## **COURSE DETAIL**

## **GENERAL PHYSICS 1 WITH CALCULUS**

Country

Hong Kong

Host Institution Hong Kong University of Science and Technology (HKUST)

**Program(s)** Hong Kong Summer, HKUST

UCEAP Course Level Lower Division

UCEAP Subject Area(s) Physics

UCEAP Course Number

**UCEAP Course Suffix** 

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UCEAP Official Title GENERAL PHYSICS 1 WITH CALCULUS

UCEAP Transcript Title PHYSICS I

**UCEAP Quarter Units** 4.50

**UCEAP Semester Units** 

## **Course Description**

This course introduces general topics in physics employing a calculus-based approach. Key course topics include: motions and Newton's laws, work and energy, conservation of energy and momentum, rotation, rigid body, simple harmonic and damped oscillations, forced oscillations, standing waves and sound waves, kinetic theory and the laws of thermodynamics. Prerequisite: single-variable calculus. Text: Young and Freedman, UNIVERSITY PHYSICS. Assessment: homework (10%), quizzes (40%), final exam (50%)

Language(s) of Instruction

English

Host Institution Course Number PHYS1112

Host Institution Course Title GENERAL PHYSICS 1 WITH CALCULUS

Host Institution Campus HKUST International Summer School

**Host Institution Faculty** 

**Host Institution Degree** 

Host Institution Department Science

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