AVAT12011 *Aviation Human Factors (Commercial Pilot Licence)*
Term 2 - 2019

Profile information current as at 26/04/2024 01:16 am

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, low altitude flight. You will examine problems of perception, cognition and behaviour related to flight and the errors that are cause 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 - 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. **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.

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 Moodle

Feedback

Since only two students undertook this subject, the one feedback was not made available to me.

Recommendation

Since no feedback has been made due to the very low number of enrollment (2 students enrolled), I would like to propose the present unit material remain until such time substantial feedback is available in future years.

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

— N/A Level	○ Introductory Level	○ Intermediate Level	● Graduate Level	○ Professional Level	○ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Group Work - 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	●	●	●	●	●

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

Textbooks and Resources

Textbooks

AVAT12011

Supplementary

HHuman Factors for the Private & Commercial Pilot Licences
Edition: 4th (2019)
Authors: David Robson
Aviation Theory Centre Pty Ltd,
Sydney , NSW , Australia
ISBN: ISBN 978-1-875537-77-8.
Binding: Hardcover

Additional Textbook Information

The REFERENCE BOOK for this subject is *Human Factors for the Private & Commercial Pilot Licences*, 4th Ed. David Robson, published by Aviation Theory Centre Pty Ltd, ISBN 978-1-875537-77-8.

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 - 15 Jul 2019

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

Week 2 - 22 Jul 2019

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

Week 3 - 29 Jul 2019

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

Week 4 - 05 Aug 2019

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

Week 5 - 12 Aug 2019

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

Vacation Week - 19 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Vacation		

Week 6 - 26 Aug 2019

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

Week 7 - 02 Sep 2019

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

Week 8 - 09 Sep 2019

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

Week 9 - 16 Sep 2019

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

Week 10 - 23 Sep 2019

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

Week 11 - 30 Sep 2019

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

Week 12 - 07 Oct 2019

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

Review/Exam Week - 14 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
Review		Review

Exam Week - 21 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic

John Blair - Lecturer contacts:
Email - j.blair@cqu.edu.au
Tel - 0740374752

Assessment Tasks

1 Written Assignment

Assessment Type
Group Work

Task Description
See Moodle for Specific Exercise.
This assignment is designed to assist retention of material provided during the first nine weeks of Human Factors in the Aviation Industry.
Additionally, students will be required to research and report issues relating to the Human Factors that influence flight deck operations in contemporary commercial aircraft operations. Specifically, elements of crew resource management, inter-crew communications, situational awareness and control and commands should be critically analysed to ensure safe and efficient operation of commercial aircraft.

Your assessment document must be produced in electronic form (either as (a) a single page word-processed document, (b) single page Publisher document saved in a PDF format, or (c) as 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: that 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 is your own, in line with the University Policy requirements.

Assessment Due Date

Return Date to Students

Weighting
40%

Minimum mark or grade
50%

Assessment Criteria
 Students will be provided with relevant criteria during lecture week 1.

Referencing Style

- Harvard (author-date)

Submission
Online

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
- 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
120 minutes

Minimum mark or grade
50% of overall marks allocated to the examination paper.

Exam Conditions
Closed 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