

# ECON 2174

## Mathematics for Economists

Department of Economics, HKUST

4 credits

### Instructor

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### Teaching Assistant

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### Overview

This course introduces mathematical tools that are needed for economic studies. Topics include calculus, linear algebra, and optimization methods that are geared towards economic applications.

### Prerequisites

Basic calculus

### Reference Books

*Fundamental Methods of Mathematical Economics*, A.C. Chiang and K. Wainwright (2005), McGraw-Hill

*Mathematics for Economists*, Carl P. Simon and Lawrence Blume (1994), Norton

### Grading

Homework (20%), midterm exam (35%), final exam (45%)

## **Homework**

Problem sets. Collaboration is allowed, even encouraged.

## **Exams**

Exam dates are to be determined and will be announced two weeks in advance.

Both exams are in-class. Final exam is cumulative.

## **Tutorials**

We will have tutorials but not on a regular basis. Tutorials will be announced on week in advance.

## **Main topics**

- Preliminaries
- Calculus and real analysis
- Linear algebra
- Optimization

## **Objectives**

After completing this course you are expected to have a good understanding of basic mathematical tools for economic studies.

## **Honor Code**

There will be no tolerance for plagiarism and cheating. Any related offense will lead to disciplinary action including termination of studies at the University. Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations.