BIOMEDICAL ENGINEERING
The MRes in Biomedical Engineering is a multidisciplinary programme that combines knowledge of the physical and life sciences with advances in technology and engineering to generate applications and solutions to clinically relevant problems.

The main aim of the programme is to produce postgraduates capable of developing careers in biomedical engineering (research, industrial and NHS) independent of the subject of their first degree (physical sciences, engineering or life sciences). To facilitate this, we have fostered a multidisciplinary learning environment in which cross fertilisation of ideas and concepts from science, medicine and engineering enable the development of relevant clinical and industrial research.

Visits to local clinical centres and lectures from industrialists and visiting experts from the UK and overseas are an integral part of our courses. You will also have the opportunity to meet our many industrial and clinical collaborators to help advise and further your career.

Course Structure
The MRes Biomedical Engineering requires a total of 180 credits, which consists of 60 taught credits and 120 credits obtained through the submission of a research thesis.

Taught classes, laboratory demonstrations, practical exercises and clinical visits take place during semesters 1 and 2. During this time, students are also expected to conduct their own research project. Further course information is detailed in the Student Handbook which is available to download from the Biomedical Engineering website (details on back page).

Compulsory Classes
- Engineering Science OR Medical Science
- Professional Studies in Biomedical Engineering
- Research Methodology
- MRes Project

Advanced Classes
(minimum of two to be chosen)
- Biomedical Electronics
- Biomedical Instrumentation
- Introduction to Biomechanics
- Prosthetics and Orthotics
- Regenerative Medicine and Tissue Engineering
- Tissue Mechanics
- Clinical and Sports Biomechanics
- Bio-signal processing and analysis
- Biomaterials and Biocompatibility
- Cardiovascular Devices

Duration of Course
12 months full-time
Bioengineering at Strathclyde

The Department of Biomedical Engineering was formed in 2012 following the merger of the Bioengineering Unit and the National Centre for Prosthetics and Orthotics. The merger connects two complementary and key areas of health technology teaching and research within the University. The single department offers students unrivalled undergraduate and postgraduate opportunities for learning and knowledge exchange in prosthetics and orthotics and for advanced postgraduate study in a broad range of biomedical engineering disciplines.

The Bioengineering Unit was established 50 years ago and is an internationally-recognised centre of excellence for postgraduate education and research at the interface between engineering and the life sciences, with particular emphasis on clinically-related research. The goal of the Unit is to transform and improve future healthcare through innovations and advances in science in technology.

The National Centre was established in 1972. The Centre’s interests in training, education and research span the fields of prosthetics, orthotics and related aspects of the provision of aids for the disabled. It is one of only two institutions in the UK offering undergraduate and postgraduate education in Prosthetics and Orthotics, and is the only institution in the world to offer the five year programme to MSci level.

We have developed a rich translational research environment that enables new talent to thrive, and develop within innovative research programmes and collaborations which are supported through our established clinical and industrial multidisciplinary networks. We believe this approach provides us with the capability to continue to prosper in a rapidly evolving and competitive research landscape.

We are committed to producing high quality research output, training and knowledge transfer and much of our work is clinically driven and conducted in collaboration with clinical or industrial partners. Students are part of a thriving community of researchers dedicated to advancing the interface between engineering, science and medicine. Work in teams, augmented by the incoming expertise and facilities of our external collaborating partners and visiting professors, is a key strength of the Unit.

The Bioengineering Unit is also a major partner in the following collaborative ventures:

- HealthQWest
- Health Technologies Knowledge Transfer Network
- The Glasgow Health Technology Cooperative
Entry Requirements
First- or second-class Honours degree, or equivalent, in engineering, physical science, life science, medicine, or a profession allied to medicine.

Fees
For information on current fee levels, see: www.strath.ac.uk/tuitionfees

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www.strath.ac.uk/biomedeng