

Course Outline: Introductory Mathematical Economics I

S1 2026

DEPARTMENT OF ECONOMICS

Note for students: This short course outline is provided for planning purposes only. Course information is tentative and subject to change; the final course syllabus will be available by the first day of classes.

Course Code

AP/ECON 1530 Introductory Mathematical Economics I

Course Description

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.

Course Delivery

Delivery Mode: LECT

Classes are held Tuesday and Thursday, 14:30-17:20, in CLH-D. (Class attendance is required.)

Course Materials

Course Textbook: *Essential Mathematics for Economic Analysis*, sixth edition, Knut Sydsaeter and Peter Hammond with Arne Strom, Prentice Hall. (The electronic version of the textbook can be purchased for \$62 if purchased until Sept. 17. The link is available on the course website.)

Tentative Grade Breakdown and Deadlines

Assessment	Weight	Mode	Tentative Deadline
Course Participation	20%	Class Attendance (10%), Online Quizzes (10%)	Weekly
Term Test 1	20%	In-person	May 23, 2026
Term Test 2	20%	In-person	June 6, 2026
Final Exam	40%	In-person	Exam Period
	100%		