COURSE DETAIL

QUANTITATIVE METHODS (MATHEMATICS)

Country
United Kingdom - England

Host Institution
London School of Economics

Program(s)
London School of Economics

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Mathematics

UCEAP Course Number
158

UCEAP Course Suffix

UCEAP Official Title
QUANTITATIVE METHODS (MATHEMATICS)

UCEAP Transcript Title
QUANTITATIVE METHOD

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

This course develops the basic mathematical tools necessary for further study in economics and related disciplines. The course focuses on techniques of calculus (differentiation, partial differentiation, optimization, and integration), methods of linear algebra (use of matrices), and the solution of difference and differential equations. The ideas are taught systematically, with emphasis on their application to economic problems. Examples are used throughout the course for motivation and illustration. Specific topics are as follows: sets, functions, equations, and graphs; difference equations, sequences, and limits; differentiation, inverse functions, and exponential and logarithmic functions; partial differentiation, chain rule, and homogeneous functions; optimization in two variables (unconstrained and constrained); Lagrange multipliers; vector notation and convexity; matrix notation, systems of linear equations, and inverse matrices; integration; and differential equations.

Language(s) of Instruction
English

Host Institution Course Number
MA107

Host Institution Course Title
QUANTITATIVE METHODS (MATHEMATICS)

Host Institution Campus
London School of Economics

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mathematics

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