

COURSE DETAIL

INDUSTRIAL APPLICATIONS:MODELLING AIRCRAFT ICING (LEVEL 2)

Country

United Kingdom - England

Host Institution

University College London

Program(s)

Summer at University College London

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Physics Mathematics Engineering

UCEAP Course Number

130

UCEAP Course Suffix

S

UCEAP Official Title

INDUSTRIAL APPLICATIONS:MODELLING AIRCRAFT ICING (LEVEL 2)

UCEAP Transcript Title

AIRCRAFT ICING

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course is in the interdisciplinary field of icing in relation to aircraft. Ultimately, this course will draw from mathematics, physics, chemistry and engineering to provide attendees with a broad overview of the field of aircraft icing, and how the problem may be approached mathematically. This involves understanding the problem, discussing the current state of engineering solutions, and study of how mathematics can help to improve, enhance and further this field. Modelling of this phenomena is a threefold approach. Firstly, the trajectory of particles within the fluid flow concerning an oncoming aircraft is calculated. Secondly, the behavior and mechanics of impinging particles (particles that make contact with the aircraft) needs to be understood. Thirdly, how ice builds up on a surface alongside the possibility of it shedding are important. This course serves as an introduction to understanding this field and the analytical modelling of this problem.

Language(s) of Instruction

English

Host Institution Course Number

ISSU0082

Host Institution Course Title

INDUSTRIAL APPLICATIONS:MODELLING AIRCRAFT ICING (LEVEL 2)

Host Institution Course Details

<https://www.ucl.ac.uk/prospective-students/summer-school/modules/industrial-app...>

Host Institution Campus

Bloomsbury

Host Institution Faculty

Host Institution Degree

Bachelors

Host Institution Department

Department of Mathematics

Course Last Reviewed

2022-2023

[Print](#)