



Specialisation

Aviation

ZEITS1

48 Units of Credit

Overview

The Aviation major provides the student with a deep understanding of the various technological and human systems that contribute to the safe and efficient operation of aircraft and the aviation environment. A key element in this major is the focus on the role of people as key components in a technologically advanced and complex aviation environment. There is a particular emphasis on the role of human operators (e.g. pilots, air combat officers and air traffic controllers) in aviation infrastructure and safety management systems.

The Aviation major is designed for potential pilots, air combat officers and air traffic controllers entering the Australian Defence Force.

Faculty

UNSW Canberra at ADFA

School

UC Engineering & Information Technology

Study Level

Undergraduate

Minimum Units of Credit

48

Specialisation Type

Major

Learning Outcomes

1. Explain the pivotal role of the human in the aviation system.

Leaders

Global Citizens

Scholars

2. Analyse aviation and aircraft as systems, in an environment that involves interaction between communication, navigation and surveillance as well as Air Traffic Control operations and procedures.

Scholars

Professionals

3. Demonstrate a high level understanding of the factors influencing aviation safety, including aircrew resource management, aircraft operations and maintenance, risk management, airspace, and weather and the environment, with an emphasis on human performance.

Professionals

Global Citizens

Scholars

Graduate Capabilities:

For more information on Graduate Capabilities, please click on this [link](#).

Available in Program(s)

Program(s) in which this major is available

Bachelor of Science - **BSc**

4410 Science

Faculty: UNSW Canberra at ADFA

Campus: Canberra

Units of Credit: 144

Typical Duration: 3 Years

Bachelor of Science - **BSc**

4463 Science (CDF)

Faculty: UNSW Canberra at ADFA

Campus: Canberra

Units of Credit: 144

Typical Duration: 3 Years

Specialisation Structure

Students must complete 48 UOC.

Level 1 Core Courses

Students must take 18 UOC of the following courses.

ZFIT1800 | 6 UOC

Introduction to Aviation Technology

ZPEM1501 | 6 UOC

Physics 1A: Mechanics, Waves and Thermodynamics

ZPEM1502 | 6 UOC

Physics 1B: Electromagnetism and Modern Physics

Level 2 Core Courses

Students must take 6 UOC of the following courses.

ZFIT2502 | 6 UOC

Fundamentals of Flight

Level 2 Prescribed Electives

Students must take a minimum of 6 UOC of the following courses

ZFIT2802 | 6 UOC

Aircraft Systems for Aviators

ZFIT2803 | 6 UOC

Aviation Safety

Level 3 Prescribed Electives

Students must complete 3 (18 UOC) of the following courses.

Note: Students wishing to do ZFIT3804 Behavioural Science Project in their third year

must take ZPEM2302 Mathematics Tools for Science.

ZEIT3801 | 6 UOC

Advanced Aviation Safety

ZEIT3803 | 6 UOC

Air Traffic Management

ZEIT3804 | 6 UOC

Behavioural Science Project and Practical Experience

ZEIT3805 | 6 UOC

Airport Operations and Systems

ZPEM3204 | 6 UOC

Environmental Hazards

Double major in Physics and Aviation

For students doing a double major in Physics and Aviation, the two Level 1 Mathematics courses are to be part of the Aviation major since the Level 1 Physics courses are counted towards the Physics major.

Level 1 Mathematics Requirement

It is a requirement for entry to Levels 2 and 3 of this Major that students complete 12 UOC of Level 1 Mathematics courses, although these courses are not a defined part of the Major. Students should use the elective space in their program to complete 12 UOC of Mathematics courses.

Students must complete:

ZPEM1301 - Mathematics 1A (6 UOC) and ZPEM1302 - Mathematics 1B (6 UOC)

OR

ZPEM1303 - Engineering Mathematics 1A (6 UOC) and ZPEM1304 - Engineering Mathematics 1B (6 UOC)

Enrolment Disclaimer

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.

Additional Information

Honours

Students must have achieved at least a credit average (65) across the entire undergraduate program including a credit average over the Level III core courses or equivalent courses.

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)

CRICOS Provider Code 00098G

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