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 Campus
Bloomsbury

Host Institution Faculty

Host Institution Degree
Bachelors

Host Institution Department
Department of Mathematics

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