COURSE DETAIL

DYNAMICS
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 122
UCEAP Course Suffix Y
UCEAP Official Title DYNAMICS
UCEAP Transcript Title DYNAMICS
UCEAP Quarter Units 5.00
UCEAP Semester Units

3.30

Course Description

This course enables students to master essential topics in vibrations and dynamics and contributes to the development of their analytical, design, and communication skills. Upon completion of the course, students are able to discuss the dynamical behavior of one-degree-of-freedom dynamical systems in general terms using the concepts of natural frequency, damping, free response, forced response, transmissibility, isolation, phasor diagrams, and Bode plots; discuss the dynamical behavior of multi-degree-of-freedom systems in terms of natural frequencies and associated mode shapes; use the concept of modal summation; discuss the concepts of energy-work done; and understand linear momentum, linear impulse, angular momentum, angular impulse, and simple gyroscopic motion.

Language(s) of Instruction
English

Host Institution Course Number
MECH50008

Host Institution Course Title
DYNAMICS

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
2023-2024

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