Overview

This course covers introductory and intermediate topics related to analysis and design of airframes:

**Aerospace Materials and their Properties**
- Lightweight Materials - Alloys and Composites
- Tensors - Stress, Strain, Invariants
- Failure Prediction
- Material Degradation - Fatigue, Corrosion, Wear
- Analysis of Composite Materials

**Classical Airframe Analysis**
- Airframe Loads
- Stressed Skin Design Philosophy
- Role of Airframe Components
- Thin-walled Approximation
- Structural Idealisation
- Analysis of Indeterminate Trusses
- Bending, Shear and Torsion of Complex Beams
- Detailed Stressing - Joints and Cut-outs

**Structural Instability and Aeroelasticity**
- Buckling of Columns and Plates
- Stiffened Panel Analysis and Design
- Aeroelasticity - Divergence, Control Reversal and Flutter
**Faculty**
Faculty of Engineering

**School**
School of Mechanical and Manufacturing Engineering

**Study Level**
Undergraduate

**Offering Terms**
Term 1

**Campus**
Kensington

**Delivery Mode**
Fully on-site

**Indicative contact hours**
5

**Timetable**
Visit timetable website for details
Conditions for Enrolment

Prerequisite: ENGG2400 OR MMAN2400 OR CVEN2301
Course Outline

To access course outline, please visit:

AERO3410 Course Outline
## Fees

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<td>Commonwealth Supported Students</td>
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<tr>
<td>Domestic Students</td>
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<td>International Students</td>
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**DISCLAIMER**

Please note that the University reserves the right to vary student fees in line with relevant legislation. This fee information is provided as a guide and more specific information about fees, including fee policy, can be found on the [fee website](#).

For advice about fees for courses with a fee displayed as "Not Applicable", including some Work Experience and UNSW Canberra at ADFA courses, please contact the relevant Faculty.

Where a Commonwealth Supported Students fee is displayed, it does not guarantee such places are available.
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)
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Authorised by Deputy Vice-Chancellor (Academic)
CRICOS Provider Code 00098G
ABN: 57 195 873 179