AVAT13005 *Aviation Theory V*

Term 2 - 2017

Profile information current as at 04/05/2024 08:44 pm

All details in this unit profile for AVAT13005 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 provides the Command Instrument Rating theory required by Commercial Pilot students wishing to undertake the CASA Instrument Rating Examination (IREX). Topics covered include instrumentation, radio navigation aids, IFR planning, enroute considerations, IFR arrivals and departures, and IFR meteorology.

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: AVAT 11001 and AVAT 12002 and AVAT 12003 and AVAT 12004
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 - 2017

- Bundaberg
- Distance

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: 7%
2. **Online Quiz(zes)**
Weighting: 7%
3. **Online Quiz(zes)**
Weighting: 7%
4. **Online Quiz(zes)**
Weighting: 7%
5. **Online Quiz(zes)**
Weighting: 7%
6. **Online Quiz(zes)**
Weighting: 7%
7. **Online Quiz(zes)**
Weighting: 7%
8. **Online Quiz(zes)**
Weighting: 7%
9. **Online Quiz(zes)**
Weighting: 7%
10. **Online Quiz(zes)**
Weighting: 7%
11. **Written Assessment**
Weighting: 30%

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 Have Your Say

Feedback
Excellent course with great support from the Lecturer

Recommendation
Continue support students to the utmost of our ability

Unit Learning Outcomes

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

1. Hypothesise the outcome of flying in a range of meteorological conditions
2. Critically analyse meteorological information in VOLMET (Meteorological Information for Aircraft in Flight)
3. Evaluate a given radio navigation aid and undertake calculations related to aircraft tracking
4. Explain limitations associated with radar operations
5. Plan IFR (Instrument Flight Rules) flights in Australia in accordance with airways operations procedures as detailed in (AIP Aeronautical Information Publication) and ERSA (En-route Supplement Australia)
6. Recall and determine appropriate action for a missed approach

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	6

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Online Quiz(zes) - 7%		•	•	•		
2 - Online Quiz(zes) - 7%						•
3 - Online Quiz(zes) - 7%					•	•
4 - Online Quiz(zes) - 7%					•	•
5 - Online Quiz(zes) - 7%						•
6 - Online Quiz(zes) - 7%	•					
7 - Online Quiz(zes) - 7%	•					
8 - Written Assessment - 30%					•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - Online Quiz(zes) - 7%		•	•	•				•		

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
2 - Online Quiz(zes) - 7%	•	•	•	•				•		
3 - Online Quiz(zes) - 7%		•	•	•						
4 - Online Quiz(zes) - 7%	•	•	•	•				•		
5 - Online Quiz(zes) - 7%		•	•	•						
6 - Online Quiz(zes) - 7%		•	•	•						
7 - Online Quiz(zes) - 7%		•	•	•				•		
8 - Online Quiz(zes) - 7%		•	•	•				•		
9 - Online Quiz(zes) - 7%		•	•	•						
10 - Online Quiz(zes) - 7%		•	•	•				•		
11 - Written Assessment - 30%	•	•	•	•	•	•	•	•		

Textbooks and Resources

Textbooks

AVAT13005

Prescribed

Command Instrument Rating
First Edition (2009)
Authors: Robinson, David
Aviation Theory Centre
Darra , Queensland , Australia
ISBN: 1-921176-88-1
Binding: Hardcover

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

Ron Bishop Unit Coordinator
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Schedule

Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Meteorology	2	

Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Instrument Flying Technique	4	Quizzes start this week and will occur every week for the remainder of the unit. Check Moodle for when the quiz is open.

Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Abnormal Operations - IMC	5	**Online Quiz(zes)** Due: Week 3 Monday (24 July 2017) 9:00 am AEST

Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Radar	6	**Online Quiz(zes)** Due: Week 4 Monday (31 July 2017) 9:00 am AEST

Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Navigation Aids: NDB/ADF, VOR, DME	7, 8 & 9	**Online Quiz(zes)** Due: Week 5 Monday (7 Aug 2017) 9:00 am AEST

Vacation Week - 14 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 21 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
ILS	10	**Online Quiz(zes)** Due: Week 6 Monday (21 Aug 2017) 9:00 am AEST

Week 7 - 28 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
RNAV Systems	11	**Online Quiz(zes)** Due: Week 7 Monday (28 Aug 2017) 9:00 am AEST

Week 8 - 04 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Command Instrument Rating Privileges and Limitations	12, 13 & CAO 40.20.1	**Online Quiz(zes)** Due: Week 8 Monday (4 Sept 2017) 9:00 am AEST

Week 9 - 11 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic

Preparing an IFR Flight	14	**Online Quiz(zes)** Due: Week 9 Monday (11 Sept 2017) 9:00 am AEST
Week 10 - 18 Sep 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
IFR Preparation and Departures	15	**Online Quiz(zes)** Due: Week 10 Monday (18 Sept 2017) 9:00 am AEST
Week 11 - 25 Sep 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
IFR En Route, Arrivals, and Holding Patterns	16, 17 & 18	**Online Quiz(zes)** Due: Week 11 Monday (25 Sept 2017) 9:00 am AEST **Written Assessment** Due: Week 11 Monday (25 Sept 2017) 9:00 am AEST
Week 12 - 02 Oct 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Instrument Approaches and Visual Manoeuvring	19 & 20	**Online Quiz(zes)** Due: Week 12 Monday (2 Oct 2017) 9:00 am AEST
Review/Exam Week - 09 Oct 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Writing Assignment		Ensure you begin this early in the term. See Moodle for Due Date.
Exam Week - 16 Oct 2017		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Assessment Tasks

1 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 3 Monday (24 July 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Learning Outcomes Assessed

- Critically analyse meteorological information in VOLMET (Meteorological Information for Aircraft in Flight)
- Evaluate a given radio navigation aid and undertake calculations related to aircraft tracking
- Explain limitations associated with radar operations

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy
- Ethical practice

2 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 4 Monday (31 July 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Learning Outcomes Assessed

- Recall and determine appropriate action for a missed approach

Graduate Attributes

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

3 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 5 Monday (7 Aug 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy

4 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 6 Monday (21 Aug 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Learning Outcomes Assessed

- Plan IFR (Instrument Flight Rules) flights in Australia in accordance with airways operations procedures as detailed in (AIP Aeronautical Information Publication) and ERSA (En-route Supplement Australia)
- Recall and determine appropriate action for a missed approach

Graduate Attributes

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

5 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 7 Monday (28 Aug 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Learning Outcomes Assessed

- Plan IFR (Instrument Flight Rules) flights in Australia in accordance with airways operations procedures as detailed in (AIP Aeronautical Information Publication) and ERSA (En-route Supplement Australia)
- Recall and determine appropriate action for a missed approach

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy

6 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 8 Monday (4 Sept 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Learning Outcomes Assessed

- Recall and determine appropriate action for a missed approach

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy

7 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 9 Monday (11 Sept 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
s

Learning Outcomes Assessed

- Hypothesise the outcome of flying in a range of meteorological conditions

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy
- Ethical practice

8 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 10 Monday (18 Sept 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy
- Ethical practice

9 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 11 Monday (25 Sept 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Hypothesise the outcome of flying in a range of meteorological conditions

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy

10 Online Quiz(zes)

Assessment Type
Online Quiz(zes)

Task Description
No Assessment Task Description

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 12 Monday (2 Oct 2017) 9:00 am AEST

Return Date to Students

Return on completion of Quiz

Weighting
7%

Assessment Criteria
No Assessment Criteria

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy
- Ethical practice

11 Written Assessment

Assessment Type
Written Assessment

Task Description
This assignment will broaden your understanding of the requirements and challenges of instrument flight. You will need to reviews relevant literature (textbooks, websites, etc) to explain and discuss the differences and challenges of Instrument Flying compare to Visual Flying. You can use the text but other sources must be used to broaden your depth and knowledge of the subject.
Your paper should briefly cover the following areas:
The differences and challenges of Instrument Flying compared to Visual Flying.
The paper will draw on sourced literature and other sources. (Hint: Use the Library's resource search and online journal databases, (eg., Ebscohost, books, videos, etc.)
Format
The paper is to be written in essay format, with an Introduction, Body, and Conclusion and will be properly referenced using the Harvard Style. An abstract is required. Do not provide a table of contents. Pages should be numbered in Arabic numerals at the top right corner, except for the title page (no page number) and the abstract should have Roman numerals starting at ii. 1200 words maximum.

Assessment Due Date
Week 11 Monday (25 Sept 2017) 9:00 am AEST

Return Date to Students

Within 2 weeks after due date

Weighting
30%

Assessment Criteria
Demonstrates knowledge and understanding of the differences between IFR and VFR flying. Extensive knowledge and understanding of the differences and challenges demonstrated by a well-informed and critical discussion.
HD: Excellent and appropriate use of examples and a good grasp of the challenges and differences of IFR compared to VFR flight. Excellent referencing.
D: Considerable knowledge and understanding of IFR vs. VFR flying. Very good use of examples. Good referencing.
C: Appropriate use of examples, knowledge, and understanding. Decent referencing
P: Basic knowledge and understanding. Decent referencing.
P: Some use of examples. Little knowledge and understanding. Adequate Referencing.
F: No use of examples. No grasp of the subject on IFR/VFR differences and challenges. No or limited references. Very poor referencing.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit through moodle/turnitin

Learning Outcomes Assessed

- Plan IFR (Instrument Flight Rules) flights in Australia in accordance with airways operations procedures as detailed in (AIP Aeronautical Information Publication) and ERSA (En-route Supplement Australia)
- Recall and determine appropriate action for a missed approach

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

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