COURSE DETAIL

COMPUTING AND NUMERICS
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 105
UCEAP Course Suffix
UCEAP Official Title COMPUTING AND NUMERICS
UCEAP Transcript Title COMPUTING& NUMERICS
UCEAP Quarter Units 4.00
UCEAP Semester Units 2.70

Course Description

This course introduces numerical methods, which are now an essential component in a diverse range of disciplines. Topics include creation and manipulation of arrays, solutions of linear systems, Gaussian elimination with partial pivoting, numerical differentiation and integration, introductory numerical differential equations, root finding methods, including bisection and fixed-point iteration, Newton's method in one and higher dimensions, and functional minimization in multiple dimensions. Within these topics students are introduced to variables and functions, floating point arithmetic, flow control, container types, plotting, and symbolic expressions.

Language(s) of Instruction
English

Host Institution Course Number
MATH08065

Host Institution Course Title
COMPUTING AND NUMERICS

Host Institution Course Details
http://www.drps.ed.ac.uk/24-25/dpt/cxmath08065.htm

Host Institution Campus

Host Institution Faculty
School of Mathematics

Host Institution Degree

Host Institution Department

Course Last Reviewed
2024-2025

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