Rehabilitation Engineering and Assistive Technologies MSc /

This exciting programme focuses on the design, development and clinical application of novel rehabilitative and assistive technologies. The programme is delivered by the Aspire Create team, which is engineering the next generation of these technologies, in partnership with clinicians at the Royal National Orthopaedic Hospital.

Degree summary

You will engage in research-based learning and work on real-world medical engineering projects which are driven by a clinical need. Throughout the MSc, you will receive core training in “anatomy for engineers”, biomechanics and research methodologies, before choosing modules that explore cutting-edge topics ranging from robotics and electronic implants to social cognitive rehabilitation and “disability and development”.

// Rehabilitation engineering promises to revolutionise the way patients regain their independence. Complementary to drugs and surgery, this unique MSc focuses on how state-of-the-art technologies can be developed and translated into clinical practice.

// You will tackle real problems, faced by people with complex and challenging medical conditions, such as spinal cord injuries and stroke.

// There are plenty of networking opportunities throughout the course, which is run by internationally renowned UCL academics, in conjunction with clinicians at the Royal National Orthopaedic Hospital; assistive technology specialists from the Aspire charity; and our industrial research partners.

The programme is delivered through a combination of interactive lectures, seminars and hands-on laboratory sessions, supported by exercise/problem sheets and opportunities for reflection and discussion. Assessment is through coursework, research project reports, mini-vivas, MCQs and written exams. The programme will be taught mostly at the Royal National Orthopaedic Hospital in Stanmore, London. Some teaching will also take place in Bloomsbury.

Degree structure

Mode: Full-time: 1 year; Flexible: up to 5 years
Location: London, Stanmore

Students undertake modules to the value of 180 credits. The programme consists of four core modules (60 credits), two optional modules (30 credits), a group research module (30 credits) and an individual project (60 credits).

CORE MODULES
- Anatomy and Physiology for Engineers
- Assistive Technology Devices and Rehabilitation Robotics
- Biomechanics for Assistive Technologies
- Research Methods and Experiment Design
- Group research projects
- Individual research project

OPTIONAL MODULES
- All students participate in two group research projects which put the theory from the core modules into practice. Each project results in a group report and an individual mini-viva.
- Disability and Development
- Electronic Devices and Implant Technologies
- Inclusive Design and Human-Machine Interfaces
- Social Cognitive Rehabilitation

DISSERTATION/REPORT
- All students undertake an independent research project which culminates in a dissertation of 10,000-12,000 words.
Your career

Typical career destinations for our graduates range from, but are not limited to: academic researchers, biomedical R&D engineers, clinical scientists, and entrepreneurs who spin out their project work into start-up companies.

Employability

This course will give you the opportunity to enhance your employability by gaining and refining both technical and transferrable skills. Not only will you gain specialist theoretical knowledge, you will also learn how to put this into practice through our research based learning activities. The highly interdisciplinary research focus of this course will give you experience of the academic, clinical and third sectors. Importantly, you will refine your communication skills by interacting with different audiences (technical, clinical and lay) and learn how to pitch your arguments at the right level – this is a highly valued skill in any sector.
Entry requirements

Prospective students should have a minimum of an upper second-class UK Bachelor’s degree in Biomedical Science (including Medicine), Engineering, Computer Science or Physics; an overseas qualification of an equivalent standard; or sufficient relevant professional experience.

English language proficiency level

If your education has not been conducted in the English language, you will be expected to demonstrate evidence of an adequate level of English proficiency.

The level of English language proficiency for this programme is: Good.

Information about the evidence required, acceptable qualifications and test providers is provided at:
www.ucl.ac.uk/graduate/english-requirements

Your application

Students are advised to apply as early as possible due to competition for places. Those applying for scholarship funding (particularly overseas applicants) should take note of application deadlines.

When we assess your application we would like to learn:

- why you want to study Rehabilitation Engineering and Assistive Technologies at graduate level
- why you want to study Rehabilitation Engineering and Assistive Technologies at UCL
- what particularly attracts you to the chosen programme
- how your academic and professional background meets the demands of this challenging programme
- where you would like to go professionally with your degree

Together with essential academic requirements, the personal statement is your opportunity to illustrate whether your reasons for applying to this programme match what the programme will deliver.

FEES AND FUNDING 2017/18 ENTRY

- UK: £12,020 (FT), £6,125 (PT)
- EU: £12,020 (FT), £6,125 (PT)
- Overseas: £24,140 (FT)

The tuition fees shown are for the year indicated above. Fees for subsequent years may increase or otherwise vary. Further information on fee status, fee increases and the fee schedule can be viewed on the UCL Current Students website.

Full details of funding opportunities can be found on the UCL Scholarships website: www.ucl.ac.uk/scholarships

APPLICATION DEADLINE

All applicants: 1 September 2017

Details on how to apply are available on the website at:
www.ucl.ac.uk/graduate/apply

CONTACT

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EU referendum

For up-to-date information relating to specific key questions following the UK’s decision to leave the EU, please refer to
www.ucl.ac.uk/eu-referendum