

COURSE DETAIL

COMPUTER SIMULATIONS IN SCIENCE AND ENGINEERING

Country

United Kingdom - England

Host Institution

University College London

Program(s)

University College London

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Engineering Computer Science

UCEAP Course Number

167

UCEAP Course Suffix**UCEAP Official Title**

COMPUTER SIMULATIONS IN SCIENCE AND ENGINEERING

UCEAP Transcript Title

COMP SIMULATION/SCI

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course starts with a historical overview of computer simulations in science and engineering and an introduction to the challenges and opportunities in connecting simulations, theory, and experiments. Students address the core concepts essential to understand and interpret computer simulations in science and engineering, including the fundamentals of statistical physics, interaction potentials, Monte Carlo simulations, equation-based simulations, and the concept of coarse-grained simulations and enhanced sampling techniques.

Language(s) of Instruction

English

Host Institution Course Number

BASC0080

Host Institution Course Title

COMPUTER SIMULATIONS IN SCIENCE AND ENGINEERING

Host Institution Campus

Bloomsbury

Host Institution Faculty

Faculty of Arts and Humanities

Host Institution Degree

Host Institution Department

UCL Arts and Sciences

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