

# 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 Campus**

Kensington

### **Host Institution Faculty**

### **Host Institution Degree**

### **Host Institution Department**

Bioengineering

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