

COURSE DETAIL

MOLECULES AND ENERGETICS

Country

United Kingdom - England

Host Institution

Imperial College London

Program(s)

Imperial College London

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Bioengineering

UCEAP Course Number

146

UCEAP Course Suffix

Y

UCEAP Official Title

MOLECULES AND ENERGETICS

UCEAP Transcript Title

MOLECULS&ENERGETICS

UCEAP Quarter Units

15.00

UCEAP Semester Units

10.00

Course Description

This course provides students with a fundamental understanding of the chemistry and materials science principles related to Bioengineering. It covers the main functional groups in organic molecules, their roles in building more complex structures and functionalizing surfaces; the main techniques for identifying and characterizing engineered molecules; the foundations of classical thermodynamics and applications in biomedical engineering and molecular sciences; chemical kinetics, Fick's laws and steady state diffusion; and the wet lab skills of students, including preparing a range of biomaterials and practice with the main techniques used for classifying such materials.

Language(s) of Instruction

English

Host Institution Course Number

BIOE40008

Host Institution Course Title

MOLECULES AND ENERGETICS

Host Institution Course Details

<https://www.imperial.ac.uk/people/s.ladame/teaching.html>

Host Institution Campus

Kensington

Host Institution Faculty

Host Institution Degree

Host Institution Department

Bioengineering

Course Last Reviewed

2023-2024

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