

CIVL 3007 ENGINEERING GEOMECHANICS

Credit Points 10

Legacy Code 301001

Coordinator Samantha Liyanapathirana ([https://directory.westernsydney.edu.au/search/name/Samanthika Liyanapathirana/](https://directory.westernsydney.edu.au/search/name/Samanthika%20Liyanapathirana/))

Description This unit will present the application of principles of soil mechanics to the solution of foundation and geotechnical problems including the evaluation of allowable bearing capacity of shallow and pile foundations, the stability of earth retaining structures and the stability of slopes.

School Eng, Design & Built Env

Discipline Geotechnical Engineering

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Pre-requisite(s) CIVL 3014 AND CIVL 2012 OR CIVL 2011

Equivalent Subjects CIVL 3008 - Foundation Engineering

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Apply soil mechanics principles to analyse foundation problems
2. Apply a systematic engineering approach to designing foundations
3. Interpret soil properties and soil test data for use in foundation analysis and design
4. Apply engineering software as a tool in foundation analysis and design
5. Interpret and apply Australian Standards when designing foundations
6. Prepare a geotechnical design report on a foundation design problem

Subject Content

1. Site investigation
2. Design of earth retaining structures
3. Shallow foundations
4. Slope stability
5. Deep foundations

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/Group Task
Report	20 pages	15	N	Individual
Report	20 pages	15	N	Individual
Quiz	1 hour	20	N	Individual
Numerical Problem Solving	2 hours	50	Y	Individual

Teaching Periods

Sydney City Campus - Term 1

Sydney City

Day

Subject Contact Ankit Agarwal ([https://directory.westernsydney.edu.au/search/name/Ankit Agarwal/](https://directory.westernsydney.edu.au/search/name/Ankit%20Agarwal/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL3007_22-SC1_SC_D#subjects)

Spring

Penrith (Kingswood)

Day

Subject Contact Samantha Liyanapathirana ([https://directory.westernsydney.edu.au/search/name/Samanthika Liyanapathirana/](https://directory.westernsydney.edu.au/search/name/Samanthika%20Liyanapathirana/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL3007_22-SPR_KW_D#subjects)

Parramatta - Victoria Rd

Day

Subject Contact Samantha Liyanapathirana ([https://directory.westernsydney.edu.au/search/name/Samanthika Liyanapathirana/](https://directory.westernsydney.edu.au/search/name/Samanthika%20Liyanapathirana/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL3007_22-SPR_PS_D#subjects)

Sydney City Campus - Term 3

Sydney City

Day

Subject Contact Peter Lendrum ([https://directory.westernsydney.edu.au/search/name/Peter Lendrum/](https://directory.westernsydney.edu.au/search/name/Peter%20Lendrum/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL3007_22-SC3_SC_D#subjects)