Objectives

The aim of the course is to provide a review of a variety of mathematical and statistical methods commonly applied in economic analysis.

Registration

Registration in this course is strongly recommended for all incoming M.A. economics students.

Evaluation

One assignment is due in class at 1 p.m. on the day of each tutorial (listed above). There are four in total. Each assignment will comprise 10% of the final grade.

The final examination will take place on August 30 from 10 a.m. to 12 p.m. at a location to be announced by the university. It will comprise 60% of the final grade.

Tutorials

The tutorials are an integral part of the course and are important to its successful completion. In each tutorial, the assignment collected in class earlier that day will be discussed and the solutions will be provided. Additional questions and problems that are relevant to the topics covered in the lectures will also be discussed in the tutorials.
Recommended texts

It is important to have appropriate mathematics and statistics reference texts. The course material (including recommended problems) will be drawn from the texts below but you can review using substitute texts that you may already have.


Course outline and coverage

The topics will be covered as time permits and the order is subject to change. The instructor will indicate in class which topics will be subject to testing on the final examination.

Mathematical methods

1. Linear algebra, calculus, and differential equations
2. Static optimisation
3. Dynamic optimisation

Statistical methods

4. Probability, random variables, and distributions
5. Estimation, hypothesis testing, and inference
6. Linear regression

Plagiarism

Please be aware that plagiarism is a serious offence at Carleton and should be recognised and avoided. For information on how to do so, please see “Pammett on Plagiarism and Paraphrasing” at [www.carleton.ca/economics/courses/writing-preliminaries/](http://www.carleton.ca/economics/courses/writing-preliminaries/).

Students with disabilities

Students with disabilities requiring academic accommodations in this course must contact a coordinator at the Paul Menton Centre for Students with Disabilities (PMC) to complete the necessary Letters of Accommodation. After registering with the PMC, students must make an appointment to meet and discuss their needs with the instructor in order to make the necessary arrangements as early in the intersession as possible.