CIVL4201
Geotechnical and Transportation Project
Session 1, In person-scheduled-weekday, North Ryde 2024
School of Engineering

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General Information

Unit convenor and teaching staff
Convenor
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Contact via email
Room 111, Level 1, 50 Waterloo Road, Macquarie Park
By arrangement

Convenor
Steven Hansen
steven.hansen@mq.edu.au
Contact via email
By arrangement

Credit points
10

Prerequisites
CIVL2205 and CIVL3201

Corequisites

Co-badged status

Unit description
This unit provides a practical introduction to investigation and design techniques in geotechnical and transport engineering. The projects are defined in consultation with engineers from practice, and students are expected to carry out the project emulating equivalent industry project-based professional practice. During the project, students will engage in teamwork, and will be required to investigate several options in a multi-objective context. The project work will draw upon knowledge and skills primarily gained in CIVL2205 Geotechnical Engineering, and CIVL3201 Transport Engineering, as well as other foundational knowledge.

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: Apply fundamental knowledge about geotechnical design and transport systems to a specific project.

ULO2: Apply relevant Australian Standards procedures to a geotechnical or transportation engineering design project.

ULO3: Exhibit an in-depth understanding of how to analyse and design geotechnical structures and transport systems.

ULO4: Communicate project outcomes and associated solutions professionally, both orally and in writing.

ULO5: Employ strategies to collaborate effectively within a team.

General Assessment Information

Students require to submit a group report in week 7 about the work they have done halfway through the session. They then complete the report based on the received feedback and submit the final report in week 13. Rubrics for project presentation and technical report will be available to students through iLearn.

Grading and passing requirement for unit

There are periodic quizzes, technical reports and a project presentation that need to be completed for assessment. 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.

Late assessment submission

Late assessments are not accepted in this unit unless a Special Consideration has been submitted and approved.

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 assessments in this unit on time, please inform the convenor and submit a Special Consideration request through ask.mq.edu.au.

Assessment Tasks

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<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
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<tr>
<td>Technical report</td>
<td>40%</td>
<td>No</td>
<td>Week 7 and 13</td>
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https://unitguides.mq.edu.au/unit_offerings/162964/unit_guide/print
### Technical report

**Assessment Type**: Report  
Indicative Time on Task: 24 hours  
Due: **Week 7 and 13**  
Weighting: 40%

On successful completion you will be able to:

- Apply relevant Australian Standards procedures to a geotechnical or transportation engineering design project.
- Communicate project outcomes and associated solutions professionally, both orally and in writing.
- Employ strategies to collaborate effectively within a team.

### Project presentation

**Assessment Type**: Presentation  
Indicative Time on Task: 24 hours  
Due: **Week 13**  
Weighting: 40%

On successful completion you will be able to:

- Exhibit an in-depth understanding of how to analyse and design geotechnical structures and transport systems.
- Communicate project outcomes and associated solutions professionally, both orally and in writing.
- Employ strategies to collaborate effectively within a team.
Periodic quizzes

Assessment Type: Quiz/Test
Indicative Time on Task: 11 hours
Due: Week 5 and 9
Weighting: 20%

Periodic quizzes

On successful completion you will be able to:
- Apply fundamental knowledge about geotechnical design and transport systems to a specific project.
- Exhibit an in-depth understanding of how to analyse and design geotechnical structures and transport systems.

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

Workshops are face to face and start from Week 1. Students are encouraged to attend all the workshops as all the required information for doing the project will be provided during these workshops. This is a group project and student's teamwork will be evaluated based on the activities students do during workshops. There will be two periodic quizzes (week 5 and 9) which will take place at the end of the workshop sessions. Presentation will be at week 13 and all the group members are required to attend the presentation.

Unit Schedule

Refer to iLearn for the unit schedule

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:
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**
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.

Unit information based on version 2024.01R of the Handbook