COURSE DETAIL

MATHEMATICAL MODELLING AND SIMULATION
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 118
UCEAP Course Suffix
UCEAP Official Title MATHEMATICAL MODELLING AND SIMULATION
UCEAP Transcript Title MATH MODEL&SIMULATN
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

The course covers some of the most prominent tools in modelling and simulation. Both deterministic and stochastic models are covered. These include mathematical optimization, the application of sophisticated mathematical methods to make optimal decisions, and simulation, the playing-out of real-life scenarios in a (computer-based) modelling environment. Topics may include formulation of management problems using linear/nonlinear and network models (these could include binary, integer, convex, and stochastic programming models) as well as solving these problems and analyzing the solutions; generating random variables using Monte Carlo simulation; discrete event simulation; variance reduction techniques; Markov Chain Monte Carlo methods. The course teaches students to use modelling and simulation computer packages.

Language(s) of Instruction
English

Host Institution Course Number
MA324

Host Institution Course Title
MATHEMATICAL MODELLING AND SIMULATION

Host Institution Course Details
https://www.lse.ac.uk/resources/calendar/courseGuides/MA/2022_MA324.htm

Host Institution Campus
London School of Economics

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mathematics

Course Last Reviewed
2022-2023

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