

# COURSE DETAIL

## MATERIALS 1

**Country**

United Kingdom - England

**Host Institution**

Imperial College London

**Program(s)**

Imperial College London

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Mechanical Engineering Engineering

**UCEAP Course Number**

110

**UCEAP Course Suffix**

Y

**UCEAP Official Title**

MATERIALS 1

**UCEAP Transcript Title**

MATERIALS 1

**UCEAP Quarter Units**

5.00

**UCEAP Semester Units**

3.30

### **Course Description**

This course introduces students to the important mechanical properties that mechanical engineers require knowledge of and further introduces the concept and practice of materials selection. The links between material structure, processing and properties are emphasized. Topics include tensile and fracture properties, material selection, atomic bonding, crystal structure and strengthening. Also included is a focus on the four classes of engineering material: metals, ceramics, polymers and composites, considering the structure, properties and engineering applications of each. Practice in testing of materials is included.

### **Language(s) of Instruction**

English

### **Host Institution Course Number**

MECH40006

### **Host Institution Course Title**

MATERIALS 1

### **Host Institution Campus**

Imperial College London

### **Host Institution Faculty**

Faculty of Engineering

### **Host Institution Degree**

### **Host Institution Department**

Mechanical Engineering

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