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 Course Details
https://www.ucl.ac.uk/module-catalogue/modules/computer-simulations-in-science-...

Host Institution Campus
Bloomsbury

Host Institution Faculty
Faculty of Arts and Humanities

Host Institution Degree

Host Institution Department
UCL Arts and Sciences

Course Last Reviewed
2023-2024

Print