



Course

# Fundamentals of Flight

ZEIT 2502

6 Units of Credit

## Overview

This course introduces the fundamentals of aerodynamics, aircraft performance and stability. Students will be introduced to basic aeronautical concepts such as parts of the aircraft, properties of the atmosphere, altimetry and airspeed, lift and drag. Starting from the equations of continuity, momentum and energy, fluid flow equations for subsonic and supersonic flow will be derived and applied to aviation problems. Basic aerodynamic topics such as boundary layers, laminar and turbulent flow will be explained. Dynamic similitude and modelling of aircraft will be developed including flow in subsonic and supersonic wind tunnels. This course will explore aircraft performance in various equilibrium flight conditions such as level flight, climbing, turning and gliding. The concepts of aircraft stability will be introduced including derivation of the contribution of various aircraft components to overall stability.

**Faculty**

[UNSW Canberra at ADFA](#)

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**School**

[UC Engineering & Information Technology](#)

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**Study Level**

Undergraduate

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**Offering Terms**

Semester 2

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**Campus**

Canberra

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**Indicative contact hours**

3

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**Timetable**

[Visit timetable website for details](#)

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## **Conditions for Enrolment**

Prerequisite: ZPEM1302 or ZPEM1304

## **Course Outline**

To access course outline, please visit:

[ZEIT2502 Course Outline](#)

## Fees

Commonwealth Supported Students Not Applicable

Domestic Students Not Applicable

International Students Not Applicable

### **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)

[Pre-2019 Handbook Editions](#)

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Authorised by Deputy Vice-Chancellor (Academic)

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