THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

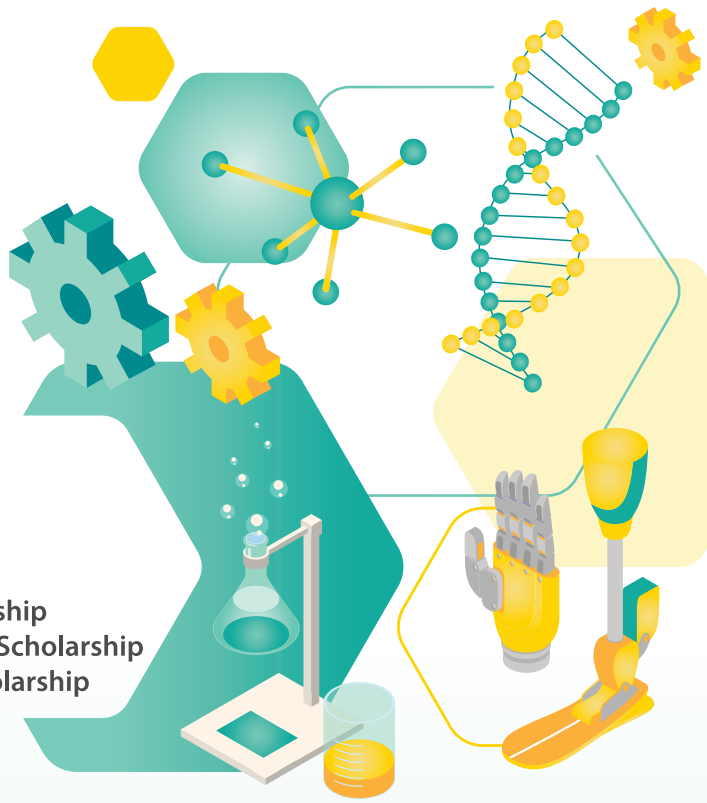
FACULTY OF ENGINEERING
工程學院
WHERE CONCEPTS BECOME REALITY

BME DEPARTMENT OF BIOMEDICAL ENGINEERING
生物醫學工程學系

MSc IN BIOMEDICAL ENGINEERING

生物醫學工程碩士學位

(Programme Code: 47002)



Specialisms

- Biomedical Engineering
- Rehabilitation Engineering
- Digital Health

Scholarships

- Excellent Entrance Scholarship
- Outstanding Performance Scholarship
- Excellent Dissertation Scholarship

Normal Duration
1 year for full-time
2.5 years for part-time

Credits Required
31 credits for
eligible graduation

Medium of Instruction
English

PROGRAMME AIMS

The Master of Science in Biomedical Engineering is an ideal choice for those who would like to pursue advanced education in biomedical engineering, rehabilitation engineering, digital health as well as others interested in assistive and health technology, with an opportunity to develop advanced levels of knowledge and skills for healthcare.

This biomedical engineering award addresses the growing importance of the development of state-of-the-art medical devices, assistive, digital and other health technologies for affordable healthcare. It is designed for engineers, scientists and health professionals who are interested in the health technology field. We provide students with a broad-based knowledge of advances in biomedical engineering, rehabilitation engineering and digital health, thus enhancing their ability to develop and apply technology in health and rehabilitation care.

CHARACTERISTICS

Students have the flexibility to choose the specialism Biomedical Engineering, Rehabilitation Engineering or Digital Health. The fulfilment of the stipulated graduation requirement leads to the award of Master of Science in Biomedical Engineering , Master of Science in Biomedical Engineering (Rehabilitation Engineering) or Master of Science in Biomedical Engineering (Digital Health).

We adopt interdisciplinary approaches in our teaching and learning. Subjects are designed at postgraduate level that may call upon work experience from students, so that integration of theory with practice can be better realized. Teaching and learning methods are student-centered, and problem-based when appropriate with a range of activities such as experience sharing, seminars, tutorials, laboratory/ practical classes and case studies. Independent guided study and research-based dissertation will also be incorporated to allow flexibility for students to have in-depth study and research on their area of interest.

Contact Us

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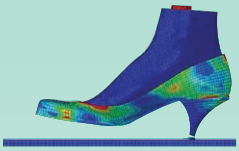
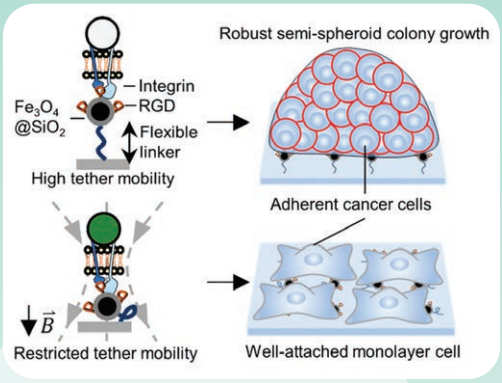
Polyubme
PolyU BME

Electromyography

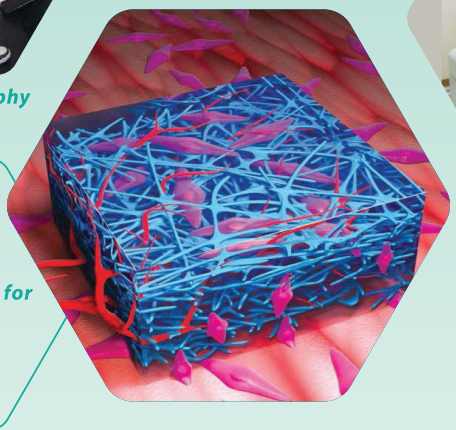


Simulation of foot biomechanics

Assessment of scoliosis using 3D ultrasound



Molecular and cellular engineering



Nanofiber scaffold for tissue engineering

Mobile Ankle-foot Exoneuromusculoskeleton

AWARD REQUIREMENTS

For each specialism , students should complete the designated Compulsory Subjects and other Elective Subjects. Students are encouraged to select the research-based Dissertation with a topic that is relevant to their professional and personal interest.

ENTRANCE REQUIREMENT

- A Bachelor's degree in engineering or applied sciences; OR
- A degree in a healthcare discipline or a related field; OR
- An equivalent qualification

No entrance examination, recruitment is based on the university transcript.

ENGLISH LANGUAGE REQUIREMENTMENT

If you are not native speaker of English, or your Bachelor's degree or equivalent qualification is awarded by institutions where the medium of instruction is not English, you are expected to fulfill the following minimum English language requirement for admission purpose:

- A score of 80 or above in the Test of English as a Foreign Language (TOEFL) Internet-based test; OR
- An Overall Band score of 6.0 or above in the International English Language Testing System (IELTS) Academic module.

PROGRAMME DETAILS

SUBJECTS OF STUDY

- Advanced Prosthetics and Orthotics (高級假肢與矯形學)
- Advanced Topics in Health Technology (健康技術高級主題)
- Biomaterials & Tissue Engineering (生物材料與組織工程)
- Biomedical Microdevices (生物醫學微器件)
- Clinical and Sports Biomechanics (臨床及運動生物力學)
- Digital Design and Manufacturing for Biomedical Engineering (生物醫學中的數碼化設計與製造)
- Dissertation (研究論文)
- Intellectual Property, Standards & Regulations of Medical Devices (醫療器械的知識產權，標準和法規)
- Medical Artificial Intelligence and Data Analytics (醫學人工智能與數據分析)
- Modern Rehabilitation Engineering and Robotics (現代康復工程與機器人)
- Molecular and Functional Imaging: From Body System to Molecules (分子和功能成像：從人體系統到分子)
- Nanobiotechnology (納米生物技術)
- Research Methods & Biostatistics (研究方法與生物統計學)
- Wearable Technology for Digital Health (數碼健康的可穿戴技術)