MEngSc Structural Engineering

University College Dublin Ireland's Global University



# MEngSc STRUCTURAL ENGINEERING (ONE YEAR FULL TIME / TWO YEARS PART TIME)

Studying at master's level, you will cover a wide range of topics not traditionally covered in undergraduate degrees. The programme includes specialist modules in structural dynamics, bridge engineering, structural design and professional engineering. You will also learn how to work in a multidisciplinary setting through combined modules with non-Engineering students.

Structural engineering is a continually evolving

profession, and through the third trimester Research Project you will learn how to apply this specialist knowledge to develop new concepts and ideas under the supervision of research-active academic staff. This programme will distinguish you as having specialist knowledge in the area of Structural Engineering and provide you with a competitive edge over your peers in the job market.

#### TOP INTERNATIONAL RANKING

This programme is delivered by a highly research-intensive school, which is in the top 200 in the QS world subject rankings. An example of this research activity is the coordination of the 3.7 million euro EU Horizon 2020 TRUSS (Training in Reducing Uncertainty in Structural Safety) Innovative Marie Sklodowska-Curie Innovative Training Network, that has brought together 6 leading Universities, 11 industry stakeholders and 1 research institute from 5 European countries countries, to develop tools for improving the maintenance and management of aging infrastructure.

#### WHY STUDY AT UCD?



#### **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

#### COURSE CONTENT AND STRUCTURE

**90 credits** taught master's

**30 credits** research project

**60 credits** taught modules

#### Topics include the following:

- Realising Built Projects
- Analysis of Structures 3
- Innovation LeadershipStructural Dynamics
- Advanced Materials
- Quantitative Methods for Engineers
- · Agency: Design/Build
- Design of Structures 3
- Bridge Engineering
- Geotechnics 4
- Professional Engineering
- Structural Research Project



Please see online for a full list of modules



Our graduates would typically follow careers in structural engineering consultancy, engineering contracting, construction management, and project planning both in Ireland and abroad.



Employed at master's level, graduates can expect more responsibility, and faster professional progression, earlier in their careers.

Graduates have progressed to career opportunities in a broad range of internationally recognised companies including: Roughan O'Donovan, Ove Arup & Partners, Sisk, Jacobs, RPS, OCSC, Walls, Ward & Burke, and Mott McDonald amongst others.

#### **APPLY NOW**

This programme receives significant interest so please apply early online at www.ucd.ie/apply

#### **ENTRY REQUIREMENTS**

- A 4-year bachelor's degree in Civil or Structural Engineering with a minimum upper second class honours (NFQ level 8) or international equivalent.
- 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.
- Students who do not meet the IELTS requirement may wish to consider taking the Pre-Sessional or Pre-Masters Pathway. Full details https://www.ucd.ie/alc/ programmes/pathways/

#### **SCHOLARSHIPS**

- Dedicated scholarships for non-EU students
  - Apply for University Scholarship www.ucd.ie/global/study-atucdscholarshipsfinances/scholarships/
  - Apply for College scholarship www.ucd.ie/eacollege/study/ noneuscholarships
- 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

## RELATED MASTER'S PROGRAMMES OF INTEREST

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



#### **GRADUATE PROFILE**

### Angelene Dascanio Thornton Tomasetti

This master's is fast paced, challenging, and encompasses the skills required for a career in structural engineering. It includes both general and specialty concepts; for example, I took modules in steel and concrete design, but was also able to take a bridge engineering module to fulfil my interest in that particular field. I was initially drawn to the programme because it uniquely incorporates some architecture modules into its curriculum. Also, I found the programme framework, 60 credits of coursework and 30 credits of a research project, to be very efficient. During the academic year I was able to focus solely on my coursework, meet with my professors for extra help, and study for examinations. Then, during the summer, my efforts were placed on carrying out a research project with the guidance of a professor in my field of interest. As an international student (from America), I felt welcomed by the faculty and fellow classmates. I experienced a smooth transition between the material I learned as an undergraduate and the material presented on this master's. As a whole, the programme effectively prepared me with the essential skills and knowledge needed to succeed in a structural engineering career.