



AVAT13011 Aviation Human Factors (Air Transport Pilot Licence)

Term 1 - 2019

Profile information current as at 02/05/2024 02:17 pm

All details in this unit profile for AVAT13011 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.

Corrections

Unit Profile Correction added on 06-05-20

Due to COVID-19, invigilated examinations in 2020 Term 1 have been cancelled. In this unit, the exam has been replaced by an online test.

More details will be available on Moodle. The learning outcomes assessed are unchanged.

General Information

Overview

Aviation Human Factors (Air Transport Pilot Licence) will provide you with advanced knowledge of human performance and human limitations associated with high speed, high altitude, multi-crew flight in heavy air transport aircraft. You will also learn about the importance of organisational culture and national culture when operating in the global aviation industry. You will cover the aeronautical knowledge requirements of the Civil Aviation Safety Authority Air Transport Pilot Licence Human Factors syllabus. You will be presented with some of the medical challenges of high speed, high 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 analyse the principles of threat and error management.

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

Prerequisite: AVAT12011 Aviation Human Factors (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 1 - 2019

- 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. **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. Classify the physiological conditions related to high altitude flight
2. Investigate human limitations of perception, cognition and information processing related to multi-crew
3. Interpret human behaviour limitations and errors applicable to multi-crew flight
4. Reflect on the crew resource management, judgement and decision making required of a professional pilot
5. Analyse critically 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 - Examination - 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	•	•	•	•	•
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

There are no required textbooks.

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 - 11 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Human Factors introduction and fundamentals	Human Factors introduction and fundamentals	

Week 2 - 18 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Human Factors management and organisation	Human Factors management and organisation	

Week 3 - 25 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Human Factors SHELL model	Human Factors SHELL model	

Week 4 - 01 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Crew Resource Management (CRM)	Crew Resource Management (CRM)	

Week 5 - 08 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Training relevance and Threat and Error Management (TEM)	Training relevance and Threat and error Management (TEM)	

Vacation Week - 15 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 22 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Cockpit design and advanced technology cockpit

Cockpit design and advanced technology cockpit

Week 7 - 29 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Automation - use and misunderstanding	Automation - use and misunderstanding	

Week 8 - 06 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Communications and navigation surveillance	Communications and navigation surveillance	

Week 9 - 13 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Workload	Workload	Assignment submission
		Written Assignment Due: Week 9 Monday (13 May 2019) 11:45 am AEST

Week 10 - 20 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Investigations	Investigations	

Week 11 - 27 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
CASA and regulatory process	CASA and regulatory process	

Week 12 - 03 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic
Revision	Revision	

Review/Exam Week - 10 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 17 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Term Specific Information

I am the Unit Coordinator and lecturer for this subject.

During this term please contact me, if and when, you feel it is necessary for you to progress, successfully, in this unit.

John Blair

Assessment Tasks

1 Written Assignment

Assessment Type

Written Assessment

Task Description

This assignment aims to reinforce the Human Factors material covered in the first 9 weeks of this unit. Specifically, students are required to research, analyze and report on Human Factors influencing the safety of aviation operations in Australia.

Students must understand and express detailed knowledge of the Human Factors influence on aviation personell and their operation of commercial aircraft.. Additionally, awareness of adverse outcomes that

can arise from non-compliance with the guidelines and policies relating to the application of Human Factors must be evident in your submission. Comprehension of responsibilities of pilots in the industry is essential for successful completion of this task.

Your assessment document must be produced in electronic form (either as (a) a single page word processed document, (b) a single page Publisher document saved in a PDF format, or (c) a single Power Point 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: all submissions are processed through the similarity detection software (called Turnitin) hence, the requirement to submit the Publisher or Power Point documents as PDF files.

You must ensure that all of the work submitted is your own, in line with University Policy requirements.

Assessment Due Date

Week 9 Monday (13 May 2019) 11:45 am AEST

Return Date to Students

Week 12 Monday (3 June 2019)

Weighting

40%

Minimum mark or grade

50%

Assessment Criteria

High distinction standard

- * the answer is very well written and clearly expressed
- * there is a demonstrated appreciation and understanding of the issues involved
- * the answer is well structured and logically organised
- * demonstrated mastery of referencing system
- * there is evidence of a comprehensive analysis of the issues
- * conclusions are backed by well-reasoned arguments demonstrating a detailed insight and analysis of issues
- * comprehensive coverage of all relevant issues

Distinction standard

- * the answer is well written and expressed
- * the answer is structured and logical
- * the issues have been reasonably well identified and appreciated
- * there is correct use of referencing
- * issues have been analysed
- ** there is a comprehensive coverage of the issues

Credit standard

- * the answer is generally well written and expressed
- * the answer is structured and sequential
- * referencing is satisfactory
- * issues are identified and addressed
- * there has been an attempt to analyse some of the issues
- * the coverage of issues is reasonably comprehensive often with a good treatment and analysis of particular points
- * depth of treatment is often lacking in some of the issues.

Pass standard

- * the answer is able to be followed and understood
- * the answer could perhaps be better organised and structured
- * the referencing may need improvement
- * issues may need to be identified and addressed in more depth
- * analysis when present may be incorrect
- * sometimes the conclusions reached are simple
- * there may be quantities of material of marginal relevance included in the answer.

Fail standard

- * the answer may be significantly short of the required length
- * the written expression is poor and difficult to understand
- * the answer is poorly organised
- * there has been a failure to identify and address the issues in the question
- * referencing is generally inadequate
- * the reasoning and application demonstrated is poor
- * frequently there is much irrelevant material.

Referencing Style

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

Submission

Online

Submission Instructions

via moodle

Learning Outcomes Assessed

- Classify the physiological conditions related to high altitude flight
- Investigate human limitations of perception, cognition and information processing related to multi-crew
- Interpret human behaviour limitations and errors applicable to multi-crew flight
- Reflect on the crew resource management, judgement and decision making required of a professional pilot
- Analyse critically the principles of threat and error management.

Graduate Attributes

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

120 minutes

Minimum mark or grade

50%

Exam Conditions

Closed Book.

Materials

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

Calculator - non-programmable, no text retrieval, silent only

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