



School of Civil and Environmental Engineering

Term 3, 2020

CVEN3202

SOIL MECHANICS

COURSE DETAILS

Units of Credit	6
Contact hours	6 hours per week (4 hours lecture and 2 hours workshop)
Class	Wed[QqQQ EMC q312.05 500.11

COURSE PROGRAM

- Week 1: Introduction, Phase relationship, Classification of soils
No Laboratory
No Workshop
Release of learning module 1 (phase relationship)
- Week 2: Clay mineralogy, Compaction
Laboratory 1 will be released.
Workshop 1
- Week 3: Stress and Mohr circle, Stress in soils
Quiz 1 (week 1 materials)
Workshop 2
Release of learning module 2 (Stress and Mohr circle)
- Week 4: Stress in soils (cont.), One-dimensional seepage
Laboratory 2 will be released
Workshop 3
Release of learning module 3 (One-dimensional seepage)
- Week 5: Two-dimensional seepage, Consolidation theory
Quiz 2 (weeks 2 and 3 materials)
Workshop 4
Release of learning module 4 (Two-dimensional seepage)
- Week 6: No Lecture (Non-teaching week)
No Workshop
- Week 7: Rate of consolidation, Shear strength of soils
Laboratory 3 will be released.
Workshop 5
Release of learning module 5 (Rate of consolidation)
- Week 8: Shear strength in soils (cont.), Direct shear test
Quiz 3 (weeks 4 and 5 materials)
Workshop 6
Release of learning module 6 (Mohr-Coulomb failure criterion)
- Week 9: Triaxial test, Stress path technique
Laboratory 4 will be released.
Workshop 7
Release of learning module 7 (Triaxial test)
- Week 10: Slope stability
Quiz 4 (weeks 7 and 8 materials)
Workshops 8 and 9
Release of learning module 8 (Slope stability)

RELEVANT RESOURCES

The textbook for the course, on which most of the course PowerPoint slides are based and contains thorough explanations and dozens of worked examples, is sold in the UNSW bookshop:

+ROW] 5 ' .RYDFV : ' DQG 6KHDKDQ 7 &
Second Edition. International Edition. Pearson.

The following reference books may also be useful for additional reading, many of them can be found in the UNSW library:

- Craig, R. F. "Soil Mechanics", CRC press, 2012
- 'DV % 0 ³3ULQFLSOHV RI *HRWHFKQLFDO (2006 LQHHULQJ´ 3:6 SXEO
- Lambe and Whitman, "Soil Mechanics", Wiley, 1975
- Barnes, G., "Soil Mechanics, Principles and practice", Palgrave MacMillan; 3rd Ed, 2011
- %XGKX 0 ³6RLO 0HFKDQLFV´ DQLG HR X 06RDO
- 6PLWK , ³6PLWK¶V (OHPHQW RI 6RLO 0HFKDQLFV´ %ODFNZHO

Also, students may find the Soil Mechanics Book By Prof Verruijt in PDF from:

<http://geo.verruijt.net/software/SoilMechBook2012.pdf>

DATES TO NOTE

Refer to MyUNSW for Important Dates available at:

<https://my.unsw.edu.au/student/resources/KeyDates.html>

PLAGIARISM

Beware! An assignment that includes plagiarised material will receive a 0% Fail, and students who plagiarise may fail the course. Students who plagiarise are also liable to disciplinary action, including exclusion from enrolment.

Plagiarism is the use of DQRWKHU SHUVRQ¶V ZRUN RU LGHDV DV LI WKH\ ZHUH \R GHVLUDEOH WR XVH RWKHU SHRSOH¶V PDWHULDO \RX VKRXOG DGHTXDW and where you found them (giving the complete reference details, including page number(s)). The Learning Centre provides further information on what constitutes Plagiarism at:

<https://student.unsw.edu.au/plagiarism>

ACADEMIC ADVICE

(Formerly known as Common School Information)

For information about:

- Notes on assessments and plagiarism,
- School policy on Supplementary exams,
- Special Considerations: student.unsw.edu.au/special-consideration
- Solutions to Problems,
- Year Managers and Grievance Officer of Teaching and Learning Committee, and

