



# AVAT11010 Aviation Safety Fundamentals

## Term 1 - 2023

Profile information current as at 04/05/2024 02:59 pm

All details in this unit profile for AVAT11010 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

This unit will provide you with a broad understanding of the application of safety processes within the aviation industry. You will learn basic concepts of system safety as they developed alongside the aviation industry. You will also learn about standards and practices for safety management with reference to the International Civil Aviation Organization (ICAO) and CASA. You will recognize a systematic approach that is established using four main components including Safety Policy, Safety Assurance, Safety Risk Management, and Safety Promotion to manage safety and how human factors are related within the four components of safety. You will also develop a solid understanding of safety culture and its associated subcultures.

#### Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

#### Pre-requisites or Co-requisites

There are no requisites for this unit.

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 - 2023

- 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. **Online Quiz(zes)**

Weighting: 30%

#### 2. **Case Study**

Weighting: 30%

#### 3. **Online Test**

Weighting: 40%

### 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 Student evaluations

**Feedback**

Quizzes could include more feedback.

**Recommendation**

Improve quiz feedback to assist student learning.

## Unit Learning Outcomes

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

1. Describe the aviation industry organizational accident assessment process, including basic concepts of hazards, risks and losses.
2. Justify the development of contemporary safety management systems.
3. Explore applications of safety management used in aviation organizations.
4. Justify the importance of safety culture and sub-cultures to aviation safety management

N/A















## Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level	 Introductory Level	 Intermediate Level	 Graduate Level	 Professional Level	 Advanced Level
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### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Online Quiz(zes) - 30%	•	•	•	
2 - Case Study - 30%	•	•	•	•
3 - Online Test - 40%	•	•		•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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				

## 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: [American Psychological Association 7th Edition \(APA 7th edition\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Steve Leib** Unit Coordinator  
[s.leib@cqu.edu.au](mailto:s.leib@cqu.edu.au)

## Schedule

### Week 1 - 06 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Unit introduction		
Historical Overview of Aviation Human Factors	JR1	
Individual and organizational accidents	JW1	
Nature and variety of defences		

### Week 2 - 13 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Swiss Cheese Model		
Active failures and latent conditions	JR1	
Accident trajectory		

### Week 3 - 20 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Human contribution to accidents		
Human performance	JR4	
Processes underlying human performance	JW7	

### Week 4 - 27 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Group Presentations	N/A	

### Week 5 - 03 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Errors and successful actions	
Violations	JR4
Rule-related behaviors	JW9
Team Process	

#### Vacation Week - 10 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
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#### Week 6 - 17 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Error management	JR7	
Blame cycle		

#### Week 7 - 24 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
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CRM	JR9	
Engineering a safety culture	JW10	
Safety Subcultures		

#### Week 8 - 01 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Safety subcultures continued	JR9	
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#### Week 9 - 08 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
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SMS1	Reference materials provided	
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#### Week 10 - 15 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
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SMS2	Reference materials provided	
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#### Week 11 - 22 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
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SMS3	Reference materials provided	
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#### Week 12 - 29 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
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SMS4	Reference materials provided	
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#### Review/Exam Week - 05 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic
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#### Exam Week - 12 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic
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## Assessment Tasks

### 1 Quizzes

#### Assessment Type

Online Quiz(zes)

#### Task Description

There are 3 quizzes throughout this unit:

- Quiz 1 at the end of Week 2, covering basic safety concepts and SCM
- Quiz 2 at the end of Week 5, covering human contribution to accidents and performance concepts
- Quiz 3 at the end of Week 8, covering safety culture and safety subcultures

You have 30 minutes to complete each quiz, and only one attempt is permitted. Quizzes will open on Monday evenings in the week they are due and must be submitted by Friday at 5PM via the relevant portal in Moodle.

**Number of Quizzes**

3

**Frequency of Quizzes**

Other

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

30%

**Assessment Criteria**

Quizzes will be multiple choice and short answer.

**Referencing Style**

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Describe the aviation industry organizational accident assessment process, including basic concepts of hazards, risks and losses.
- Justify the development of contemporary safety management systems.
- Explore applications of safety management used in aviation organizations.

## 2 Swiss Cheese Model Case Study

**Assessment Type**

Case Study

**Task Description**

You will choose an airline or airport accident to research, and prepare a 5-10 minute presentation on a Swiss Cheese Model application of the accident for the class on Zoom during Week 4.

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

30%

**Assessment Criteria**

This assessment is worth 30 points:

- Background of the accident and accident narrative (10 points)
- Application of the Swiss Cheese Model, including active failures and latent conditions (10 points)
- Presentation is clear and easy to understand, delivery is smooth and prepared, and questions are answered appropriately (10)

**Referencing Style**

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

**Submission**

Online

**Submission Instructions**

Via Zoom in Week 4

**Learning Outcomes Assessed**

- Describe the aviation industry organizational accident assessment process, including basic concepts of hazards, risks and losses.
- Justify the development of contemporary safety management systems.
- Explore applications of safety management used in aviation organizations.
- Justify the importance of safety culture and sub-cultures to aviation safety management

## 3 Online Test

### Assessment Type

Online Test

### Task Description

This test will be due during exam week. It will only cover Safety Management Systems and Safety Culture concepts as discussed in Weeks 7-12.

You have up to 2 hours to complete the test, and only one attempt is permitted. The test will open on Monday evening in exam week and must be submitted by Friday at 5PM via the relevant portal in Moodle.

### Assessment Due Date

### Return Date to Students

### Weighting

40%

### Assessment Criteria

This test is a combination of multiple choice and short answer questions.

### Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

### Submission

Online

### Learning Outcomes Assessed

- Describe the aviation industry organizational accident assessment process, including basic concepts of hazards, risks and losses.
- Justify the development of contemporary safety management systems.
- Justify the importance of safety culture and sub-cultures to aviation safety management



## 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