CIVL3401

Construction Management

Session 2, In person-scheduled-weekday, North Ryde 2024

School of Engineering

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General Information

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Credit points
10

Prerequisites
130cp at 1000 level or above and (CIVL1001 or MECH1001)

Corequisites

Co-badged status

Unit description
The objective of this unit is to provide the required knowledge to address effective planning, organising, application, coordination, monitoring, control and reporting at different stages of construction projects. The unit helps the student to become familiar with the concepts of modern construction management which include sustainable, environmentally friendly and economic construction processes. Specific topics include project management (planning techniques, workforce motivation, project cost control, management of equipment), business management (project procurement, estimating and tendering, competitive bidding, company budgetary control, economic assessment), and administration and company management (company organisation, market planning and business development, construction logistics and risks, information resources).

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: Demonstrate in-depth understanding of modern construction management

ULO2: Identify and compare different project delivery methods and assess the associated risks

ULO3: Estimate different construction timelines and required budgets

ULO4: Explain estimating and tendering principles and practice in different construction projects

ULO5: Differentiate and explain different contractual arrangements in the construction industry

General Assessment Information

Grading and passing requirements for unit

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).

Late Assessment Submission Penalty

From 1 July 2022, Students enrolled in Session-based units with written assessments will have the following university standard late penalty applied. Please see https://students.mq.edu.au/study/assessment-exams/assessments for more information.

Unless a Special Consideration request has been submitted and approved, a **5% penalty** (of the

total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11:55 pm. A 1-hour grace period is provided to students who experience a technical concern. **You should contact your convenor for any anticipated issues that might prevent you from a timely submission of work.**

Re-submission for any submitted and/or graded work will not be allowed.

Late submission will require justification via an approved Special Consideration process, if not late penalty procedure will be followed.

Your assessments are a key element in your learning process. Find out about the types of assessments you may need to complete at Macquarie.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Preliminary Design Report	20%	No	Week 7		No	
Final Exam	30%	No	TBD		No	
Bid preparation and presentation	40%	No	Week 13		No	
Weekly Quiz	10%	No	Weekly		No	

Preliminary Design Report

Assessment Type [1]: Report
Indicative Time on Task [2]: 16.5 hours
Due: **Week 7**
Weighting: **20%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

This is in preparation for the group project on the construction management of different civil engineering infrastructures. Teams of 3-4 students prepare a Preliminary Design Report based on a specification from a "client". Peer assessment by the students in the group and observation by the lecturer of all group members is used to assess the individual student's contribution. Regular formative feedback is provided for team and individual progress against project milestones. This assessment has a weight of 10%.

On successful completion you will be able to:

- Demonstrate in-depth understanding of modern construction management
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Final Exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 25 hours
Due: **TBD**
Weighting: **30%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

Final exam during the exam period

On successful completion you will be able to:

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Bid preparation and presentation

Assessment Type [1]: Project
Indicative Time on Task [2]: 30 hours
Due: **Week 13**
Weighting: **40%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

This is part of a group project on the construction management of different civil engineering infrastructures. 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 th learning outcomes. This part of the project assessment has a weight of 40% which includes10% final presentation and 30% final report.

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Weekly Quiz

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 6.5 hours
Due: **Weekly**
Weighting: **10%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

These weekly quizzes are paired with the lecture for the week and provide an opportunity for students and staff to assess individual student progress toward attaining the final learning outcomes.

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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
- Academic Success 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.

[3] An automatic short extension is available for some assessments. Apply through the Service Connect Portal.

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 connect.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 the Service Connect Portal, 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.

Unit information based on version 2024.03 of the Handbook