COURSE DETAIL

CLASSICAL PHYSICS
Country United Kingdom - England
Host Institution University of London, Queen Mary
Program(s) University of London, Queen Mary
UCEAP Course Level Lower Division
UCEAP Subject Area(s) Physics
UCEAP Course Number
UCEAP Course Suffix
UCEAP Official Title CLASSICAL PHYSICS
UCEAP Transcript Title CLASSICAL PHYSICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
This course reviews the classical understanding of space, time, and motion: the fundamental physical principles that underpin modern physics. It provides an overview of classical mechanics, looking at kinematics, dynamics, rotational motion; dynamics of a rigid body, the gyroscope, gravity, and planetary orbits. The course explores oscillatory phenomena and wave motion, which occur throughout nature in fields from biology to quantum mechanics. Topics include the 1D wave equation; free, damped, forced, and coupled oscillations; resonance and driven simple harmonic motion; calculations of normal modes for coupled oscillators; waves in linear media including gases and solids; dispersion, phase, and group velocity; interference, beats, and standing waves; simple diffraction phenomena; and the Doppler effect in sound and light.

Language(s) of Instruction
English

Host Institution Course Number
SPA4401

Host Institution Course Title
CLASSICAL PHYSICS

Host Institution Campus
Queen Mary University of London

Host Institution Faculty

Host Institution Degree

Host Institution Department
Physics and Astronomy

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