

## The Hong Kong University of Science and Technology

Introduction to Aerospace Engineering

MECH1907

3 Credits

Pre-requisite/Co-requisite: NO

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### Course Description

The overarching objective of the course is introducing the students to the field of aerospace engineering, including working vocabulary of the field, basic principles in key disciplines of aerospace systems, and interconnections among the various disciplines. This course covers major disciplines in aerospace engineering, such as aerodynamics, propulsion, aircraft performance, space engineering (astronautics), and aerospace systems engineering. In addition, this course aims to introduce aerospace engineering from a modern perspective. The materials will also cover the latest development trends in aerospace engineering, such as systems design and optimization, data-driven modeling, sustainable aviation, advanced air mobility, space logistics, etc.

### Assessments:

Assessment Task	Contribution to Overall Course grade (%)
Homework Assignments	30%
Midterm Exam	30%
Final Exam	40%
Class Participation (Extra)	5%

### Required Texts and Materials

The course will mostly follow textbook Introduction to Flight by John D. Anderson and Mary L. Bowden. The latest edition is the 9th Edition, yet some earlier versions should contain similar content. For some earlier versions, you can find the physical copies at HKUST library or PDF versions online. In principle, the lecture notes should contain all the materials needed for the course, and therefore reading the textbook is not compulsory.