



The University of Southern Queensland

Course specification

The current and official versions of the course specifications are available on the web at <http://www.usq.edu.au/coursespecification/current>.
Please consult the web for updates that may occur during the year.

Description: Safety Science in Practice

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
MGT	8017	86171	1, 2009	EXT	1.00	Toowoomba

Academic group:	FOBUS
Academic org:	FOB004
Student contribution band:	2
ASCED code:	061301

STAFFING

Examiner: Ian Eddington
Moderator: Don Smith

OTHER REQUISITES

Students are required to have access to a personal computer, e-mail capabilities and Internet access to USQConnect. Current details of computer requirements can be found at <http://www.usq.edu.au/ict/students/standards/default.htm>.

RATIONALE

Effective health and safety management requires understanding and application of scientific principles, methods and knowledge. A wide range of workplaces experience a number of risks of damage to people, plant and property due to the uncontrolled interactions of animate and inanimate components of the workplace environment. Understanding the mechanisms of these interactions and designing predictive, preventative, interventional controls requires scientific analysis and interpretation. All fields of science can assist in the identification, assessment, and choice of control options for all workplace risks. This subject aims to introduce students to the scientific bases of health and safety management. It does not pretend to produce specialist expertise on one or more scientific disciplines rather it is designed to promote an appreciation of the breadth and scope of applications of sciences to risk management in the workplace. A unifying theme will be the desirability, indeed necessity, for practical integration of safety, quality and productivity goals and strategies.

SYNOPSIS

This subject covers the practical applications of physical, biological, behavioural and engineering sciences to safety and health control practices in the workplace. The approach is to analyse hazards and tasks and to identify and understand the nature of risks so that sequences of events can be interrupted, and components within these sequences kept separate, isolated and constrained.

OBJECTIVES

The course objectives define the student learning outcomes for a course. The assessment item/s that may be used to assess student achievement of an objective is/are shown in parentheses after each objective. On successful completion of this course, students should be able to:

1. gain an understanding that job analysis, task analysis and hazard analysis required broad scientific knowledge (Assignment 1, Assignment 2, Assignment 3)
2. become knowledgeable about basic scientific standards, methods and procedures (Assignment 1, Assignment 2, Assignment 3)
3. develop a sound working knowledge of the scientific bases of specific aspects of safety science such as radiation safety, electrical safety, mechanical safety, construction safety and hazardous substances management (Assignment 1, Assignment 2, Assignment 3)
4. use scientific principles to establish preventive safety programmes with in-built performance objectives and bench-marks (Assignment 1, Assignment 2, Assignment 3).

TOPICS

Description	Weighting (%)
1. Introduction, perspectives, accidents	6.00
2. Risk communication	8.00
3. Hazardous substances management	8.00
4. Radiation safety	8.00
5. Electrical safety	8.00
6. Gas and pressure equipment	8.00
7. Welding	8.00
8. Confined spaces	8.00
9. Safeguarding (including machine guards)	8.00
10. Lifting gear	8.00
11. Construction safety	8.00
12. Task and hazard analysis	8.00
13. Management, rehabilitation and future directions	6.00

TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Summers, J & Smith, B 2006, *Communication skills handbook: how to succeed in written and oral communication*, 2nd edn, John Wiley & Sons, Milton, Queensland.

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	80.00
Private Study	85.00

ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
ASSIGNMENT 1	20.00	20.00	03 Apr 2009
ASSIGNMENT 2	40.00	40.00	08 May 2009
ASSIGNMENT 3	40.00	40.00	12 Jun 2009

IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:
If you are an international student in Australia, you are advised to attend all classes at your campus. For all other students, there are no attendance requirements for this course. However, it is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.
- 2 Requirements for students to complete each assessment item satisfactorily:
To satisfactorily complete an individual assessment item a student must achieve at least 50% of the marks. (Depending upon the requirements in Statement 4 below, students may not have to satisfactorily complete each assessment item to receive a passing grade in this course.)
- 3 Penalties for late submission of required work:
If students submit assignments after the due date without prior approval of the examiner, then a penalty of 5% of the total marks gained by the student for the assignment may apply for each working day late up to ten working days at which time a mark of zero may be recorded.
- 4 Requirements for student to be awarded a passing grade in the course:
To be assured of receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.
- 5 Method used to combine assessment results to attain final grade:
The final grades for students will be assigned on the basis of the aggregate of the weighted marks obtained for each of the summative assessment items in the course.
- 6 Examination information:

- There is no examination in this course.
- 7 Examination period when Deferred/Supplementary examinations will be held:
Not applicable.
 - 8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6 Assessment, and 5.10 Student Academic Misconduct for further information and to avoid actions which might contravene university regulations. These regulations can be found at <http://www.usq.edu.au/corporateservices/calendar/part5.htm>. Students should also read the Faculty of Business Policies and Procedures which can be found at <http://www.usq.edu.au/business/aboutfob.htm>.

ASSESSMENT NOTES

- 1 Assignments: (i) The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the examiner. (ii) Students must retain a copy of each item submitted for assessment. This must be produced within 24 hours if required by the examiner. (iii) In accordance with university policy, the examiner may grant an extension of the due date of an assignment in extenuating circumstances. (iv) The examiner will not accept submission of assignments by facsimile. (v) Students who do not have regular access to postal services or who are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner to negotiate such special arrangements. (vi) In the event that a due date for an assignment falls on a local public holiday in their area, such as a show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the examiner's convenience.
- 2 Referencing in assignments: Harvard (AGPS) is the referencing system required in this course. Students should use Harvard (AGPS) style in their assignments to format details of the information sources they have cited in their work. The USQ library provides advice on how to format information sources using this system. Details can be found at http://www.usq.edu.au/library/help/ehelp/ref_guides/harvard.htm and http://www.usq.edu.au/library/help/ehelp/ref_guides/harvardonline.htm.
- 3 Deferred work: Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. A temporary grade of IDM (Incomplete Deferred Make-up) may be awarded.
- 4 Make-up work: Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non-directed personal study.

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- 1 Computer, e-mail and Internet access: Students are required to have access to a personal computer, e-mail capabilities and Internet access to USQConnect. Current details of computer requirements can be found at <http://www.usq.edu.au/ict/students/standards/default.htm>.