

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)

Chemical Engineering

UCEAP Course Number

121

UCEAP Course Suffix**UCEAP Official Title**

FLUID MECHANICS 2

UCEAP Transcript Title

FLUID MECHANICS 2

UCEAP Quarter Units

2.50

UCEAP Semester Units

1.70

Course Description

This course addresses conservation of mass; concept of stream function; conservation of momentum; derivation of governing equations using vector calculus and concepts of stress tensors; comparison with control volume approach; direct analytical solution of equations for unidirectional flows in (micro-)channels, pipes, and falling films; extension to flows that are not unidirectional; evolving flows; and concept of boundary layers. Example problems include unsteady shear flows, Blasius boundary layer, and jets.

Language(s) of Instruction

English

Host Institution Course Number

CENG95004

Host Institution Course Title

FLUID MECHANICS 2

Host Institution Campus

Imperial College London

Host Institution Faculty

Host Institution Degree

Host Institution Department

Chemical Engineering

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