, old exams, announcements and the occasional bad joke. Please check regularly.

I regularly assign problem sets from the text and go over as many solutions as I can in class.

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
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> **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