

COURSE DETAIL

STRESS ANALYSIS 2

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

UCEAP Course Number

127

UCEAP Course Suffix**UCEAP Official Title**

STRESS ANALYSIS 2

UCEAP Transcript Title

STRESS ANALYSIS 2

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course builds on previous stress analysis courses by extending the concepts of linear elasticity to two and three dimensions, as the basis for advanced stress analysis. Topics covered include complex stresses and strains, Mohr's circle, failure criteria, shear stresses in beams, thick-walled cylinders, plastic failure and buckling of struts. The course enables students to develop sufficient familiarity with stress analysis and strength of materials to design a safe and reliable load-bearing component of simple geometry (or to assess the safety of an existing one).

Language(s) of Instruction

English

Host Institution Course Number

MECH50002

Host Institution Course Title

STRESS ANALYSIS 2

Host Institution Course Details

<https://www.imperial.ac.uk/mechanical-engineering/study/undergraduate/detailed-...>

Host Institution Campus

Imperial College London

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mechanical Engineering

Course Last Reviewed

2023-2024

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