



香港城市大學  
City University of Hong Kong

# College of Engineering



## World Recognition

Quacquarelli Symonds (QS) World University Rankings

Worldwide (2021) By Subjects (2021)

**48<sup>th</sup>** **Top 100**

- Architecture
- Civil & Structural Engineering
- Computer Science & Information Systems
- Electrical & Electronic Engineering
- Materials Science

Academic Ranking of World Universities (ARWU) (2020)

By Subjects

**Top 50**

- Automation & Control
- Biomedical Engineering
- Civil Engineering
- Computer Science & Engineering
- Instruments Science & Technology
- Materials Science & Engineering
- Metallurgical Engineering
- Nanoscience & Nanotechnology
- Telecommunication Engineering

**Top 100**

- Electrical & Electronic Engineering
- Mechanical Engineering
- Transportation Science & Technology

U.S. News and World Report University Rankings (2020)

City University of Hong Kong

**13<sup>th</sup>** Best Global Universities for Computer Science

**15<sup>th</sup>** Best Global Universities for Electrical and Electronic Engineering

**16<sup>th</sup>** Best Global Universities for Engineering



# Bachelor's Degree

For admission to the 4-year bachelor's degree, students will be enrolled to one of the departments and choose majors available in the respective department after completing the first year of study, except for departments offering one single major.

## Department of Architecture and Civil Engineering

(852) 3442 7609 @acedept@cityu.edu.hk www.ace.cityu.edu.hk

### Architectural Engineering

This major is fully accredited by the Hong Kong Institution of Engineers (HKIE) as a recognized degree for applying professional engineer qualification. The major aims to provide students with the academic background necessary for a professional architectural and building services engineer. They will be able to manage the design, manufacturing, installation, commissioning and maintenance of various building services engineering systems including air-conditioning systems, electrical services, fire protection systems and pipe systems. They will also be equipped with the concept of integration between various disciplines within the architectural and building services engineering and also the other trades of the building industry.

JUPAS Catalogue No.

**JS1201**

### Civil Engineering (with 2 streams in Structural Engineering / Infrastructure and Smart City)

This major is fully accredited by the Hong Kong Institution of Engineers (HKIE) as a recognized degree for applying professional engineer qualification. This major aims at equipping students with a solid foundation to work as a civil engineer. It covers a wide spectrum of areas, for example, construction technology and materials, engineering management, environmental engineering, geotechnical engineering, green urbanism, hydraulic engineering, structural engineering and transportation engineering. There are two specialisms in the major: structural engineering, and infrastructure & smart city. Graduates are expected to work as civil/structural engineers, geotechnical engineers, construction and site engineers, construction project managers, building engineers, transport engineers, etc. in private and government sectors. There are opportunities for further studies and research at graduate levels in Hong Kong, Mainland China and overseas.

### Surveying

This Hong Kong Institute of Surveyors (HKIS) and The Royal Institution of Chartered Surveyors (RICS) accredited major aims to provide students with the necessary skills to i) participate in real estate and infrastructure development, ii) analyse building development proposals, iii) appraise contemporary building science and engineering techniques, iv) advise on appropriate means of procurement, v) pursue financial control of construction projects and vi) apply a multi-disciplinary approach to manage construction processes.



## Department of Biomedical Engineering

(852) 3442 8420 @bmegeo@cityu.edu.hk www.cityu.edu.hk/bme

### Biomedical Engineering

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 prepared to apply their skills to a variety of challenges in their chosen field, to solve problems in the biomedical engineering related professions, to make decisions that are socially and ethically responsible, and to build and expand upon their undergraduate foundations by engaging in learning opportunities throughout their careers.

Graduates from this major are expected to possess expertise that will address 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.

JUPAS Catalogue No.

**JS1211**

## Department of Computer Science

(852) 3442 8580 @csadm@cityu.edu.hk www.cs.cityu.edu.hk

### Computer Science

The major aims to provide the best possible undergraduate education with a well-balanced emphasis on computer science theories, practical hands-on development skills, as well as software engineering know-how that are necessary for successful careers as professional software developers, system analysts, system architects and technology officers. Our study streams (Data Science, Information Security, Multimedia Computing, Software Engineering and Project Management, and Artificial Intelligence) allow students to further specialize in different areas of expertise. In addition, the major has a mandatory placement component that allows students to gain real world experience, which will provide a significant edge when students look for employment after graduation.

JUPAS Catalogue No.

**JS1204**



## Department of Electrical Engineering

(852) 3442 7740 @ eedept@cityu.edu.hk www.ee.cityu.edu.hk

### Computer and Data Engineering

JUPAS Catalogue No.  
**JS1205**

The aim of this major is to provide students with a strong foundation and broad skills in the computer and data analysis technologies. Students will be equipped with the knowledge in both theoretical and practical aspects of computer systems. The curriculum encompasses hardware and software design, multimedia technologies, data analytics and security, cloud computing systems, machine learning, and artificial intelligence. Upon completion of the major, students will be sufficiently prepared for employment, and to pursue postgraduate studies and engage in life-long learning.

### Electronic and Electrical Engineering

The aim of this major is to provide students with a solid education in advanced electronic and electrical technologies. Students will be exposed to the latest developments in (1) wireless communications & data technology; (2) terahertz & optical technologies; (3) photonic, electronic, & sensor devices; (4) smart control & power systems; and (5) bioelectronics & bioinformatics. Our education will transform students into well-trained professional engineers with the skills and vision to enable students to progress further in their career path in this rapidly changing knowledge-based economy. The major will also equip students to pursue postgraduate studies.

### Information Engineering

This major aims to equip students a balanced understanding of the theory and applications of information engineering, which encompasses networking & communications, algorithms and optimization, software technologies, cybersecurity, artificial intelligence, and signal processing. It offers all-round education, which nurtures independent thinking, creativity, and various soft skills. Upon completion of the major, graduates will be sufficiently prepared for further studies or employment in a wide range of economic sectors, mainly technology, but also business, banking, finance and trading in Hong Kong and the Asia-Pacific region.

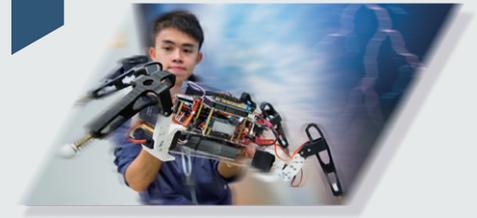
## Department of Materials Science and Engineering

(852) 3442 2985 @ mse@cityu.edu.hk www.cityu.edu.hk/mse

### Materials Science and Engineering

JUPAS Catalogue No.  
**JS1210**

Material is the key for new technology development. Students of the Materials Science and Engineering major acquire knowledge to solve materials-related problems in engineering processes. Graduates with a materials-related degree are adequately prepared to pursue a wide range of careers in engineering. Upon graduation, they will become graduate members of the Hong Kong Institution of Engineers (HKIE) and professional engineers after completing the professional assessment.



## Department of Mechanical Engineering

(852) 3442 2067 @ mnego@cityu.edu.hk www.cityu.edu.hk/mne

### Mechanical Engineering

JUPAS Catalogue No.  
**JS1207**

This major aims to provide a well-structured curriculum that combines education, research and development of innovative technologies which enables students to tackle engineering problems in mechanical-related areas efficiently and independently. It equips students with critical thinking, independent research abilities, qualitative and quantitative analysis capacities and also prepares them for professional employment in areas such as engineering design of materials, dynamical and control analysis, automation engineering and micro & nano technologies.

### Nuclear and Risk Engineering

This major aims to equip students with multi-disciplinary knowledge in nuclear and risk engineering to meet the growing demands in low carbon power generation, healthcare and risk engineering sectors. Graduates can work in a broad spectrum of related professions or industrial sectors, such as nuclear power industry, materials engineering, nuclear medicine related fields, radiation protection, environmental protection, nuclear radiation equipment industry, risk assessment in the financial sector and also disaster management.

## Department of Advanced Design and Systems Engineering

(852) 3442 9321 @ adsego@cityu.edu.hk www.cityu.edu.hk/adse/

### Intelligent Manufacturing Engineering

JUPAS Catalogue No.  
**JS1216\***

This major aims to develop young talents for "Industry 4.0" and "intelligent manufacturing". It equips students with knowledge and skills in engineering science, automation, manufacturing innovations and data analytics. The major emphasizes the integration of intelligent manufacturing systems, industrial engineering, systems modeling and optimization, quality and reliability engineering, automation and robotics, and advanced manufacturing technologies, with particular emphasis on electronics and semiconductor manufacturing. Our graduates will possess the practical skills and knowledge for innovating and managing the operations of modern manufacturing enterprises. These skills and knowledge will also apply to service industries and commercial enterprises to automate and digitalize their various processes, to push for higher and higher efficiency.

(\* The acceptance of applications to this programme for 2022 entry will be confirmed later, pending the approval of the University Grants Committee.)

# Top-up Bachelor's Degree

## Department of Architecture and Civil Engineering

(852) 3442 7609 @acedept@cityu.edu.hk www.ace.cityu.edu.hk

(For Advanced Standing II admission only)

### Architectural Studies

The Programme enables students to develop an attitude of professionalism and the ability to integrate diverse knowledge in advanced technology, design and construction management, and to produce innovative and creative architecture. This HKIA-accredited bachelor degree programme prepares graduates for further study to enter the profession of Architecture. The programme provides articulation for holders of an associate degree or higher diploma to attain a higher qualification in architectural studies. Graduates are highly sought after in the building professions.

Admission Code

**BG20**



# Associate Degree

## Department of Architecture and Civil Engineering

(852) 3442 7609 @acedept@cityu.edu.hk www.ace.cityu.edu.hk

### Architectural Studies

This government-funded associate degree programme provides a broad-based academic foundation in Architectural Studies. It focuses on the major aspects of architectural design such as design studio, communication studies, technical studies, social studies, environmental studies and professional practice. Based on the knowledge modules and skill-sets taught in our curriculum, graduates may continue their study in architectural studies degree programmes in local and overseas universities. They may also join the building industry in supporting roles in the design and documentation of building projects.

JUPAS Catalogue No.

**JS1093**

## Division of Building Science and Technology

(852) 3442 7089 @bsinfo@cityu.edu.hk www.cityu.edu.hk/bst

### Building Services Engineering

This programme is accredited by the Hong Kong Institution of Engineers (HKIE). By equipping students with a solid academic foundation and practical skills, the programme aims to produce quality graduates in building system design, commissioning, control and maintenance. The programme will also provide opportunities for students to develop their technical and academical competence in undertaking duties in consultancy, contracting, research and facility management. Upon completion of this programme, students are able to perform works in building services engineering, or articulate to bachelor's degree programmes in local and overseas universities.

JUPAS Catalogue No.

**JS1091**

### Construction Engineering and Management

This programme is accredited by both the Hong Kong Institution of Engineers (HKIE) and the Hong Kong Institute of Construction Managers (HKICM). It is also recognized by the Chartered Institute of Building (CIOB). The programme aims to provide students with a broad-based academic foundation and practical skills in construction engineering and construction management for entering into an international workplace or articulation to bachelor's degree programmes in local and overseas universities.

The programme provides opportunities for students to develop intellectual abilities and transferable skills to deal with problems creatively, to communicate, interact and work well with people, and to operate across disciplines and professional boundaries.

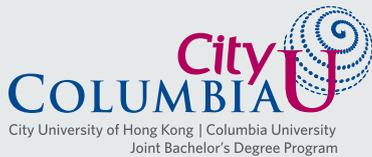
### Surveying

This programme is accredited and recognized by the Hong Kong Institute of Surveyors (HKIS) as a cognate sub-degree programme for admission to their Assessment of Professional Competence (APC) Scheme leading to professional membership under the Building Surveying Division, General Practice Division and Quantity Surveying Division. Upon completion of this programme, students are expected to perform practical surveying works and become an associate member and further, a corporate member of the HKIS.

This programme aims to provide students with an all-round academic foundation and practical skills in surveying for entering into the local construction and property industries. It equips them with multiple intelligences to discover and solve problems innovatively. After completion of this programme, students are encouraged to pursue bachelor's degrees in local and overseas universities.

# Joint Bachelor's Degree Programmes

Joint Bachelor's Degree Programmes provide students with an international undergraduate educational experience. Students will spend two years at CityU and two years at the partner university. On completion of the curriculum requirements of both universities, students will earn two bachelor's degrees - one from CityU and one from the partner university.



## City University of Hong Kong

## Columbia University

### JOINT BACHELOR'S DEGREE PROGRAM

#### Curriculum Design

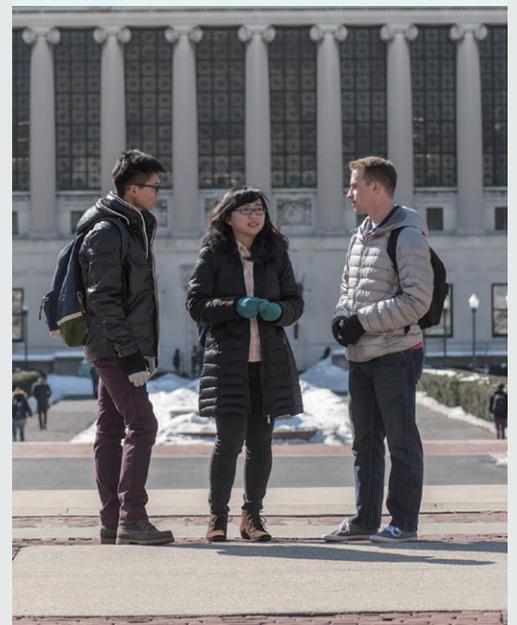


#### Eligibility

- Studying the 4-year degree majoring in Computer Science
- Complete Year 1 with a minimum CGPA of 3.30 or above
- Fulfill one of the following English Language Requirements
  - a minimum TOEFL total score of 100 (ibt); or
  - a minimum IELTS overall band score 7.0
- Students are required to complete a mandatory one-year internship in Hong Kong prior to the commencement of study at Columbia University.

#### Tuition and Fees

Students pay tuition and fees to the University in which they are enrolled. Students can apply for available scholarships.



# CityU and National Taiwan University

#### Curriculum Design



#### Eligibility

- Studying the 4-year degree majoring in Civil Engineering or Materials Science and Engineering
- A minimum CGPA of 3.30 or above
- Fulfill one of the following English Language Requirements
  - a minimum TOEFL total score of 79 (ibt); or
  - a minimum IELTS overall band score 6.5

#### Tuition and Fees

Students pay tuition and fees to their home University. Students can apply for available scholarships.



# College of Engineering

Department of Advanced Design and Systems Engineering (ADSE)

Department of Architecture and Civil Engineering (ACE)

Department of Biomedical Engineering (BME)

Department of Computer Science (CS)

Department of Electrical Engineering (EE)

Department of Materials Science and Engineering (MSE)

Department of Mechanical Engineering (MNE)

Division of Building Science and Technology (BST)

Co-operative Education Centre



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