

COURSE DETAIL

FLUID MECHANICS 2

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 Chemical Engineering

UCEAP Course Number

137

UCEAP Course Suffix**UCEAP Official Title**

FLUID MECHANICS 2

UCEAP Transcript Title

FLUID MECHANICS 2

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

The topics covered on this course include dimensional analysis, the mass-conservation and momentum-balance principles applied to a fluid particle, the differential form of the governing equations (Navier-Stokes), compressible flows (speed of sound, Mach cone, isentropic-flow relations and converging-diverging nozzles), as well as incompressible flows with exact (Couette-Poiseuille flows) and approximate (boundary layers, Blasius solution, lubrication) solutions, and an introduction to turbulence.

Language(s) of Instruction

English

Host Institution Course Number

MECH50010

Host Institution Course Title

FLUID MECHANICS 2

Host Institution Campus

Imperial College London

Host Institution Faculty

Faculty of Engineering

Host Institution Degree

Host Institution Department

Department of Mechanical Engineering

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