



AVAT12008 Meteorology (Commercial Pilot Licence)

Term 1 - 2018

Profile information current as at 05/07/2022 05:28 pm

All details in this unit profile for AVAT12008 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

Meteorology (Commercial Pilot Licence) will provide you with knowledge of low altitude meteorology applicable to aviation operations. You will cover the aeronautical knowledge requirements of the Civil Aviation Safety Authority Commercial Pilot Licence (CPL) meteorology syllabus. You will study the atmosphere, its structure, composition and dynamics. You will learn how temperature, pressure and density vary with altitude and how this affects your ability to pilot an aircraft. Cloud types and their associated weather will be identified and classified. You will also learn how to read meteorological charts.

Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisites: AVAT11002 Basic Aeronautical Knowledge; AVAT11003 Basic Aeronautical Practice and AVAT11005 Aviation Physics

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 1 - 2018

- Bundaberg
- Cairns
- Distance

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

1. **Group Work**

Weighting: 40%

2. **Examination**

Weighting: 60%

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](#).

Unit Learning Outcomes

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

1. Describe the model of International Standard Atmosphere
2. Explain atmospheric characteristics and how temperature, pressure and density vary with altitude
3. Classify cloud types and their associated weather
4. Explain the motion of air masses and fronts, and the weather associated with each type
5. Identify features on low level aviation meteorological charts
6. Decode aviation meteorological forecasts and reports.

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
1 - Group Work - 40%	•	•	•	•	•	•
2 - Examination - 60%	•	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - Group Work - 40%	•	•	•	•	•	•	•	•		
2 - Examination - 60%	•	•	•	•		•		•		

Textbooks and Resources

Textbooks

AVAT12008

Prescribed

Meteorology

Edition: Latest (Most recent offered)

Authors: David Robson, Peter Whellum, Melanie Waddell

Cheltenham , Victoria , Australia

ISBN: 1 875537 84 8

Binding: Other

Additional Textbook Information

You may also order direct from Aviation Theory Centre. It can be accessed here:

<https://aviationtheory.net.au/shop/private-and-commercial/meteorology/> This is a picture of the textbook for your reference: https://www.conceptaviation.com.au/image/ex-large/2711_meteorology-aviation-theory-centre.jpg

[View textbooks at the CQUniversity Bookshop](#)

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

John Blair Unit Coordinator

j.blair@cqu.edu.au

Schedule

Week 1 - 05 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
The Atmosphere	The Atmosphere	

Week 2 - 12 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
The Atmosphere	The Atmosphere	

Week 3 - 19 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Clouds	Clouds	

Week 4 - 26 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Precipitation	Precipitation	

Week 5 - 02 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Thunderstorms	Thunderstorms	
Vacation Week - 09 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Week 6 - 16 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Icing	Icing	
Week 7 - 23 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Visibility	Visibility	
Week 8 - 30 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Motion in the Atmosphere (Winds)	Motion in the Atmosphere	
Week 9 - 07 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Winds	Motions in the Atmosphere	Flight Planning with Weather Due: Week 9 Monday (7 May 2018) 9:00 am AEST
Week 10 - 14 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Synoptic Meteorology	Synoptic Meteorology	
Week 11 - 21 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Climatology of Australia	Climatology of Australia	
Week 12 - 28 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Weather Services, Reports, and Forecasts	Weather Services, Reports, and Forecasts	
Review/Exam Week - 04 Jun 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Exam Week - 11 Jun 2018		
Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

I'm the Unit Coordinator and Aviation Discipline Lead. I look forward to traveling with you on your education journey. Let me know if you have any questions. Please see my profile below.
<https://handbook.cqu.edu.au/profiles/view/92>

Assessment Tasks

1 Flight Planning with Weather

Assessment Type

Group Work

Task Description

TASK DESCRIPTION

This assessment is designed to strengthen your understanding of flight planning and navigation.

In order to achieve this you will need to:

- Use maps along with computations learned throughout this course to plan a flight for weather requirements to given points and back to the starting point.
- Integrate weather restrictions as well as environmental conditions into the flight plan
- prepare the map with weather requirements and limitations.

Your map and flight plan must be produced in electronic format (either as (a) a single page word-processed document, (b) single page Publisher document saved in a pdf format, or (c) as a single PowerPoint slide saved in a pdf format) and should be submitted through the assessment link in Moodle, by uploading your file following the on-screen instructions. Note; that all submissions are processed through the similarity detection software (called Turnitin), hence the requirement to submit the Publisher or Powerpoint documents as pdf files. You must ensure that all of the work is your own, in line with University requirements.

Assessment Due Date

Week 9 Monday (7 May 2018) 9:00 am AEST

Submit in Turnitin in Moodle

Return Date to Students

Week 12 Monday (28 May 2018)

Weighting

40%

Assessment Criteria

Successfully plan flight according to requirements in Tutorial 9 exercise. Using information from the slides you will plan the proposed flight from point A to B to C and back to point A. The map is also in Week 7 Tutorial. This exercise will give you practice in-flight planning practice for weather. You will be assessed on a Pass/Fail grading. The main purpose of this assessment is to assess your ability to do the tutorial. Each leg will have weather forecasts and you will determine the minimum requirements for each leg. Any deviations or corrections need to be noted by the student. You will list all the instrument requirements of the aircraft and for the stated weather conditions.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online Group

Submission Instructions

This can be a group or individual assignment although it must be submitted individually through Moodle.

Learning Outcomes Assessed

- Describe the model of International Standard Atmosphere
- Explain atmospheric characteristics and how temperature, pressure and density vary with altitude
- Classify cloud types and their associated weather
- Explain the motion of air masses and fronts, and the weather associated with each type
- Identify features on low level aviation meteorological charts
- Decode aviation meteorological forecasts and reports.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

Examination

Outline

Complete an invigilated examination.

Date

During the examination period at a CQUniversity examination centre.

Weighting

60%

Length

90 minutes

Exam Conditions

Open Book.

Materials

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?



Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem