Stage 2 Civil Engineering and Structural Engineering with Architecture

Welcome Session

Dr. Páraic Carroll, Year Head
paraic.carroll@ucd.ie
Room G77, Newstead Building

Programme Directors

- **Civil Engineering**

- Assistant Prof. Daniel McCrum

daniel.mccrum@ucd.ie

- **Structural Engineering with Architecture**

- Associate Prof. Arturo Gonzalez

arturo.gonzalez@ucd.ie

Head of School, Civil Engineering

- Associate Prof. Amanda Gibney

College Dean – Engineering & Architecture

- Professor Aoife Ahern

Associate Dean – Engineering & Architecture

- Associate Prof. Vincent Hargaden

College Office

- **Programme and Operations Manager (Engineering)**

- Debra Heeney

- **Director, College of Engineering and Architecture Office**

- Sue Philpott

- **Student Advisor, College of Engineering and Architecture**

- Dr. Julia Maher

College Administration Team Contacts:
https://www.ucd.ie/eacollege/contact/collegeadministration/

Civil Engineering & SEA

STAGES 2 & 3

- Prepare graduates to work in any of the main civil engineering sub-disciplines, such as:

- Structural Engineering: from buildings to bridges
- Water and Environmental Engineering: from pipelines to pumping stations (Civil)
- Geotechnical Engineering: from undergrounds to tunnels
- Transportation Engineering: from roads to cycle lanes (Civil)

50 credits of Core Modules, and 10 credits of Elective Modules. Students should choose one Elective Module from each Trimester, to ensure a balanced workload of 30 credits per Trimester

Current **Civil Engineering** Syllabus

Core Modules

- 50 credits of Core Modules

Module ID	Module Title	Trimester	Credits
Stage 2 Core Modules			
CVEN20030	Environmental Engineering Fundamentals	Autumn	5
CVEN20080	Construction Materials	Autumn	5
CVEN20110	Geotechnics 1	Autumn	5
CVEN20130	Hydraulics I	Autumn	5
MATH20290	Multivariable Calculus for Eng	Autumn	5
CVEN20010	Mechanics of Solids	Spring	
CVEN20070	Computer Applications in Civil Engineering	Spring	
CVEN20120	Construction Practice	Spring	
CVEN20140	Design and Communications	Spring	
STAT20060	Statistics & Probability	Spring	

Current **Civil Engineering** Syllabus

Option/ Elective Modules

- May select 2 Elective Modules. Can be selected from anywhere in UCD but the following are suggested Engineering related Electives.
- Total number of credits must be 30 per trimester

ARCT20040	History & Theory of the Designed Environment III - Survey Course 2	Autumn
CHEN20050	Bioprocess Engineering Principles	Autumn
COMP20080	Computer Science for Engineers II	Autumn

CVEN20040	The Engineering & Architecture of Structures 2	Spring
MEEN20030	Applied Dynamics I	Spring
MEEN20070	Materials Science and Eng. I	Spring

Current **Structural Engineering with Architecture** Syllabus

Core Modules

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Module ID	Module Title	Trimester	Credits
Stage 2 Core Modules			
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CVEN20080	Construction Materials	Autumn	5
CVEN20110	Geotechnics 1	Autumn	5
MATH20290	Multivariable Calculus for Eng	Autumn	5
CVEN20010	Mechanics of Solids	Spring	
CVEN20040	The Engineering & Architecture of Structures 2	Spring	
CVEN20070	Computer Applications in Civil Engineering	Spring	
CVEN20120	Construction Practice	Spring	
CVEN20140	Design and Communications	Spring	
STAT20060	Statistics & Probability	Spring	

Current **Structural Engineering with Architecture** Syllabus

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CVEN20130	Hydraulics I	Autumn	5

Civil & Structural Engineering Society

- The Civil / Engineering societies are official UCD societies
- It holds events of interest to Civil Eng students
  - Trips/outings
  - Lectures
- There is a budget for activities provided by central UCD
- It is good to have early-stage students involved, some of whom will continue with the Society in future years

https://societies.ucd.ie/civilengineering/

Civil Eng Page

https://societies.ucd.ie/engineering/

Engineering Page

Class Representative

- It is important to have a Class Rep.
  - Convey queries from students to staff (staff-student forum)
  - Provide a means for staff to consult with students
- Please email me (paraic.carroll@ucd.ie) if you are willing to volunteer or if you would like to nominate someone from the year
- Ideally we need separate Class Rep's for Stage 2 Civil and Stage 2 SEA

Software Download

- UCD IT Services provides access to a wide range of software: https://www.ucd.ie/itservices/ourservices/software/softwaredownloads/.

- There is some excellent free software for students that only works on Windows
  - Revit (and other Autodesk products)
  - Ansys (Finite element software)
- These will be used in some of the modules – if you are about to buy a laptop better to get a Windows machine

Milestones

Civil: 4 or 5 year degree

BSc at end of Stage 3: decision point as to whether BE or ME

BE at end of Stage 4

ME at end of Stage 5

SEA: Integrated 5 year degree

BSc at end of Stage 3

ME at end of Stage 5

Note to Students Taking 5-year Programmes

- The results of your B.Sc. Degree is calculated based on 30% Stage 2 + 70% Stage 3

For all Students: Pre-requisites

- You can progress from one stage to another provided you have attained a minimum of **50 credits**.
- Many Stage 3 modules have pre-requisites in Stage 2
- However, you cannot take the next stage module if you have failed the pre-requisite module

Your Degrees

- Engineers Ireland (EI) is the legally recognised institution for Engineering in Ireland
- BE, ME etc. all accredited and we are committed to this which takes place every 5 years.
- EI and ourselves recommend that the most appropriate way forward towards being a Chartered Engineer is to qualify with an ME degree
- If you qualify with a BE degree you will essentially have to do “further learning” to Masters level in order to become chartered

Institution Membership

- You can join Engineers Ireland now as a student member (it's free)
- https://www.engineersireland.ie/students

- Institution of Structural Engineers (http://www.istructe.ie/)
  - They have a very active Rep. of Ireland branch

- Institution of Civil Engineers (ICE) is a UK institution with international branches including one here (https://www.ice.org.uk/about-ice/near-you/europe/republic-of-Ireland)

Awards & Prizes

- https://www.ucd.ie/students/scholarships/
- Stage scholarships available to the student with the highest GPA (has to be greater than 3.68) in their studies in Stages 2 and 3.
- Michéal Mac Cárthaigh Academic Performance Award

Common Room facility

- Facility is available for making tea/coffee and for having lunch.

Student Plagiarism Policy

- Students are responsibility for being familiar with the requirements in it

Academic Advising Webpage

- https://www.ucd.ie/civileng/study/academicadvice/

Stage 2 Coffee Morning

- TBD
- The coffee/ tea etc will be set up on tables in Newstead
- The goal is to build rapport between staff and students for informal, regular conversation, provision of guidance, and advice.

Questions?