



AVAT12011 Aviation Human Factors (Commercial Pilot Licence)

Term 2 - 2020

Profile information current as at 05/05/2024 06:55 pm

All details in this unit profile for AVAT12011 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

Aviation Human Factors (Commercial Pilot Licence) will provide you with knowledge of human performance and human limitations associated with subsonic, low altitude flight in small commercial aircraft. You will also learn about the importance of organisational culture and national culture when operating in the aviation industry. You will cover the aeronautical knowledge requirements of the Civil Aviation Safety Authority Commercial Pilot Licence, Human Factors Syllabus. You will be presented with some of the medical challenges of subsonic speed and low altitude flight. You will examine problems of perception, cognition and behaviour related to flight and the errors that are caused by human limitations. You will reflect on the success of crew resource management strategies to improve pilot judgement and decision making and learn about the principles of threat and error management.

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 AVAT11006 Aviation Law

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 2 - 2020

- Bundaberg
- Cairns
- Online

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. **Written Assessment**

Weighting: 40%

2. **Online Test**

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](#).

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 Students/Lecturer

Feedback

Students expressed general satisfaction with the presentation and material for the unit. Lecturer considers there is a need to encourage discussion during the lecture.

Recommendation

It is the intention of the lecturer to generate open discussion with the class when possible. Additionally the unit material needs to be reviewed and updated to ensure students acquire the broad knowledge of the subject.

Unit Learning Outcomes

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

1. Explain the medical and physiological aspects related to flight
2. Examine human limitations of perception, cognition, and information processing limitations related to flight
3. Describe human behaviour limitations and errors applicable to flight
4. Reflect on the resource management, judgement, and decision making required of a professional pilot
5. Discuss the principles of threat and error management.

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
1 - Written Assessment - 40%	•	•	•	•	•
2 - Online Test - 60%	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving	•	•	•	•	•
3 - Critical Thinking	•	•	•	•	•

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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 - Online Test - 60%	•	•	•			•				

Textbooks and Resources

Textbooks

AVAT12011

Prescribed

Human Factors for the Private & Commercial Pilot Licences

Edition: 4th

Authors: David Robson

Aviation Theory Centre Pty Ltd

ISBN: 978-1-875537-77-8.

Binding: Paperback

Additional Textbook Information

If you prefer to study with a paper copy, they can be purchased at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code). eBooks can be purchased at the publisher's website.

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

Josaphine Seale Unit Coordinator
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Aruna Ranganathan Unit Coordinator
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Schedule

Week 1 - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Historical Overview of Human Factors in Aviation The Human Body		Lecture and Tutorial

Week 2 - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Human Capabilities and Performance Health and Well-being		Lecture and Tutorial

Week 3 - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Vision, Hearing and Balance		Lecture and Tutorial

Week 4 - 03 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Fatigue and Stress		Lecture and Tutorial

Week 5 - 10 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Decision Making and Automation in Aviation		Lecture and Tutorial

Vacation Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Vacation		

Week 6 - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Training, Pilot Performance Teamwork, Crew Resource Management		Lecture and Tutorial

Week 7 - 31 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Flight Deck Design, Displays and Controls		Lecture and Tutorial

Week 8 - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Flight Simulation and Error Management

Lecture and Tutorial

Week 9 - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Threat Management, Crew co-ordination and Enforcement Bodies		Lecture and Tutorial

Week 10 - 21 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Information Resources, Air Traffic Control, Meteorology and Maintenance		Lecture and Tutorial

Week 11 - 28 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Accident/Incident Analysis, Investigation and Responsibilities		Lecture and Tutorial

Week 12 - 05 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
First Aid, Survival and Security		Lecture and Tutorial

Review/Exam Week - 12 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Review		Review

Exam Week - 19 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

No Assessment Title

Assessment Type

Written Assessment

Task Description

No Assessment Task Description

Assessment Due Date

Return Date to Students

Weighting

40%

Assessment Criteria

No Assessment Criteria

Referencing Style

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

Submission

No submission method provided.

Learning Outcomes Assessed

- Explain the medical and physiological aspects related to flight
- Examine human limitations of perception, cognition, and information processing limitations related to flight
- Describe human behaviour limitations and errors applicable to flight
- Reflect on the resource management, judgement, and decision making required of a professional pilot
- Discuss the principles of threat and error management.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

No Assessment Title**Assessment Type**

Online Test

Task Description

No Assessment Task Description

Assessment Due Date**Return Date to Students****Weighting**

60%

Assessment Criteria

No Assessment Criteria

Referencing Style

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

Submission

No submission method provided.

Learning Outcomes Assessed

- Explain the medical and physiological aspects related to flight
- Examine human limitations of perception, cognition, and information processing limitations related to flight
- Describe human behaviour limitations and errors applicable to flight
- Reflect on the resource management, judgement, and decision making required of a professional pilot
- Discuss the principles of threat and error management.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Technology Competence

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