

## COURSE DETAIL

### OPTIMIZATION, DECISION MATHEMATICS AND VARIATIONAL PRINCIPLES

**Country**

United Kingdom - England

**Host Institution**

University of Cambridge, Pembroke College

**Program(s)**

Summer in Cambridge

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

104

**UCEAP Course Suffix**

S

**UCEAP Official Title**

OPTIMIZATION, DECISION MATHEMATICS AND VARIATIONAL PRINCIPLES

**UCEAP Transcript Title**

OPTIMIZATN/DEC MATH

**UCEAP Quarter Units**

5.00

**UCEAP Semester Units**

3.30

**Course Description**

This course introduces students to a variety of applicable mathematical methods for solving real-world problems. It is intended for students interested in how further mathematics can be used to solve hands-on problems. The economically-minded will be interested in optimizing based on constrained resources, and computer scientists will be interested in the various network algorithms explored. Physicists will find the material at the end of the course indispensable for solving classical problems. The game theory section of the course includes a discussion of the assumptions made about how rational agents act, which may interest psychologists and philosophy students.

**Language(s) of Instruction**

English

**Host Institution Course Number****Host Institution Course Title**

OPTIMIZATION, DECISION MATHEMATICS AND VARIATIONAL PRINCIPLES

**Host Institution Campus**

Pembroke College

**Host Institution Faculty****Host Institution Degree****Host Institution Department**

Mathematics

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