

# COURSE DETAIL

## FURTHER 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**

114

**UCEAP Course Suffix****UCEAP Official Title**

FURTHER QUANTITATIVE METHODS (MATHEMATICS)

**UCEAP Transcript Title**

FURTHER QUANT METHD

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This is a second course in quantitative methods, following on directly from Quantitative Methods (Mathematics) (MA107). This course contains further algebra and calculus. As with the course MA107, the emphasis is on applications in economics and finance. Topics include matrix methods in portfolio analysis; linear independence; rank of a matrix; eigenvalues and eigenvectors; diagonalization; linear systems of recurrence equations; Markov process; second-order recurrence equations; macroeconomic models; vector geometry; gradient and directional derivative; tangent hyperplanes and the optimal bundle; resource allocation and Pareto efficiency; orthogonal matrices and quadratic forms; critical points of quadratic functions; Taylor's approximation; and optimization of functions of two or more variables.

## Language(s) of Instruction

English

## Host Institution Course Number

MA207

## Host Institution Course Title

FURTHER QUANTITATIVE METHODS (MATHEMATICS)

## Host Institution Course Details

## Host Institution Campus

London School of Economics

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Mathematics

## Course Last Reviewed

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