

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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