

Prepare students for practice in Geotechnical Engineering. Update students in current practice and beyond in design and analysis. Topics will include soil sampling, geophysics, in-situ testing, soil parameters for design, stress/strain behaviour, elasticity, plasticity and soil stiffness.

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

## What will I learn?

<span class="subHeadCB">Learning Outcomes:</span>  
<p>Upon completion of this course, students will have knowledge and understanding of current Irish Geotechnical practice (analysis and design). They will:

1. Understand theory and physics behind fundamental aspects of soil engineering.
2. Become familiar with more advanced soil mechanics theories based on recent research.
3. Be able to interpret data from a range of field and laboratory geotechnical techniques
4. Have a good working knowledge of all ground engineering techniques used in Ireland / Western Europe along with their advantages and limitations.

## How will I learn?

<span class="subHeadCB">Student Effort Hours:</span>

Student Effort Type	Hours
Lectures	24
Small Group	12
Autonomous Student Learning	74
<b>Total</b>	<b>110</b>

## Am I eligible to take this module?

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

<strong>Learning Requirements:</strong>

<p>Satisfactory performance in CVEN30010</p>

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

<strong>Pre-requisite:</strong>

CVEN30010 - Geotechnics 2

<strong>Co-requisite:</strong>

CVEN40720 - Geotechnics 3

## How will I be assessed?

<span class="subHeadCB">Assessment Strategy</span>

Description	Timing	Open Book Exam	Component Scale	Must Pass Component	% of Final Grade
Examination: Online Exam	2 hour End of Trimester Exam	Yes	Graded	No	70
Project: Site investigation and geotechnical design project to last 6 weeks during semester	Throughout the Trimester	n/a	Graded	No	30

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

Yes</div>

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## What happens if I fail?

Resit In	Terminal Exam
Autumn	Yes - 2 Hour

## Assessment feedback

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

<p>\* Group/class feedback, post-assessment

\* Peer review activities

\* Self-assessment activities

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

<p>Feedback from the group project is provided to groups during the semester, in advance of the final summative exam. As part of this project, students are asked to review their peers.

Two group summary quizzes are conducted during the module, in order to provide formative feedback to the students. This provides students with an opportunity for self assessment.</p>

## Reading List

<div class="pageBreak"><nav class="white-box no-left-arrow zero-top-margin">

<h1 class="printOnly"> UCD Course Search

Geotechnics 4 (CVEN40210) </h1><h3 class="printOnly">Academic Year 2019/2020</h3><p class="printOnly"><em>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.</em></p>

<h4 class="noPrint">Geotechnics 4 (CVEN40210)</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>4 (Masters)</dd>

<dt>Credits:</dt>

<dd>5.0</dd>

<dt>Trimester:</dt>

<dd>Spring</dd>

<dt>Module Coordinator:</dt>

<dd>Dr Shane Donohue</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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Page</button>  
<span style="font-size:0.8em"><em>(<a href="https://www.google.com/chrome/" target="\_blank">Google Chrome</a> is recommended when printing  
this page)</em></span></div>

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