COURSE DETAIL

ENGINEERING MATERIALS
Country Australia
Host Institution University of Melbourne
Program(s) University of Melbourne
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Engineering
UCEAP Course Number 103
UCEAP Course Suffix
UCEAP Official Title ENGINEERING MATERIALS
UCEAP Transcript Title ENGR MATERIALS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course examines materials science, construction materials, and mechanics of materials. The material science component examines basic concepts on inter-atomic bonding, microstructure of solids and generic material properties related to density, deformation, yield, ductility, fracture, toughness, susceptibility to corrosion and fatigue. The construction materials component examines the engineering applications of structural and light-gauge steel, concrete, masonry, timber, glass, fibre-glass and composites. The mechanics component examines the basic concepts of stress-strain compatibility, composite actions, the concept of shear stress flow, basic two-dimensional stress analysis, strength and ductility and arching actions.

Language(s) of Instruction
English

Host Institution Course Number
ENGR20003

Host Institution Course Title
ENGINEERING MATERIALS

Host Institution Course Details
https://handbook.unimelb.edu.au/2022/subjects/engr20003

Host Institution Campus
University of Melbourne

Host Institution Faculty

Host Institution Degree

Host Institution Department
Engineering

Course Last Reviewed
2022-2023

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