

ME Biomedical Engineering

Two Years Full Time (September start)



Introduction

There are currently 250 medical technology companies in Ireland, exporting €12.6 billion worth of product annually and employing over 40,000 people – the highest number of people working in the industry in any country in Europe, per head of population. Biomedical Engineering involves the application of engineering principles to healthcare and medicine. It is an interdisciplinary field, requiring knowledge of both living systems and engineering. When studying on this programme, you will work with staff and researchers at

UCD who have extensive experience in ground-breaking biomedical engineering research. You will also develop a knowledge of how the medical device industry is regulated and how new products are introduced to the market, drawing from experience within UCD which includes pioneering companies. For more information visit www.ucd.ie/biomedicalengineering/. This ME programme is professionally accredited by Engineers Ireland and recognised by the Washington Accord for Chartered Engineer status.

Course Highlight

The ME Biomedical Engineering at UCD offers a 6-8 month work placement, exposure to world-leading researchers and superlative employment opportunities. With over 450 medtech companies based in Ireland, there are many potential options to choose from, gaining experience in start-ups, multinationals or also in more of a clinical research setting.

Course Content and Structure

- 120 credits taught masters
- 70 credits taught modules
- 20 credits Biomed Project
- 30 credits Work Experience

Modules include:

- Bioinstrumentation
- Biomaterials
- Biomechanics
- Biomedical Imaging
- Biomedical Signal Processing
- Biosensors & Actuators
- Cardiovascular Physiology for Engineers
- Cell Culture & Tissue Engineering
- Experimental Design and Statistics for Engineers
- Medical Device Design
- Medical Sciences for Biomedical Engineers
- Musculoskeletal Biomechanics and Mechanobiology
- Neural Engineering
- Rehabilitation Engineering

Why study at UCD?



Graduate education

12,800 graduate students; 17% graduate research students; structured PhDs



Global community

9,500 international students and a 300,000 alumni network across 165 countries



Global Profile

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



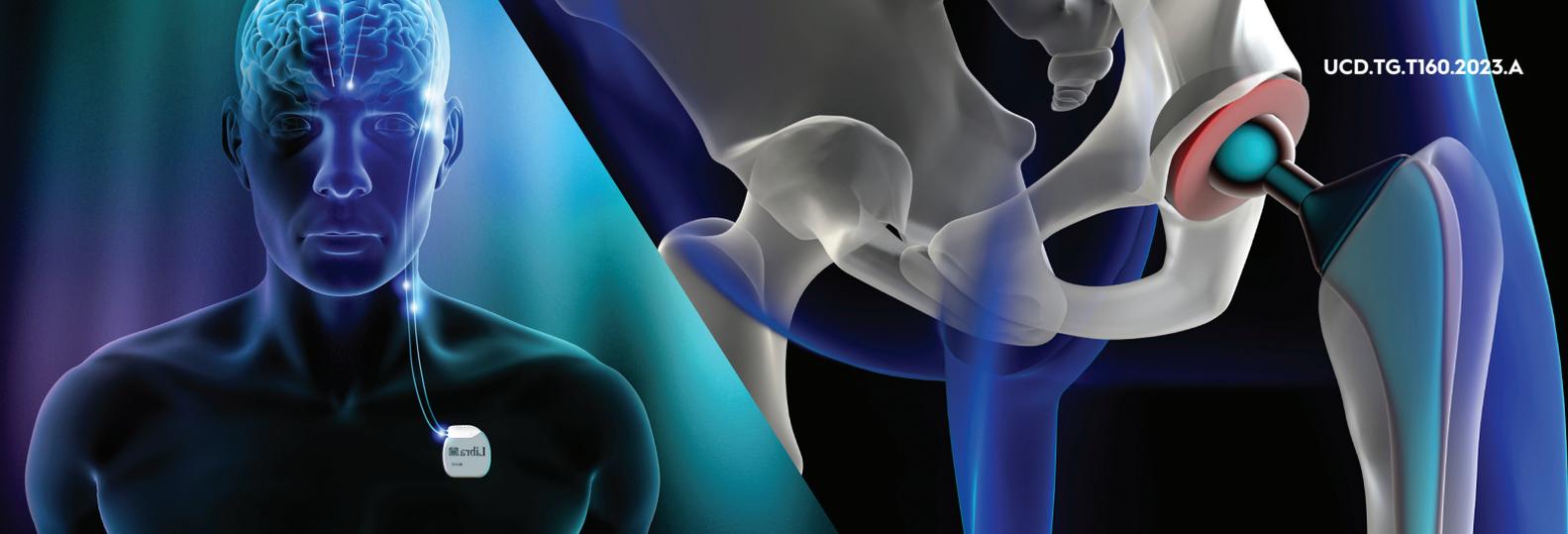
Global careers

Dedicated careers support; 2-year stayback visa to work in Ireland



ENGINEERS
IRELAND

ACCREDITED PROGRAMME



Career Opportunities

The Irish medtech sector is robust and career opportunities upon graduation from this programme are exemplary. Exports of medical devices and diagnostics products now represent 8% of Ireland's total merchandise exports and growth prospects for the industry globally remain good. Many of the world's top medical technology companies have invested significantly in Ireland and a number of exciting, research-based, indigenous companies are emerging and competing internationally. The Irish Government has identified the medical technology sector as one of the key drivers of industrial growth for the future and provides a wide range of supports to encourage and foster this growth. The medical technology industry in Ireland is changing from being predominantly manufacturing to being more complex and driven by R&D. Prospective employers include medtech startups and multinationals including Medtronic, BostonScientific, De Puy, ResMed, Shimmer and Stryker.

Graduate Profile

Dhanashree Gokhale
Health Products Regulatory Authority



I chose UCD due to the quality of research done in this field and the structure of the ME Biomedical Engineering programme. While allowing students to pick from a wide range of subjects from the schools of engineering, science and medicine the course also focuses on improving professional skills with the inclusion of the work experience internship, which was truly beneficial. UCD's emphasis on research plays a key role in ensuring that students are exposed to a high standard of learning and have experienced staff to guide them throughout the course and with options thereafter. While the coursework at UCD including the projects undertaken as part of the ME programme contribute towards my role as a scientific officer, the network of UCD alumni and staff continue to provide support and guidance wherever and whenever needed.

Applicant Profile

- Applicants must hold a bachelor's degree with a minimum upper second class honours (NFQ level 8) or international equivalent in a relevant Mechanical, Electronic, Electrical, Mechatronic or Biomedical Engineering programme.

- 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/alp/programmes/pathways/>

International Fees and Scholarships

Tuition fee information is available on www.ucd.ie/fees. Please note that UCD offers a number of graduate scholarships for full-time, self-funding international students, holding an offer of a place on a UCD masters programme. Please see www.ucd.ie/global/scholarships/ for further information.

Related Masters Programmes of Interest

- MSc Biotechnology
- MSc Connected Health
- ME Electronic & Computer Engineering
- ME Mechanical Engineering

CONTACT US

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