



University College Dublin  
Ireland's Global University



## ME CIVIL ENGINEERING (dual degree) (TWO YEARS FULL TIME)

Globally, Civil Engineers are essential to the provision of transportation systems, bridges, buildings and other infrastructure, clean water, waste management, and earthworks.

With ever increasing global population, global urbanisation and global concerns about climate change, the formal training of engineers in a global context becomes crucial.

This programme offers\* students the chance to

develop their engineering skills in both University College Dublin and Columbia University, New York and to graduate with a dual degree from both universities.

The benefits to both graduates and the industry as a whole will be in the training of high-quality graduates with global knowledge and training of European and American engineering practices.

### DUAL DEGREE WITH COLUMBIA UNIVERSITY

Students have the opportunity to study in New York city for a year and receive a dual degree from New York's Columbia University (ranked 16th best university in the world) and University College Dublin. Students will complete a mixture of taught modules, a work placement and research over the course of their studies on this programme.

## COURSE CONTENT AND STRUCTURE

120  
ECTS credits

+

30  
US credits

60 ECTS completed in first year in UCD. 30 US credits in second year in New York + 60 ECTS from UCD at the same time.

Stage 1 in UCD comprises 6 core modules in the Autumn Trimester (30 ECTS) and either a Professional Work Experience placement (30 ECTS) which runs across the Spring and Summer Trimesters or a Design Project (10 ECTS) plus Option Modules (20 ECTS) which are undertaken in the Spring Trimester.

Students who complete Stage 2 in Columbia University, USA select their modules from the recommended course list for a chosen area of study/concentration (in consultation with Faculty Advisors in Columbia University). The 6 Areas of Study/Concentrations offered are: Construction Engineering & Management; Engineering Mechanics; Environmental Engineering & Water Resources; Forensic (Structural) Engineering; Geotechnical Engineering; Structural Engineering). Students will also undertake a year-long research project under the guidance of a supervisor in Columbia University.

#### Core modules include:

- Innovation Leadership
- Civil Engineering Systems
- Water Engineering
- Geotechnics 3
- Design of Structures 2
- Quant. Methods for Engineers
- Product Design Interfacial Engineering

#### Optional modules include:

- Advanced Air Pollution
- Environmental Engineering
- Design of Structures 3
- Transportation Ops & Planning
- Water & Wastewater Treatment
- Hydraulic Engineering Design
- Bridge Engineering
- Geotechnics 4
- Water Waste and Environmental
- Highway Engineering
- Professional Engineering Finance
- Professional Engineering Management
- Technical Communications
- Statistical Machine Learning

## WHY STUDY AT UCD?



### Professional Work Experience

6-8 month Professional Work Experience internship opportunity



### Tradition

Established 1854, with 160 years of teaching and research excellence



### Global profile

UCD is ranked in the top 1% of higher education institutions worldwide



### Global community

Over 8,400 international students from over 140 countries study at UCD



### Global careers

Degrees with high employability; dedicated careers support; two-year stay-back visa (for non-EU students)



### Safety

Modern parkland campus with 24-hour security, minutes from Dublin city centre



\*Students will need to have a minimum GPA of 3.08 from UCD (equivalent to 2:1), complete the Graduate Record Examination (GRE) and with the support of UCD make an application to Columbia University for acceptance. Students who are unsuccessful will complete Stage 2 of their degree in UCD.

## CAREER OPPORTUNITIES

There are excellent job opportunities for graduates of this dual master's programme in civil engineering design and construction, damage assessment and disaster relief, working in the developing world as engineers with NGOs, project management and site management. Established civil engineering employers with a presence in both Ireland, the US and around the world include Arup, Jacobs and AECOM.



## FACILITIES AND RESOURCES

The School of Civil Engineering will be located in the newly built state-of-the-art centre for creativity when constructed in 2024. Modules are taught by faculty-engaged, leading-edge researchers, working in collaboration with national and international known industrial and academic researchers.

## APPLY NOW

This programme receives significant interest so please apply early online at [www.ucd.ie/apply](http://www.ucd.ie/apply)

## ENTRY REQUIREMENTS

### For UCD:

- A first cycle honours (2:1) bachelor's degree in civil engineering or equivalent and the appropriate prior learning.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.

### For Columbia:

- GPA of 3.08 or better from UCD (equivalent to 2:1 or better)
- Students must also complete the Graduate Record Examination (GRE) and upload these test scores as part of their application. The GRE is a verbal reasoning, quantitative reasoning and analytical writing exam ([www.gre.org](http://www.gre.org)).

## SCHOLARSHIPS

- Dedicated scholarships for non-EU students
  - Apply for University Scholarship [www.ucd.ie/global/study-at-ucdscholarshipsfinances/scholarships/](http://www.ucd.ie/global/study-at-ucdscholarshipsfinances/scholarships/)
  - Apply for College scholarship [www.ucd.ie/eacollege/study/nonescholarships](http://www.ucd.ie/eacollege/study/nonescholarships)
- Approved by US Dept of Education for federally supported loans

## WORK IN IRELAND

- Option to stay in Ireland to seek employment and/or work for 2 years after graduating

## FEES

Fee information is available at [www.ucd.ie/fees](http://www.ucd.ie/fees)



## PROGRAMME DIRECTOR

Dr Jennifer Keenahan

While this dual-master's programme is new, the discipline of civil engineering is well-established and has a long-standing history in both UCD and Columbia University. Students will have the opportunity to learn in both institutes, each with an excellent track record in teaching and research. Students graduating with this dual-master's degree from UCD and Columbia will have international experience that is unrivalled in the global world of civil engineering. Society will clearly benefit from engineers with global training of both European and American practices.

## RELATED MASTER'S PROGRAMMES OF INTEREST

- MEngSc Structural Engineering
- MEngSc Water, Waste & Environmental Engineering
- ME Civil, Structural & Environmental Engineering

## CONTACT US

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