UNSW Course Outline

AVIA3012 Aviation Safety Management Systems - 2024

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General Course Information

Course Code : AVIA3012
Year : 2024
Term : Term 3
Teaching Period : T3
Is a multi-term course? : No
Faculty : Faculty of Science
Academic Unit : School of Aviation
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

Modern aviation transport systems now enable people to travel vast distances at high-speed, within a highly hazardous environment, yet paradoxically with minimal risk. A primary enabler for this is the development of Safety Management Systems (SMS). Successful completion of this

course is expected to equip the student with the theoretical knowledge of the requirements of a SMS as described by the International Civil Aviation Organization (ICAO) and the Civil Aviation Safety Authority (CASA) Australia. The theoretical knowledge acquired in this course will be applied to a variety of real-world safety scenarios and examples across a variety of high reliability industries including aviation, nuclear, and oil and gas.

Course Aims

This 6 Unit of Credit (UOC) course aims to provide students with an understanding of the principles of an aviation Safety Management System, and how the interaction between individuals and organisations affect levels of safety. Successful completion of this course is expected to equip the student with the theoretical knowledge of the requirements of a Safety Management System (SMS) as described by the International Civil Aviation Organization (ICAO) and the Civil Aviation Safety Authority (CASA) Australia in their respective publications.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Describe the concept of safety and the origins of Safety Systems.
CLO2 : Describe the principles of a Safety Management System and the accepted pillars which form a Safety Management System.
CLO3 : Compare and contrast the international and domestic requirements for a Safety Management System in an aviation context.
CLO4 : Evaluate and describe how to implement a Safety Management System.
CLO5 : Apply the knowledge and skills necessary to undertake the functions and responsibilities of a Safety Manager
CLO6 : Be able to apply and demonstrate advanced learning, writing and communication skills consistent with graduate attributes.

Course Learning Outcomes	Assessment Item
CLO1 : Describe the concept of safety and the origins of Safety Systems.	• Multiple choice quiz • Short Answer Questions • Group Presentation • Final Examination
CLO2 : Describe the principles of a Safety Management System and the accepted pillars which form a Safety Management System.	• Group Presentation • Final Examination
CLO3 : Compare and contrast the international and domestic requirements for a Safety Management System in an aviation context.	• Short Answer Questions • Group Presentation • Final Examination
CLO4 : Evaluate and describe how to implement a Safety Management System.	• Short Answer Questions • Group Presentation • Final Examination
CLO5 : Apply the knowledge and skills necessary to undertake the functions and responsibilities of a Safety Manager	• Short Answer Questions • Group Presentation • Final Examination
CLO6 : Be able to apply and demonstrate advanced learning, writing and communication skills consistent with graduate attributes.	• Short Answer Questions • Group Presentation • Final Examination

Learning and Teaching Technologies

Moodle - Learning Management System

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Multiple choice quiz Assessment Format: Individual	0%	Start Date: Week 4 Due Date: Week 4
Short Answer Questions Assessment Format: Individual	30%	Start Date: Week 1 Due Date: Week 5: 07 October - 13 October
Group Presentation Assessment Format: Group	20%	Start Date: Week4 Due Date: week10
Final Examination Assessment Format: Individual	50%	Start Date: UNSW Exam Period Due Date: UNSW Exam Period

Assessment Details

Multiple choice quiz

Assessment Overview

The multiple choice quiz is formative and will comprise of 12 multiple choice questions, focusing on course content presented in the first 3 weeks. The quiz will be made available online via the AVIA3012 Moodle course page at a set time allocated during Week 4. You will be provided 15 minutes to complete the quiz and will only be allowed one attempt. The quiz will be due in week 4. You will receive answers immediately after submission of your completed attempt of the online quiz.

Course Learning Outcomes

- CLO1 : Describe the concept of safety and the origins of Safety Systems.

Assessment Length

15 minutes

Generative AI Permission Level

Simple Editing Assistance

In completing this assessment, you are permitted to use standard editing and referencing functions in the software you use to complete your assessment. These functions are described below. You must not use any functions that generate or paraphrase passages of text or other media, whether based on your own work or not.
If your Convenor has concerns that your submission contains passages of AI-generated text or media, you may be asked to account for your work. If you are unable to satisfactorily

demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

Short Answer Questions

Assessment Overview

You will be asked to answer a set of short answer questions with a maximum of 1,200 words. In answering each question, you will need to clearly define key terms, discuss the theory that supports/underpins the term/s, discuss the safety implication, and provide an applied example. Details of the assessment will be provided to you in Week 1. This assessment is due in Week 5. Feedback will be provided through comments and a marked rubric in week 7.

Course Learning Outcomes

- CLO1 : Describe the concept of safety and the origins of Safety Systems.
- CLO3 : Compare and contrast the international and domestic requirements for a Safety Management System in an aviation context.
- CLO4 : Evaluate and describe how to implement a Safety Management System.
- CLO5 : Apply the knowledge and skills necessary to undertake the functions and responsibilities of a Safety Manager
- CLO6 : Be able to apply and demonstrate advanced learning, writing and communication skills consistent with graduate attributes.

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Group Presentation

Assessment Overview

In groups of four to five (maximum) students, you will present and record a five-minute video

identifying and describing how one component of a safety management system pillar contributed to a recent aircraft accident. This presentation must outline and explain the safety management pillar, contain information about how the pillar contributed to the current accident, and how the deficiency with the pillar component can be rectified. You will also be assessed on your ability to support your presentation with reputable, scholarly research and supporting evidence. This assessment is due in week 10 during class. Feedback and marks will be provided within 10 working days of the submission deadline. Assessment details will be released at the beginning of Week 5, including details for group allocation.

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Final Examination

Assessment Overview

You will be asked to complete a final examination comprised of 8 short answer questions and one essay question, covering all content in the Aviation Safety Management Systems course. This final examination will take place in person during the final examination period and you will

be provided with 2 hours to complete the examination. Feedback is available through inquiry with the course convenor.

Course Learning Outcomes

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- CLO2 : Describe the principles of a Safety Management System and the accepted pillars which form a Safety Management System.
- CLO3 : Compare and contrast the international and domestic requirements for a Safety Management System in an aviation context.
- CLO4 : Evaluate and describe how to implement a Safety Management System.
- CLO5 : Apply the knowledge and skills necessary to undertake the functions and responsibilities of a Safety Manager
- CLO6 : Be able to apply and demonstrate advanced learning, writing and communication skills consistent with graduate attributes.

Generative AI Permission Level

No Assistance

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.
For more information on Generative AI and permitted use please see here.

General Assessment Information

UNSW Aviation's decision for Short Extension Policy

The School of Aviation has carefully reviewed its range of assignments and projects to determine their suitability for automatic short extensions as set out by the UNSW Short Extension Policy. After careful consideration of our course offerings and our current structure, we have determined that our current deadline structures already accommodate the possibility of unexpected circumstances that may lead students to require additional days for submission. Consequently, the School of Aviation has decided to not adopt the Short Extension provision for all its courses and has reassured that flexibility is integrated into our assessment deadlines. The decision is subject to revision in response to the introduction of new course offerings. Students may still apply for Special Consideration via the usual procedures.

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 9 September - 15 September	Blended	Evolution of safety management including SMS in aviation
Week 2 : 16 September - 22 September	Blended	Safety Management at ICAO Safety Management Systems in Service Providers CASA's approach to Safety Management Systems
Week 3 : 23 September - 29 September	Blended	Safety Policy and Objective
Week 4 : 30 September - 6 October	Blended	Safety Risk Management
Week 5 : 7 October - 13 October	Blended	Safety Assurance
Week 6 : 14 October - 20 October	Other	Flexibility week.
Week 7 : 21 October - 27 October	Blended	Safety Promotion Safety Culture
Week 8 : 28 October - 3 November	Blended	Implementing SMS Effectiveness of SMS What next for SMS?
Week 9 : 4 November - 10 November	Blended	Recap, revision and exam prep
Week 10 : 11 November - 17 November	Blended	Group Presentations

Attendance Requirements

Please note that lecture recordings are not available for this course. Students are strongly encouraged to attend all classes and contact the Course Authority to make alternative arrangements for classes missed.

General Schedule Information

UNSW Aviation's decision to not release Lecture Recordings:

The School of Aviation prides itself on offering education that supports students in their personalised learning journey. This involves providing opportunities for students to engage with academics and key aviation experts to identify and address learning gaps, develop core skills and knowledge, and foster an environment of collaboration and meaningful discussion with the UNSW Aviation community. To support this vision, UNSW Aviation has decided to require students to attend all synchronous lectures (in-person or online) and not release class recordings to the student cohort. If students cannot attend a class and require learning support due to unforeseen circumstances, they should contact their Course Coordinator or Program Coordinator to discuss options for support and making up for missed class time.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	William Kerr				Via email.	No	Yes

Other Useful Information

Academic Information

Upon your enrolment at UNSW, you share responsibility with us for maintaining a safe, harmonious and tolerant University environment.

You are required to:

- Comply with the University's conditions of enrolment.
- Act responsibly, ethically, safely and with integrity.
- Observe standards of equity and respect in dealing with every member of the UNSW community.
- Engage in lawful behaviour.
- Use and care for University resources in a responsible and appropriate manner.
- Maintain the University's reputation and good standing.

For more information, visit the UNSW Student Code of Conduct Website.

Academic Honesty and Plagarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.
Further information about referencing styles can be located at https://student.unsw.edu.au/referencing

Academic integrity is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage. At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.
Further information about academic integrity, plagiarism and the use of AI in assessments can be located at:

- The Current Students site,
- The ELISE training site, and
- The Use of AI for assessments site.

The Student Conduct and Integrity Unit provides further resources to assist you to understand

your conduct obligations as a student: https://student.unsw.edu.au/conduct

Submission of Assessment Tasks

Penalty for Late Submissions

UNSW has a standard late submission penalty of:

- 5% per day,
- for all assessments where a penalty applies,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Any variations to the above will be explicitly stated in the Course Outline for a given course or assessment task.

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

Special Consideration

If circumstances prevent you from attending/completing an assessment task, you must officially apply for special consideration, usually within 3 days of the sitting date/due date. You can apply by logging onto myUNSW and following the link in the My Student Profile Tab. Medical documentation or other documentation explaining your absence must be submitted with your application. Once your application has been assessed, you will be contacted via your student email address to be advised of the official outcome and any actions that need to be taken from there. For more information about special consideration, please visit: https://student.unsw.edu.au/special-consideration

Important note: UNSW has a "fit to sit/submit" rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

Faculty-specific Information

Additional support for students

- The Current Students Gateway
- Student Support
- Academic Skills and Support
- Student Wellbeing, Health and Safety
- Equitable Learning Services
- UNSW IT Service Centre
- Science EDI Student Initiatives, Offerings and Guidelines

School Contact Information

Email:

aviation@unsw.edu.au

Telephone:

Undergraduate Courses - +61 2 9385 5756 (Katie Wang)

Postgraduate Courses - +61 2 9385 5787 (Michelle Lee)