

COURSE DETAIL

MATHEMATICAL COMPUTING

Country

Australia

Host Institution

University of Sydney

Program(s)

University of Sydney

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics

UCEAP Course Number

127

UCEAP Course Suffix**UCEAP Official Title**

MATHEMATICAL COMPUTING

UCEAP Transcript Title

MATH COMPUTING

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course provides an introduction to programming and numerical methods. Topics covered include computer arithmetic and computational errors, solution of nonlinear equations, systems of linear equations, numerical integration and differentiation, interpolation and approximation, initial value problems for ordinary differential equations. This course will cover basic concepts of numerical optimization and applications such as for instance numerical optimization in the rapidly evolving domain of machine learning.

Language(s) of Instruction

English

Host Institution Course Number

MATH3076

Host Institution Course Title

MATHEMATICAL COMPUTING

Host Institution Course Details

<https://www.sydney.edu.au/courses/units-of-study/2020/math/math3076.html>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematics

Course Last Reviewed

2024-2025

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