

COURSE DETAIL

STRESS ANALYSIS 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

105

UCEAP Course Suffix

Y

UCEAP Official Title

STRESS ANALYSIS 1

UCEAP Transcript Title

STRESS ANALYSIS 1

UCEAP Quarter Units

4.00

UCEAP Semester Units

2.70

Course Description

This course introduces the basic concepts and methods of stress analysis. It explains the mathematical descriptions of stress analysis and demonstrates the physical significance of stress and strain and the importance and application of Hooke's Law. The course introduces the fundamental concepts of elasticity including Young's Modulus and Poisson ratio. The course then uses these descriptions to show how to solve a range of stress analysis problems including plane frames, stress and strain, pressure vessels and beams.

Language(s) of Instruction

English

Host Institution Course Number

MECH40005

Host Institution Course Title

STRESS ANALYSIS 1

Host Institution Course Details

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

Host Institution Campus

Imperial College London

Host Institution Faculty

Faculty of Engineering

Host Institution Degree

Host Institution Department

Department of Mechanical Engineering

Course Last Reviewed

2021-2022

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