

COURSE DETAIL

MATERIALS SELECTION AND MECHANICAL MODELLING

Country

United Kingdom - England

Host Institution

University of London, Queen Mary

Program(s)

University of London, Queen Mary

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mechanical Engineering

UCEAP Course Number

132

UCEAP Course Suffix**UCEAP Official Title**

MATERIALS SELECTION AND MECHANICAL MODELLING

UCEAP Transcript Title

MAT SELECT&MECH MOD

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This module introduces principal modelling techniques in solid mechanics and serves as a macro-mechanical complement to the courses Materials Science 1: Properties of Matter (MAT 100) and Functional Materials (MAT203) focusing on micromechanical aspects of materials science. Fundamental concepts (e.g. Newton's laws, force/movement, stress/strain, energy/work, statics/dynamics, friction/creep/fatigue etc.) will be studied to derive mechanical models for the description of the behaviour of materials. Corresponding applications for real-life design tasks are finally discussed to get insight into basic mechanics-based material selection criteria.

Language(s) of Instruction

English

Host Institution Course Number

MAT102

Host Institution Course Title

MATERIALS SELECTION AND MECHANICAL MODELLING

Host Institution Course Details

Host Institution Campus

QMUL

Host Institution Faculty

Host Institution Degree

Host Institution Department

Engineering and Materials Science

Course Last Reviewed

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