

COURSE DETAIL

COMPLEXITY

Country

United Kingdom - England

Host Institution

Imperial College London

Program(s)

Imperial College London

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Computer Science

UCEAP Course Number

146

UCEAP Course Suffix

N

UCEAP Official Title

COMPLEXITY

UCEAP Transcript Title

COMPLEXITY

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

In this course, students study time and space complexity classes; identify the complexity classes associated with computational problems; prove that problems are complete for particular complexity classes; develop the ability to fit a particular problem into a class of related problems, and so to appreciate the efficiency attainable by algorithms to solve the particular problem; study circuit complexity and the class NC of parallelizable problems; study randomized computation and the associated complexity classes; and explore how the P=NP problem is related to cryptography.

Language(s) of Instruction

English

Host Institution Course Number

COMP70005

Host Institution Course Title

COMPLEXITY

Host Institution Course Details

<https://www.imperial.ac.uk/computing/current-students/courses/70005/>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Computing

Course Last Reviewed

2024-2025

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