AVAT13022 *Sustainable Aviation*

Term 2 - 2024

All details in this unit profile for AVAT13022 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 26-06-24

You need to complete the following assessments. Assessment 1 will be a quiz with 25% weighting, Assessment 2 will be an individual written assessment with 45% weighting, and Assessment 3 will be a poster presentation with 30% weighting. Please find below the details of the three assessments you need to complete:

Assessment 1 - Quiz

Weighting: 25%

Due: During lecture in Week 6

This will include 20 multiple-choice questions, covering content from Week 1 to Week 5. You will have 1 hour and 20 minutes to complete the Quiz. Close book is required. You can only attempt the quiz once!

Assessment 2 – Individual written assessment

Weighting: 45%

Due: 23:59 Friday of Week 10 (20th of September 2024 23:59)

This assessment is an individual task requiring the completion of a case study. The assessment should present a clear analysis and comparison of the sustainable strategies and current sustainable frameworks of selected aviation companies. The following parts should be addressed in this assessment:

Step 1. You need to choose either three Full-Service Carriers (FSCs) or three airports and review their sustainability reports from the past five years, along with their official website pages related to sustainability. It is important to select only one type, either airlines or airports.

Step 2. A comprehensive analysis of each airline's/ airport's sustainable strategies over the past five years should be conducted, considering environmental, social, and economic perspectives.

Step 3. Following Step 2, you need to analyze and compare the most up-to-date sustainable contributions and sustainability frameworks of the three airlines/ airports. Figures and tables can be used to support the comparison and analysis.

Step 4. Based on the analysis above, propose both short-term and long-term sustainable strategies for each airline/ airport.

The word limit for this assessment is 1,500 words (do not exceeding 2,000 words), including figures and tables but excluding the reference list. This case study should be written in essay format, including abstract, introduction, main sections, conclusion, limitation, and reference list.

CRITERIA: The assessment must be clearly written and well-structured, ensuring that all four steps are included. Do not use one sentence paragraphs or bullet points as you will lose points. Points will be deducted for not following APA guidelines, for Turnitin similarity scores above 15% that indicate improper paraphrasing (such as copied sentences or sentences with just one word changed), and for the use of AI tools. Additionally, providing incorrect information and data, insufficient analysis and comparison, and choosing both airlines and airports instead of one category will also result in point reduction. Checking the rubric carefully before staring your assessment.

Assessment 3 - Poster presentation

Weighting: 30%

Due: During lecture in Week 12

This assessment is an individual presentation based on the case study results from Assessment 2. This poster presentation will be conducted either online or in person during the lecture in week 12. Presentation slides are not required, but you need to develop a one-page poster to support your presentation, which must be uploaded to the Moodle site before the lecture. Citations and reference list are not required on the poster, and there is no specific template for its design. However, you need to include the major results from the Assessment 2 on the poster and present them. This individual presentation will be 10 minutes.

CRITERIA: 50% of points will be deducted if no poster is submitted. A low-quality poster will also lead to point reduction. Additionally, points will be lost for directly reading from Assessment 2, lacking interaction and eye contact with the audience, placing full sentences and paragraphs on the poster, and exceeding the presentation time. Checking the rubric carefully before staring your assessment.

General Information

Overview

Sustainable Aviation will offer you an introduction to concepts and tools necessary for understanding the challenges of sustainable development in the aviation industry. You will develop skills in comprehending and assessing the environmental, social and economic sustainability of societal decisions and their impact on the aviation industry. You will gain insights into efficiently assigning resources to release unused capacity, reduce costs, and increase systems' resilience to unexpected events for sustainable transport infrastructure development.

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

Students must meet all requisites: 1. AVAT11008 Introduction to Aviation Management, AVAT12018 Air Freight Transportation, AVAT12022 Airport Management AND 2. AVAT11013 Introduction to Aviation OR AVAT11002 Basic Aeronautical Knowledge.
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 - 2024

- 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. **Critical Review**
Weighting: 30%
2. **Essay**
Weighting: 30%
3. **Group Work**
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.

Unit Learning Outcomes

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

1. Construct a well-founded set of metrics for assessing sustainability that considers safety, economic, environment, social, and operational viewpoints
2. Evaluate projects or initiatives affecting aviation sustainability using multi-attribute analysis techniques
3. Apply sustainability terms, information, policies, and concepts in aviation operations
4. Critically analyse sustainability initiatives in the aviation industry
5. Identify suitable solutions and communication tools at the local, national and international level through review of negotiation rules and practices.

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 - Critical Review - 30%	●			●	●
2 - Essay - 30%		●	●	●	
3 - Group Work - 40%	●	●	●		●

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					

Textbooks and Resources

Textbooks
AVAT13022

Prescribed

Fundamentals of Sustainable Aviation
Edition: First (2024)
Authors: Maleviti, Eva
Abingdon, England : Routledge
ISBN: 9781032164076
This textbook is available through the CQU library.

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

Doreen La Unit Coordinator
j.la@cqu.edu.au

Schedule

Week 1 - 08 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Introduction	At the end of this week, You will: •Understand the concept and the principle of sustainable development. •Understand the three pillars of sustainability. •Understand the necessity to bring sustainability to aviation.	

Week 2 - 15 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Environmental Sustainability in Aviation	At the end of this week, You will: •Understand different types of aviation emissions. •Understand and assess the environmental impact of aviation. •Understand various environmental regulations for aviation.	

Week 3 - 22 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic

Economic Sustainability in Aviation	At the end of this week, You will: •Understand economic benefits of aviation. •Understand how aviation supports economic sustainability. •Understand the basic actions to create a circular economic model for the aviation industry.	

Week 4 - 29 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Social Sustainability in Aviation	At the end of this week, You will: •Understand aviation social sustainability. •Understand human and social capital in aviation's social sustainability. •Understand Corporate Social Responsibility in aviation and aerospace industry. •Understand what ESG means for the aviation sector.	

Week 5 - 05 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Safety in Aviation Sustainability	At the end of this week, You will: •Understand role of safety in aviation sustainability. •Understand tools and models that can support sustainable aviation operations. •Understand the methods of 'crisis management' in aviation context.	

Vacation Week - 12 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 19 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Assessment 1 (Quiz) and Mid-term Review	In this week, you will complete Assessment 1 (Quiz) during the lecture. And You will understand the requirements for Assessment 2 (Written Assessment) and Assessment 3 (Poster Presentation).	Assessment 1 (Quiz) will be completed during the lecture.

Week 7 - 26 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Sustainability in Airports	At the end of this week, You will: •Understand the role of airports in sustainable aviation. •Understand the role of different systems for creating sustainable airports. •Understand waste management in airports.	

Week 8 - 02 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic

| | At the end of this week, You will:
•Understand the role of airlines in sustainable aviation.
•Understand the long-term and short-term sustainability strategies in the airline industry
•Understand the sustainable cabin | |
| Sustainability in Airlines | | |

Week 9 - 09 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Sustainability in Aircraft & Sustainability in Air Traffic Management – Part 1	At the end of this week, You will: •Understand sustainable aviation fuel (SAF). •Understand the sustainability in the design of aircraft. •Understand Life Cycle Assessment (LCA).	

Week 10 - 16 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Sustainability in Aircraft & Sustainability in Air Traffic Management – Part 2	At the end of this week, You will: •Understand the sustainable aircraft maintenance. •Under the air traffic management (ATM) principles with sustainability. •Understand the role of Performance-Based Navigation (PBN) in relation to sustainability.	Assessment 2 (Written Assessment) should be submitted before 23:59 on Friday of Week 10.

Week 11 - 23 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Sustainable Aviation Strategies and Policies & Sustainable Aviation Future	At the end of this week, You will: •Understand the sustainability strategies in aviation. •Understand the aviation policies regarding sustainability. •Understand the advanced technologies and applications proposed for future aviation.	

Week 12 - 30 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Assessment 3 (Final Poster Presentation)	During the lecture in this week, you will completed Assessment 3 (Poster Presentation).	The poster should be submitted before the lecture in this week. And Assessment 3 (Poster Presentation) will be completed during the lecture.

Review/Exam Week - 07 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 14 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Assessment 1 in Term 2 2024 is NOT Critical Review, the correct Assessment 1 will be a Quiz

Assessment Type
Critical Review

Task Description
Important! Please ignore the default assessment type shown on this unit profile.

Assessment Due Date

Return Date to Students

Weighting
30%

Assessment Criteria
No Assessment Criteria

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Learning Outcomes Assessed

- Construct a well-founded set of metrics for assessing sustainability that considers safety, economic, environment, social, and operational viewpoints
- Critically analyse sustainability initiatives in the aviation industry
- Identify suitable solutions and communication tools at the local, national and international level through review of negotiation rules and practices.

2 Assessment 2 in Term 2 2024 is NOT an Essay, the correct Assessment 2 will be a Written Assessment

Assessment Type
Essay

Task Description
Important! Please ignore the default assessment type shown on this unit profile.

Assessment Due Date

Return Date to Students

Weighting
30%

Assessment Criteria
No Assessment Criteria

Referencing Style

- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Submission Instructions
Submit in PDF format

Learning Outcomes Assessed

- Evaluate projects or initiatives affecting aviation sustainability using multi-attribute analysis techniques
- Apply sustainability terms, information, policies, and concepts in aviation operations
- Critically analyse sustainability initiatives in the aviation industry

3 Assessment 3 in Term 2 2024 is NOT Group Work, the correct Assessment 3 will be an Individual Poster Presentation

Assessment Type
Group Work

Task Description
Important! Please ignore the default assessment type shown on this unit profile.

Assessment Due Date

Return Date to Students

Weighting
40%

Assessment Criteria
No Assessment Criteria

Referencing Style

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

Submission
Online

Submission Instructions
Poster must be submitted before the lecture in Week 12.

Learning Outcomes Assessed

- Construct a well-founded set of metrics for assessing sustainability that considers safety, economic, environment, social, and operational viewpoints
- Evaluate projects or initiatives affecting aviation sustainability using multi-attribute analysis techniques
- Apply sustainability terms, information, policies, and concepts in aviation operations
- Identify suitable solutions and communication tools at the local, national and international level through review of negotiation rules and practices.

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