

**The University of New South Wales
School of Aviation**

AVIA9101 – Safety Risk management: Human performance

Course Outline 2016

Course Staff

The Lecturer in charge is Dr Carlo Caponecchia. Carlo can be contacted through the Moodle interface regarding specific course issues, or on email carlo@unsw.edu.au, phone +61 2 9385 7184. Consultations with students are by appointment, so please make contact in advance should you wish to come to campus, or talk on the phone with Carlo.

Course Information

Course Description

The course provides an introduction to safety risk management with a focus on issues in human performance. Basic processes in risk management and safety are introduced, including the risk management framework, and concepts of injury and hazard control. Models for managing workplace safety are introduced as these underlie the management systems for other types of risk, and are a useful frame for a consideration of human factors in safety. Students will evaluate conceptual issues surrounding a range of hazards where human interaction with systems is paramount, and consider their measurement, monitoring, and risk management strategies. Commonly employed hazard control mechanisms, which are relevant to human performance will also be evaluated.

Aims

The course aims to provide an introduction to issues associated with human aspects of safety risk management. Human elements are often less well integrated into existing risk management systems, particularly regarding psychological hazards. Human elements covered in this course constitute an essential base for effective safety risk management. This course aims to develop an appreciation of the importance of such issues, develop student's conceptual understanding of such issues, give them skills to evaluate information and find further information, and help them apply safety risk management paradigms to human performance problems.

Learning Outcomes

On completion of this course it is anticipated that students will be able to:

- Describe some of the basic concepts related to hazards and risks
- Describe and evaluate fundamental issues in safety risk management (such as safety culture, safety management systems and risk management frameworks)
- Identify and assess issues relevant to hazards related to human performance and contrast them with other hazards
- Summarise and reflect on the importance of human performance issues and psychological hazards in safety risk management

- Apply basic risk management principles to hazard control
- Locate, evaluate, and communicate about relevant information with a focus on use of academic sources.

Location

This course is delivered in distance learning mode through the Moodle interface. Moodle is accessible from

<http://teaching.unsw.edu.au/elearning>

Learning and Teaching Philosophy

The School of Aviation is committed to excellence in learning and teaching. Accordingly, courses are taught in ways that are intended not only to provide information and skills, but also to engage and challenge students, and to use the experience that our students already have, to enrich the learning experience. The opportunity to practice and develop analytical and critical thinking skills is important in our courses, and this and other course learning outcomes are supported through the multiple teaching modes and assessment practices employed within the School.

Several different methods are used in the course to assist in achieving student learning outcomes. These include the use of case studies and examples from various industries, and the discussion of class members' experiences and reflections on course materials and readings. Exercises are included in the units to allow students to develop, and check their understanding, and to discuss issues with others in the course. Research examples are used where appropriate to demonstrate content and build an understanding of scientific literature. This should help students to consult and use scientific literature for other purposes (eg., future courses, work situations). Readings and other material are provided to assist students to evaluate different perspectives, and to provide background theoretical material.

Integration into Overall Program

The course relates to several other courses offered as part of the MScTech in Aviation Management. This course focuses on human performance issues as they affect the individual and organisations. Courses in the program can be taken in any order, though this course is linked to AVIA9201 Safety Risk Management: Physical hazards.

Internet

Online content and study materials can be accessed via UNSW Moodle:

<http://teaching.unsw.edu.au/elearning>

A range of support information is available through the TELT gateway (see url above), regarding logins and passwords etc.

Assessment

Specific requirements for each assignment will be provided upon commencement of the course.

A range different forms of assessments are included. It is intended that the first assessment (literature evaluation) will help build skills that can be used in the second assignment.

It is expected that students will attempt *all components* of the assessment in order to pass the course.

Academic Honesty and Plagiarism

Plagiarism is the presentation of the thoughts or work of another as one's own¹. Examples include:

- direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and,
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.²

Submitting an assessment item that has already been submitted for academic credit elsewhere may also be considered plagiarism.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism.

Students are reminded of their Rights and Responsibilities in respect of plagiarism, as set out in the University Undergraduate and Postgraduate Handbooks, and are encouraged to seek advice from academic staff whenever necessary to ensure they avoid plagiarism in all its forms.

The Learning Centre website is the central University online resource for staff and student information on plagiarism and academic honesty. It can be located at:

www.lc.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

1. correct referencing practices;
2. paraphrasing, summarising, essay writing, and time management;
3. appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow

¹ Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle.

² Adapted with kind permission from the University of Melbourne.

sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

Course Schedule

This course is recommended to take 10 hours per week for 12 weeks by distance learning. Students are responsible for managing their own work schedules. Note that the course begins in Week 2 (9-15 March) of the UNSW semester, and thus finishes in Week 13 (1-7 June).

The units in the course are as follows (subject to changes in order):

UNIT	Topic
1	Introduction and risk management
2	Introduction to Occupational Health and safety (OHS) and OHS Management Systems (OHSMSs)
3	Safety Culture
4	OHS Law
5	Behaviour Based Safety
6	Training and Consultation
7	Risk perception and communication
8	Psychological Hazards
9	Stress
10	Bullying and violence
11	Fatigue
12	Ergonomics and human error

Resources for students

Required Texts

There are no required texts for this course.

Recommended Texts

A range of readings will be supplied with the course units. You will need to access these readings (electronically) through the UNSW library. Assistance on how to do this will be provided in the first few weeks of the course.

A range of resources are listed in the first unit of the course, and linked on Moodle (eg., UNSW library, library tutorials, relevant library databases etc).

Students will be required to access the UNSW library (online) in order to fulfil requirements of the assessments.

Continual Course Improvement

Periodically, student evaluative feedback on the course is gathered, using among other means, UNSW's Course and Teaching Evaluation and Improvement (CATEI) Process. Student feedback is taken seriously, and continual improvements are made to the course based in part on such feedback. Significant changes to the course will be communicated to subsequent cohorts of students taking the course.

Graduate Attributes

The following graduate attributes are developed in this course through the requirements of assessments and the nature of exercises provided:

- The skills involved in scholarly enquiry
- An in-depth engagement with the relevant disciplinary knowledge in its interdisciplinary context
- The capacity for analytical and critical thinking and for creative problem-solving
- The ability to engage in independent and reflective learning
- Information literacy the skills to appropriately locate, evaluate and use relevant information

For more information about UNSW Graduate attributes, see <https://my.unsw.edu.au/student/atoz/GraduateAttributes.html>

Teaching Strategies

Notes are provided in a 12-unit distance learning manual with additional resources supplied via Moodle, including further readings at UNSW Library and a range of weblinks.

As indicated above, several different methods are used in the course to assist in achieving student learning outcomes. These include the use of case studies and examples from various industries, and the discussion of class members' experiences. Students are encouraged to post their responses to discussion questions raised in the modules on Moodle discussion forums, in order to learn from other students' perspectives and experiences. Readings and other material are provided to assist students to evaluate different perspectives, and to provide background theoretical material. It is expected that the reading material will be used, as it can form part of assessments.

Administrative Matters

Students should be familiar with the information at <https://my.unsw.edu.au> (see the student information tab) regarding expectations of students, assignment submission, examination procedures, equity and diversity, occupational health and safety, and other policies that affect you.

Student responsibilities and conduct

<https://my.unsw.edu.au/student/resources/Policies.html#StudentResponsibilities&Conduct>

Information Technology

<https://my.unsw.edu.au/student/resources/Policies.html#InformationTechnology>

Assignments: Special consideration

<https://my.unsw.edu.au/student/atoz/SpecialConsideration.html>

Note that all requests for extensions should meet criteria for special consideration, and be submitted through the special consideration procedures.

Extensions will not normally be granted for excessive workloads or to accommodate annual leave. Extensions will not be granted within 24 hours of the due date of an assignment.

A Postgraduate Aviation Student Guide can be obtained from the School of Aviation which is also available on Moodle. Please contact Jamie Lim at jamie.lim@unsw.edu.au for any administrative enquiries.