

COURSE DETAIL

INTRODUCTION TO FLUID DYNAMICS

Country

Hong Kong

Host Institution

Hong Kong University of Science and Technology (HKUST)

Program(s)

Hong Kong University of Science and Technology

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mechanical Engineering

UCEAP Course Number

126

UCEAP Course Suffix**UCEAP Official Title**

INTRODUCTION TO FLUID DYNAMICS

UCEAP Transcript Title

FLUID DYNAMICS

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

This is a course examining topics in fluid dynamics. Course topics include: Lagrangian and Eulerian methods for the flow description; derivation of the Euler and Navier-Stokes equations; sound wave and Mach number; 2D irrotational flow; elements of aerofoil theory; water wave dispersion relation; shallow water waves; ship wave pattern; dynamics of real fluid, stokes flow and boundary layer theory.

Language(s) of Instruction

English

Host Institution Course Number

MATH4326

Host Institution Course Title

INTRODUCTION TO FLUID DYNAMICS

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematics

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