



JUPAS CODE 課程編號:  
JS1211 BEngBME

## **BEng Biomedical Engineering (Features: Medical Technology / Bioinstrumentation / Cell and Tissue Engineering / Healthcare Robotics)**

**工學士 (生物醫學工程)  
(特點: 醫療技術 / 生物儀器 /  
細胞和組織工程 / 醫療機器人)**

Biomedical engineering leads the way in cross-disciplinary research and education at the intersection of engineering and life sciences. Through the fusion of engineering and life sciences, biomedical engineering is expected to address many emerging challenges facing us in engineering, biological science, and human health.



Department of  
Biomedical Engineering

香港城市大學  
City University of Hong Kong





## WHY IS THIS MAJOR NEEDED?

Healthcare is one of the fastest-developing fields. Air and chemical pollution in modern city, fast spreading of infectious diseases, cancer, aging-related obesity, diabetes, and Alzheimer's disease, all impose enormous pressure threatening our health and quality of life. However, because of many challenges ahead in this dynamic field, it requires a discipline which can integrate the knowledge of engineering and life sciences at the intersection for medical solutions and innovations.

Hong Kong government clearly identifies medical and testing/certification services being among the six industries which Hong Kong has clear advantages for further development. Considerable amount of job opportunities will be created locally and globally. Aligned with this, Biomedical Engineering will serve to educate the future professionals, ultimately positioning Hong Kong to become a major centre in the following areas:

- New biomedical devices for disease diagnosis, monitoring, surveillance, and therapeutic treatment
- Food safety and bio-security
- New drug discovery

## OBJECTIVES OF THE MAJOR

This major aims to pursue excellence in education, research, and innovation through the fusion of engineering with life sciences for the advancement of human health. Students will be well prepared for the following:

- be able to apply their skills to a variety of challenges in their chosen field.
- be equipped with spirits of innovation, creativity, adaptability, and critical thinking to solve problems in the biomedical engineering related professions.

- to function effectively in multidisciplinary team environments and communicate to a variety of audiences.
- to demonstrate competency in their chosen fields, and make decisions that are socially and ethically responsible.
- to build and expand upon their undergraduate foundations by engaging in learning opportunities throughout their careers.

## CAREER PROSPECTS

Upon graduation, you will find career opportunities in the medical device industry, engineering services in hospitals, consultation for public health, regulation and management in government departments and laboratories, and research and development in the commercial and educational sectors, or you can pursue postgraduate studies both locally or overseas. After completing this major, you will possess expertise that will meet the needs from the increasing public concerns and demands on medical diagnostics and therapeutic treatments, biomedical instruments, food safety and quality, advancement in pharmaceutical and health maintenance products, as well as the awareness for human health and wellness.





## ENTRANCE REQUIREMENTS AND ADMISSION ARRANGEMENTS

To be eligible for admission, you must satisfy the University's General Entrance Requirements, with at least one elective subject in Physics, Chemistry or Biology for HKDSE applicants.

JUPAS HKDSE students will apply for admission to the Department of Biomedical Engineering with direct admission to the Bachelor of Engineering – Biomedical Engineering programme (JS1211). During their first year, students will study a broad range of Gateway Education (GE) and College core courses.

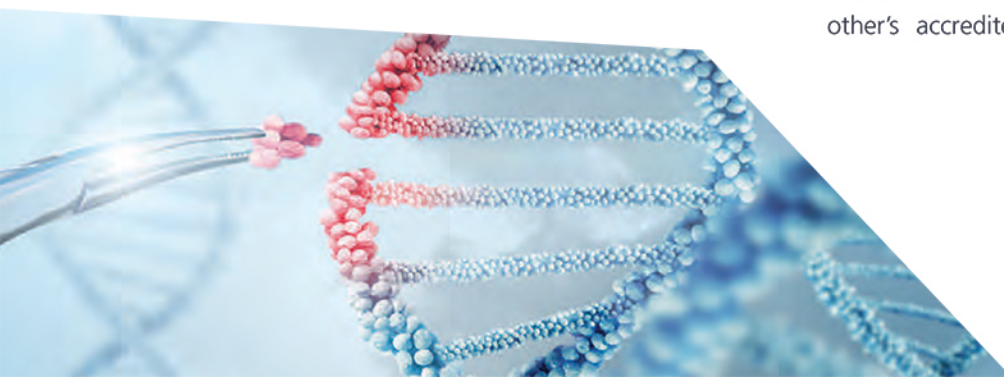
Direct/non-JUPAS applicants are expected to have, or to be close to having, Associate Degrees or Higher Diplomas

with high grades (CGPA  $\geq 3.0$  or equivalent) or credit awards in Science- or Engineering-related disciplines. Preference will be given to applicants with Physics and Mathematics background.

The major requires a total of 120 credit units. Applicants with Associate Degree, Higher Diploma or equivalent qualifications may be admitted with Advanced Standing I.

## PROFESSIONAL RECOGNITION

This major has been granted accreditation by the Hong Kong Institution of Engineers (HKIE), a signatory member of the Washington Accord, under which all members agree to recognize each other's accredited engineering degree programmes.





# STUDENT ACTIVITIES AND INTERNSHIP OPPORTUNITIES

## International Experience



HKIE UK Delegation



Medical Expo in Dubai



Singapore Study Tour

## Student Exchange



## Internships and Industrial Exposure



Gleneagles Hospital

## Scholarships, Awards and Competitions



Innovation Competition in Canada

Hong Kong Adventist Hospital



CityU BME Fair



Innovation and Technology Scholarship Award



CityU BME Competition

## ENQUIRIES

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College of Biomedicine

City University of Hong Kong

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