

This course provides an introduction to Soil Mechanics and includes topics on: The origin of soils and the effect of depositional and loading history on soil behaviour of soils, description and classification of soil, basic (phase) relationships, engineered fill, compaction of soils, stresses in a soil mass, stress / strain behaviour in soils, settlement of structures, total and effective stress, permeability, shear strength of dry soil, introduction to slope stability

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<div style="text-align:center;"><p>Curricular information is subject to change</p></div>

What will I learn?

Learning Outcomes:
<p>At the end of this module students should: (i) Understand the difference in behaviour of coarse and fine grained soils (ii) Demonstrate an ability to calculate stresses and strains in a soil mass and apply this to for example determining the settlement of structures (iii) Appreciate the significance of the multi-phase, particulate nature of soils (iv) understand and be able to apply a soil strength criterion to a problem such as slope stability (iv) have carried out at least 3 soils laboratory experiments including interpretation and reporting of the results</p>
Indicative Module Content:
<p>See above</p>

How will I learn?

Student Effort Hours:

Student Effort Type	Hours
Lectures	24
Tutorial	12
Autonomous Student Learning	70
Total	106

Am I eligible to take this module?

<div class="subHeadCB">Requirements, Exclusions and Recommendations</div>

<p>Not applicable to this module.</p>

<div class="subHeadCB">Module Requisites and Incompatibles</div>

Incompatibles:

BSEN30220 - Soil Engineering

How will I be assessed?

Assessment Strategy

Description	Timing	Open Book Exam	Component Scale	Must Pass Component	% of Final Grade
Assignment: Tutorial and labs	Varies over the Trimester	n/a	Standard conversion grade scale 40%	No	20
Examination: Standard exam	2 hour End of Trimester Exam	No	Standard conversion grade scale 40%	No	80

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<div class="col-sm-6">Carry forward of passed components

Yes</div>

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What happens if I fail?

Resit In	Terminal Exam
Spring	Yes - 2 Hour

Assessment feedback

<div class="subHeadCB">Feedback Strategy/Strategies</div>

<p>* Feedback individually to students, on an activity or draft prior to summative assessment

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<div class="subHeadCB">How will my Feedback be Delivered?</div>

<p>Return of each tutorial or lab in next week or at most 2 weeks after its completion</p>

Reading List

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<h1 class="printOnly"> UCD Course Search

Geotechnics 1 (CVEN20110) </h1><h3 class="printOnly">Academic Year 2019/2020</h3><p class="printOnly">The information contained in this document is, to the best of our knowledge, true and accurate at the time of publication, and is solely for informational purposes. University College Dublin accepts no liability for any loss or damage howsoever arising as a result of use or reliance on this information.</p>

<h4 class="noPrint">Geotechnics 1 (CVEN20110)</h4>

<dl>

<dt>Subject:</dt>

<dd>Civil Engineering</dd>

<dt>College:</dt>

<dd>Engineering & Architecture</dd>

<dt>School:</dt>

<dd>Civil Engineering</dd>

<dt>Level:</dt>

<dd>2 (Intermediate)</dd>

<dt>Credits:</dt>

<dd>5.0</dd>

<dt>Trimester:</dt>

<dd>Autumn</dd>

<dt>Module Coordinator:</dt>

<dd>Assoc Professor Michael Long</dd>

<dt>Mode of Delivery:</dt>

<dd>Face-to-Face</dd>

<dt>Internship Module:</dt><dd>No</dd>

<dt>How will I be graded?</dt>

<dd>Letter grades </dd>

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