# COURSE DETAIL

| ADVANCED COMPUTER APPLICATIONS IN ENGINEERING |
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| **Country**<br>United Kingdom - England |
| **Host Institution**<br>University College London |
| **Program(s)**<br>University College London |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Mechanical Engineering |
| **UCEAP Course Number**<br>162 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>ADVANCED COMPUTER APPLICATIONS IN ENGINEERING |
| **UCEAP Transcript Title**<br>ADV COMP APP: ENGR |
| **UCEAP Quarter Units**<br>6.00 |
| **UCEAP Semester Units**<br>4.00 |

**Course Description**

This course provides an understanding of the principles underpinning finite element analysis (FEA) and computational fluid dynamics (CFD). Lectures include basics of finite element method and current problems, challenges, insights, developments, etc., relevant to various types of applications of CFD in industry and research: Aerodynamics, F1 racing, gas turbines, internal combustion engines, weather forecasting, heat transfer, fundamental turbulence modelling, etc.

**Language(s) of Instruction**
English

**Host Institution Course Number**
MECH0059

**Host Institution Course Title**
ADVANCED COMPUTER APPLICATIONS IN ENGINEERING

**Host Institution Course Details**
https://www.ucl.ac.uk/module-catalogue/modules/MECH0059

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**
Mechanical Engineering

**Course Last Reviewed**
2024-2025

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