

In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.



AVAT13010 Aerodynamics and Aircraft General Knowledge (Air Transport Pilot Licence) Term 3 - 2024

Profile information current as at 13/12/2025 06:05 pm

All details in this unit profile for AVAT13010 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

Aerodynamics and Aircraft General Knowledge (Air Transport Pilot Licence) will provide you with advanced knowledge of transonic and supersonic aerodynamics, and heavy aircraft power plants and systems. You will cover the aeronautical knowledge requirements of the Civil Aviation Safety Authority Air Transport Pilot Licence (ATPL) aircraft general knowledge syllabus. You will study high speed aerodynamics and aircraft electrical and mechanical systems. Ice and rain protection systems will be examined. You will also study navigation and automatic control systems.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisites: AVAT12006 Aerodynamics (Commercial Pilot Licence) and AVAT12007 General Aeronautical Knowledge (Commercial Pilot Licence).

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 3 - 2024

No offerings for AVAT13010

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

[Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

[Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Unit Coordinator

Feedback

Unit lecturer was not able to teach the material after the term had started

Recommendation

The lecturer is redeveloping the material, which should improve the quality of the learning process and understanding of the high-level content.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Analyse the aerodynamic forces and performance in normal, asymmetric and high speed flight
2. Apply the principles of aerodynamics to high-speed flight
3. Evaluate large transport aircraft electrical and mechanical systems
4. Compare the operation and construction of turbo-fan and turbo-prop power plants
5. Examine the function of engine instruments
6. Explain the function and purpose of a large transport aircraft's automatic flight control system
7. Describe the principles of operation of a Global Navigation Satellite System.

N/A

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes						
	1	2	3	4	5	6	7
1 - Communication	•	•	•	•	•	•	•
2 - Problem Solving	•	•				•	
3 - Critical Thinking	•	•	•		•	•	
4 - Information Literacy	•	•	•	•			
5 - Team Work							
6 - Information Technology Competence							
7 - Cross Cultural Competence							•
8 - Ethical practice			•				
9 - Social Innovation							
10 - Aboriginal and Torres Strait Islander Cultures							

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Written Assessment - 40%	•	•	•	•		•	•	•		
2 - Examination - 60%	•	•	•				•	•		

Textbooks and Resources

Textbooks

Information for Textbooks is not yet available.

The textbooks have not yet been finalised.

IT Resources

You will need access to the following IT resources:

Referencing Style

Information for Referencing Style has not been released yet.

This unit profile has not yet been finalised.

Teaching Contacts

Information for Teaching Contacts has not been released yet.

This unit profile has not yet been finalised.

Assessment Tasks

Information for Assessment Tasks has not been released yet.

This unit profile has not yet been finalised.

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.