

# COURSE DETAIL

## FUNDAMENTALS OF OPERATIONAL RESEARCH

**Country**

United Kingdom - Scotland

**Host Institution**

University of Edinburgh

**Program(s)**

University of Edinburgh

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mathematics

**UCEAP Course Number**

140

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

FUNDAMENTALS OF OPERATIONAL RESEARCH

**UCEAP Transcript Title**

OPERATIONL RESEARCH

**UCEAP Quarter Units**

4.00

**UCEAP Semester Units**

2.70

## Course Description

Dynamic programming is a neat way of solving sequential decision optimization problems. Integer Programming provides a general method of solving problems with logical constraints. Game theory is concerned with mathematical modelling of behavior in competitive strategic situations in which the success of strategic choices of one individual (person, company, server, ...) depends on the choices of others. By the end of this course, students have gained: ability to formulate and solve a sequential decision optimization problem; ability to formulate and solve optimization problems with logical constraints; ability to find optimal and equilibrium strategies for zero- and nonzero-sum 2x2 matrix games; and mastery of the theory underlying the solution methods.

## Language(s) of Instruction

English

## Host Institution Course Number

MATH10065

## Host Institution Course Title

FUNDAMENTALS OF OPERATIONAL RESEARCH

## Host Institution Course Details

<http://www.drps.ed.ac.uk/23-24/dpt/cxmath10065.htm>

## Host Institution Campus

Edinburgh

## Host Institution Faculty

School of Mathematics

## Host Institution Degree

## Host Institution Department

## Course Last Reviewed

2022-2023

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