COURSE DETAIL

MATERIALS 1 (MECHANICAL)
Country United Kingdom - England
Host Institution University of Manchester
Program(s) University of Manchester
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mechanical Engineering Materials Science
UCEAP Course Number 125
UCEAP Course Suffix
UCEAP Official Title MATERIALS 1 (MECHANICAL)
UCEAP Transcript Title MATERIALS 1/MECH
UCEAP Quarter Units 4.00
UCEAP Semester Units 2.70

Course Description

This course serves as a starting point to develop an engineer’s ability to select a material based on cost and performance, understand limitations and how properties change in service and the ability to critically assess new materials for a given application. Furthermore, this course provides an introduction to materials engineering and materials science. It also introduces the primary classes of materials, and to develop an understanding of types of interatomic, crystal, and molecular bonding in engineering materials and their influence on mechanical properties. Students develop an understanding of the modes of failure for different classes of materials. This course introduces brittle fracture, and to develop an understanding of the ways in which a flaw within a material can influence its response to loading.

Language(s) of Instruction
English

Host Institution Course Number
MECH10002

Host Institution Course Title
MATERIALS 1 (MECHANICAL)

Host Institution Course Details
https://www.manchester.ac.uk/study/international/study-abroad-exchange/unit-sea...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mechanical Engineering

Course Last Reviewed

2024-2025

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