## **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**

Ν

#### **UCEAP Official Title**

**COMPLEXITY** 

# **UCEAP Transcript Title**

**COMPLEXITY** 

## **UCEAP Quarter Units**

5.00

#### **UCEAP Semester Units**

## **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 Campus** 

**Host Institution Faculty** 

**Host Institution Degree** 

**Host Institution Department** 

Computing

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