CIVL4401

Health and Safety in Construction

Session 2, Online-scheduled-weekday 2024

School of Engineering

Contents

General Information

Unit convenor and teaching staff
Lecturer
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Tutor
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Credit points
10

Prerequisites
210cp at 1000 level or above and (CIVL1001 or MECH1001)

Corequisites

Co-badged status

Unit description
The objective of this unit is to examine major health and safety issues and apply various methods of risk assessment and management to ensure safer construction projects. This includes study of different hazards at construction sites, use of hazard identification techniques, methods of qualitative and quantitative risk assessment, methods of risk control and management, impact analysis, principles for safety in different stages of design and construction (planning, commissioning, operation, decommissioning), human factors in construction safety, and effective communication of health, safety and risk management strategies. The unit includes different guest lectures by industry (practitioners) to discuss the current health and safety practices and challenges in the design and operation of different construction sites.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

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

ULO1: Identify and assess the major work health, safety and welfare legislation in the construction projects

ULO2: Demonstrate an in-depth understanding and use of hazard and risk identification methods in construction projects

ULO3: Review and improve risk management practices of civil engineering operations

ULO4: Develop and communicate safety and risk management strategies for safer construction projects

General Assessment Information

In order to pass this unit a student must obtain a mark of 50 or more for the unit (i.e. obtain a passing grade P/ CR/ D/ HD).

For further details about grading, please refer below in the policies and procedures section.

In-class activities, or scheduled tests and exam must be undertaken at the time indicated in the unit guide. Should these activities be missed due to illness or misadventure, students may apply for Special Consideration.

All other assessments must be submitted by 5:00 pm on their due date.

Assessments not submitted by the due date will receive a mark of zero.

If you receive special consideration for the final exam, a supplementary exam will be scheduled by the faculty during a supplementary exam period, typically about 3 to 4 weeks after the normal exam period. By making a special consideration application for the final exam you are declaring yourself available for a resit during the supplementary examination period and will not be eligible for a second special consideration approval based on pre-existing commitments. Please ensure you are familiar with the policy prior to submitting an application. Approved applicants will receive an individual notification one week prior to the exam with the exact date and time of their supplementary examination.

Special Consideration

The Special Consideration Policy aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the written assessments in this unit on time, please inform the convenor and submit a Special Consideration request through ask.mq.edu.au.

Assessment Tasks

Name	Weighting	Hurdle	Due
Team Project final report and presentation	40%	No	Week 13
Final examination	30%	No	TBA
Team Project initial proposal	10%	No	Week 6
Mid session test	20%	No	Week 8

Team Project final report and presentation

Assessment Type [1]: Project
Indicative Time on Task [2]: 35 hours
Due: **Week 13**
Weighting: **40%**

This is part of a group project. Groups of 3-4 students work on the project defined by the convener, and provide a final report and presentation. Peer assessment by the students in the group and interview by the lecturer with all group members are considered to assess the individual student's contribution. Regular formative feedback is provided on group and individual progress against project milestones. This part of the project assessment has a weight of 40% and includes 15% final presentation and 25% final report.

On successful completion you will be able to:

- Identify and assess the major work health, safety and welfare legislation in the construction projects
- Demonstrate an in-depth understanding and use of hazard and risk identification methods in construction projects
- Review and improve risk management practices of civil engineering operations
- Develop and communicate safety and risk management strategies for safer construction projects

Final examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 25 hours
Due: **TBA**
Weighting: **30%**

Final examination to be held in exam period

On successful completion you will be able to:

- Identify and assess the major work health, safety and welfare legislation in the construction projects
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Team Project initial proposal

Assessment Type [1]: Report
Indicative Time on Task [2]: 10 hours
Due: **Week 6**
Weighting: **10%**

This is part of a group project. Groups of 3-4 students work on the project defined by the convener, and provide a final report and presentation. Peer assessment by the students in the group and interview by the lecturer with all group members are considered to assess the individual student's contribution. Regular formative feedback is provided on group and individual progress against project milestones. This part of the project assessment has a weight of 10%.

On successful completion you will be able to:

- Identify and assess the major work health, safety and welfare legislation in the construction projects
- Demonstrate an in-depth understanding and use of hazard and risk identification methods in construction projects
- Review and improve risk management practices of civil engineering operations
- Develop and communicate safety and risk management strategies for safer construction projects

Mid session test

Assessment Type [1]: Quiz/Test

Indicative Time on Task [2]: 15 hours
Due: **Week 8**
Weighting: **20%**

Students to solve a set of problems in a defined time.

On successful completion you will be able to:

- Identify and assess the major work health, safety and welfare legislation in the construction projects
- Demonstrate an in-depth understanding and use of hazard and risk identification methods in construction projects
- Review and improve risk management practices of civil engineering operations

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Teaching materials, including lecture notes and slides, are provided by the instructor. Please refer to ILearn for further information.

There is no tutorial session in Week 1.

Unit Schedule

Lectures and SGTAs for this unit are online. Please refer to ILearn.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy

- Assessment Policy
- Fitness to Practice Procedure
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

Students seeking more policy resources can visit Student Policies (https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues
- Student Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Engineers Australia Competency Mapping

EA Competency Standard		Unit Learning Outcomes
Knowledge and Skill Base	1.1 Comprehensive, theory-based understanding of the underpinning fundamentals applicable to the engineering discipline.	
	1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing.	#1, 2
	1.3 In-depth understanding of specialist bodies of knowledge	#1
	1.4 Discernment of knowledge development and research directions	#3
	1.5 Knowledge of engineering design practice	

	1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice.	
Engineering Application Ability	2.1 Application of established engineering methods to complex problem solving	#2
	2.2 Fluent application of engineering techniques, tools and resources.	
	2.3 Application of systematic engineering synthesis and design processes.	#3
	2.4 Application of systematic approaches to the conduct and management of engineering projects.	#3
Professional and Personal Attributes	3.1 Ethical conduct and professional accountability.	#4
	3.2 Effective oral and written communication in professional and lay domains.	#4
	3.3 Creative, innovative and pro-active demeanour.	
	3.4 Professional use and management of information.	
	3.5 Orderly management of self, and professional conduct.	
	3.6 Effective team membership and team leadership	#4

Unit information based on version 2024.04 of the Handbook