COURSE DETAIL

COMPUTATIONAL METHODS IN FLUID MECHANICS
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mechanical Engineering
UCEAP Course Number 133
UCEAP Course Suffix
UCEAP Official Title COMPUTATIONAL METHODS IN FLUID MECHANICS
UCEAP Transcript Title COMP FLUID MECHANIC
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course introduces students to the principles and methodologies under the hood of typical CFD software. Major topics include numerical discretization, stability and accuracy analysis, and methods for solving incompressible viscous fluid flow and convective heat transfer problems. Students write a code/script to solve simple fluid problems. Students gain a working knowledge of the basic principles of fluid flow simulation and implementation of computational methods in solving complex problems. The course requires students to take prerequisites.

Language(s) of Instruction
English

Host Institution Course Number
ME4233

Host Institution Course Title
COMPUTATIONAL METHODS IN FLUID MECHANICS

Host Institution Course Details
https://nusmods.com/courses/ME4233/computational-methods-in-fluid-mechanics

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mechanical Engineering

Course Last Reviewed
2024-2025

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