

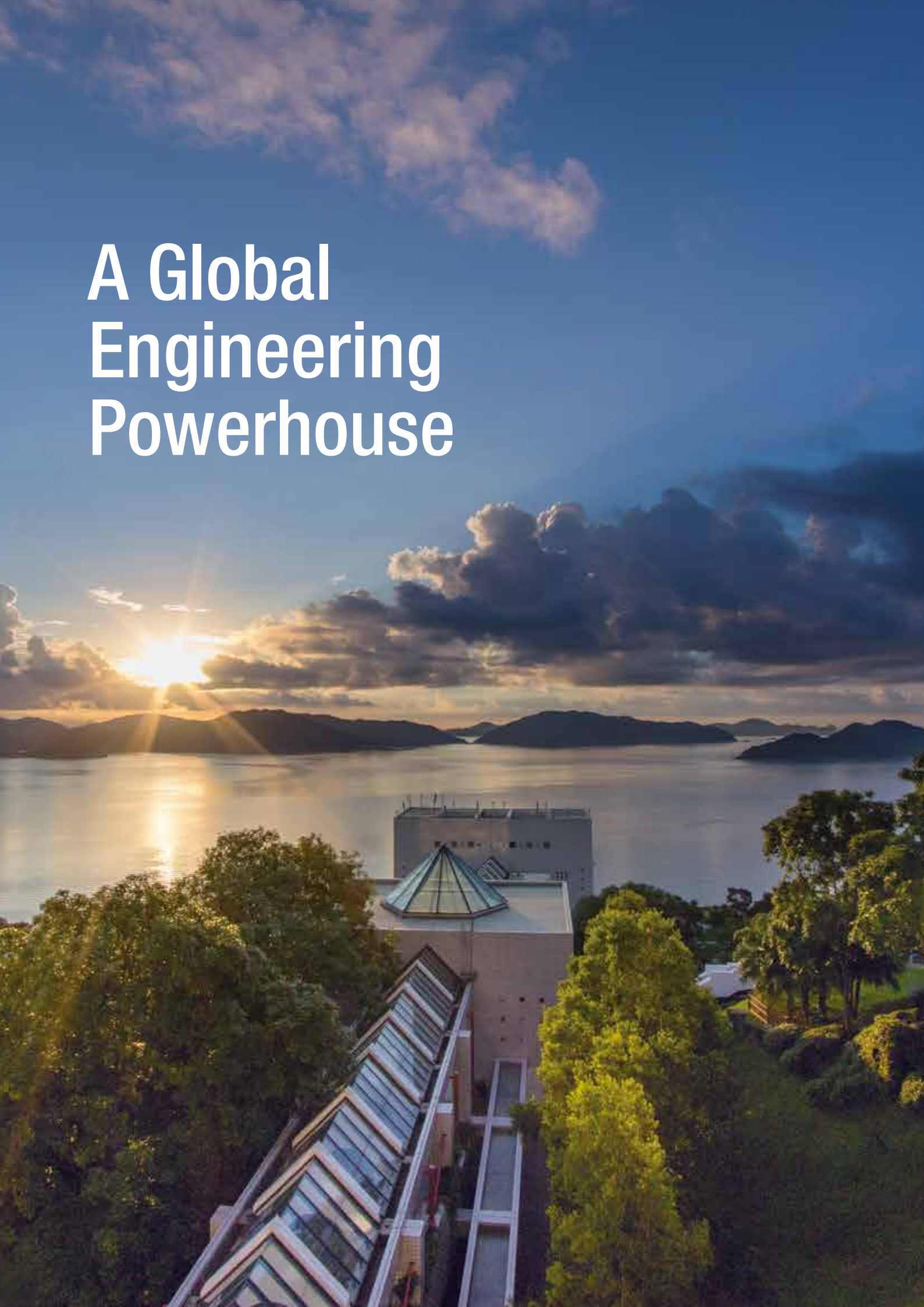
School of Engineering
**Master of Science Program /
Postgraduate Diploma Program**

Asia's Foremost Engineering University

- **Civil Infrastructural Engineering and Management (CIEM)**
- **Environmental Engineering and Management (EVEM)**



A Global Engineering Powerhouse



Master of Science (MSc)/
Postgraduate Diploma (PGD) in

- **Civil Infrastructural Engineering and Management (CIEM)**
- **Environmental Engineering and Management (EVEM)**

Thinking of preparing yourself for senior positions in the engineering industry? Looking for reliable support to empower you to pursue your academic goals?

Welcome to the School of Engineering of The Hong Kong University of Science and Technology (HKUST), a global engineering powerhouse and one of Asia's top academic faculties.

International Success

HKUST is a relatively new institution at only 32 years old, but it has consistently been ranked amongst the world's top research universities over the past decade.

2nd

*Times Higher Education Young University Rankings 2023
– World's Top 600+ Young Universities*

26th

Times Higher Education World University Rankings 2023 – Engineering

30th

Global Employability University Ranking 2022



Why study at HKUST

- **Located in Hong Kong** – A vibrant cultural and business hub in Asia and a gateway to mainland China.
- **English language instruction** – Enable a broad range of students to access the world-class teaching and facilities.
- **A broad range of specializations available** – Ensure students' academic potential and interests are fulfilled.
- **Affordable tuition** – Between one-third and one-half of a comparable MSc in US and the UK.
- **Guaranteed 24-month visa to work in Hong Kong** – Enable non-local students to explore the myriad of opportunities available to them.
- **International faculty** – Majority originate from the world-class universities.

MSc / PGD (CIEM)

Program Objective

The program offers advanced civil engineering and management courses for engineering graduates who wish to strengthen their civil engineering knowledge, as well as prepare themselves for advanced engineering practices with management responsibilities. Students have the freedom to define their own area of concentration by taking courses from a few selected sub-areas, or cover a broad base by taking courses from a variety of sub-areas.

Curriculum

MSc students are required to take a minimum of 30 credits of courses, including 6 credits of MSc Project, while PGD students are required to complete 15 credits. Students are given an option to complete a concentration in a selected sub-area. To opt for a concentration, MSc students are required to complete at least 12 credits in a selected sub-area (9 credits for PGD students).

A Selection of Courses under 7 Sub-areas:

Environmental Engineering

- Biological Waste Treatment and Management
- Design and Management of Physico/Chemical Processes of Environmental Engineering
- Risk Assessment and Contaminated Land Cleanup
- Wastewater Treatment and Reuse

Geotechnical Engineering

- Advanced Foundation Design
- Computer Methods for Slope Engineering
- Engineering Geology and Rock Mechanics
- Slope Engineering and Management
- Unsaturated Soil Mechanics and Engineering

Infrastructural System Engineering and Management

- Building Information Modeling and Smart Construction
- Building Planning and Construction
- Construction Financial Management
- Construction Project Delivery
- Engineering Risk, Reliability and Decision

Material Engineering

- Advanced Concrete Technology

Structural Engineering

- Bridge Engineering
- Building Aerodynamics and Wind-Resistant Design of High-Rise Structures
- Coastal Structures Design
- Computer Aided Design Optimization of Tall Buildings
- Structural Analysis and Design of Tall Buildings

Transportation Engineering

- Traffic Control Fundamentals and Practice
- Travel Demand Analysis

Water Resources Engineering

- Coastal Structures Design

Please refer to program website for the most updated course list:

<https://seng.hkust.edu.hk/msc/ciem>

MSc / PGD (EVEM)

Program Objective

The programs are meant to meet the needs of practicing engineers who may be engaged in the design, commissioning and management of environmental facilities and infrastructure systems. They are designed for those who wish to strengthen their environmental engineering knowledge and management skills, as well as to prepare themselves for advanced engineering practices with management responsibilities. The programs also enable students to take several electives from other related programs.

Curriculum

MSc students are required to take a minimum of 30 credits of courses, including 18 credits of foundation courses, and at least 3 management related courses, while PGD students are required to complete a minimum of 15 credits with at least 9 credits of foundation courses and at least 2 management related courses. The Independent Project is optional.

A Selection of Foundation Courses:

- Air Pollution Meteorology
- Biological Waste Treatment and Management*
- Carbon Management for Sustainable Environment*
- Design and Management of Physico/Chemical Processes of Environmental Engineering*
- Energy, Environment and Sustainable Development*
- Environmental Management and Regulatory Compliance*
- Hazardous Waste Management*
- Industrial Wastewater Treatment
- Risk Assessment and Contaminated Land Cleanup*
- Solid Waste Landfill Engineering Design
- Wastewater Treatment and Reuse
- Water Quality and Assessment

A Selection of Elective Courses:

- Environmental Economics and Management*
- Environmental Health and Management*
- Environmental Impact Assessment*
- Environmental Policy and Management*
- Occupational Safety and Health Issues in Buildings*
- Topics in Environmental Engineering

* Management related courses

Please refer to program website for the most updated course list:

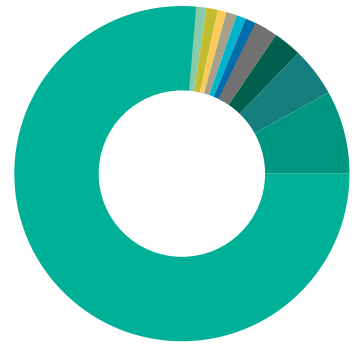
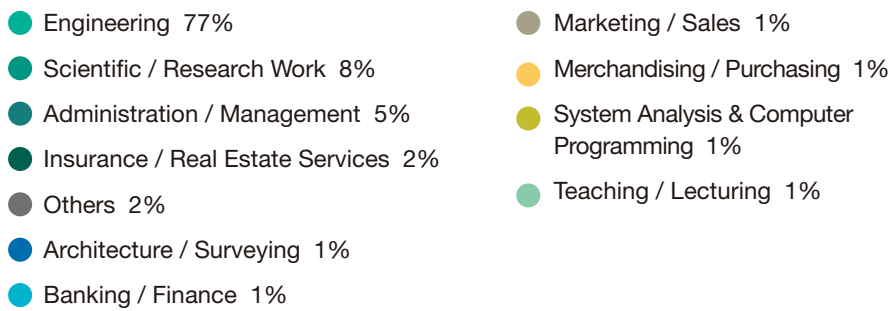
<https://seng.hkust.edu.hk/msc/evem>

Program Duration and Credit Requirement

Term	Full-time	Part-time
	1 year to complete 30 credits	2 - 2.5 years to complete 30 credits (PGD student will take 1 year to complete 15 credits)
Fall	12 - 15 credits	6 - 9 credits
Spring	12 - 15 credits	6 - 9 credits
Summer	3 - 6 credits, if applicable	3 - 6 credits, if applicable

- MSc Project (CIEM 6980) (6 credits) is compulsory for MSc(CIEM) while Independent Project (JEVE 6980) (6 credits) is optional for MSc(EVEM). Both could be started from Fall or Spring term.
- Subject to availability, classes are normally held on weekday evenings or Saturday afternoons. Each course typically meets once a week for approximately three hours.

Postgraduate Career Opportunities



International Student Body

The MSc students are from all corners of the world. Their culture and academic background bring a unique quality to our engineering programs and allow them to learn from peers with remarkably diverse backgrounds.

Countries of Origin:



“The MSc program in EVEM is well designed to cover most of the essential aspects of the environmental field, which consolidates my technical knowledge and also enhances my management skills. Professors and guest speakers are enthusiastic about teaching and always encourage critical thinking. The overall learning experience in the HKUST is excellent and useful for me to pursue a future career in the environmental and sustainability field.”

FUNG Shing Yu (Hong Kong, 2020)
TPg Fellowship awardee

MSc (EVEM)

“The EVEM program provides lot of technical engineering courses on water treatment with comprehensive and practical course materials. I have taken most of them and learnt updated and professional knowledge from those professors. As an engineer working on the water field, it is the most impressive and attractive point to me. Also the waste management provided by Prof Lo and air pollution instructed by Prof Lau are also inspired me on the relationship between environment and human-beings.

This TPg fellowship scheme not only providing monetary subsidy, it also attract me to achieve higher academic performance. I am glad to be one of the awardee of the Fellowship scheme.”

NG Chun Man (Hong Kong, 2020)
TPg Fellowship awardee

“This MSc program offers holistic learning experience to students who aspire to specialize in the field of environmental engineering. Based on your interest and career plan, you have the flexibility to explore up to 10 courses that cover diverse environmental related topics. Being a taught postgraduate program, most courses are designed to equip students with practical knowledge that are applicable to their career. For instance, lecturers often utilize actual case studies as well as their industrial experience to supplement their teaching. In short, through this program, I have obtained the exposure, know-how, and confidence that are crucial for my career transition.”

GOH Jiajie (Malaysia, 2020)



Some of the companies which our graduates are working in / have received job offer from:

Engineering Consultant Firms

- AECOM
- Atkins China Limited
- Black & Veatch Hong Kong Limited
- ERM Group, Inc.
- ERM HK Limited
- J. Roger Preston Limited
- Meinhardt (C&S) Limited
- Meinhardt (HK)
- Mott MacDonald
- Ove Arup & Partners Hong Kong
- Parsons Brinckerhoff Asia
- Ramboll Environ HK Ltd.
- URS Scott Wilson
- WSP | Parsons Brinckerhoff

Contractors

- China Harbour Engineering Company Limited
- China State Construction Engineering Corporation
- Chun Wo Construction & Engineering
- Gammon Construction Limited
- Hip Hing Construction Company Limited
- Hsin Chong Construction Group
- Leighton Contractor (Asia)
- Paul Y. Engineering Group Limited
- Penta-Ocean Construction
- Shui On Building Contractors Limited

Government Departments

- Drainage Services Department
- Water Supplies Department
- Environmental Protection Department
- Food and Environmental Hygiene Department
- Civil Engineering and Development Department

Utilities /Transportation

- China Light Power Hong Kong
- Hong Kong Electric Company
- MTR Corporation Limited

Non-government Organization

- Green Building Council

“As a part time student, it is important to have good planning on the workload in both work and study. There is a direct application of the professional knowledge from the CIEM program into real life experience. The CIEM program is comprehensive that students are required to take courses from at least three different sub-areas, which equip graduates with broader knowledge, especially some specialized engineering topics like tunnel and cavern design. This is a wonderful learning experience to study the CIEM program. Apart from the knowledge gained from classes, it also train me up as a professional Engineer.”



LEUNG Chi Kong
(Hong Kong, 2018)

Application

For admission details and procedures, please check: <https://fytgs.hkust.edu.hk>
Early application is recommended for non-local applicants for visa processing.

Program Fee / Scholarship / Financial Support

Please refer to individual program website <https://seng.hkust.edu.hk/programs> for the most updated program fee, scholarship and financial support.

Various scholarships are available, including:

- Arthur and Louise May Scholarship
- Asian Future Leaders Scholarship Program – For MSc (CIEM)
- Entrance Scholarship
- Excellent Student Scholarship
- Hong Kong Talent Development Scholarship
- Targeted Taught Postgraduate Programmes Fellowships Scheme

Financial support is available to citizens from Brazil, Indonesia, the Republic of Kazakhstan, Norway, Russia, Sweden, and many more.

MSc (CIEM)



“I had many expectations before coming to UST. I like the university, courses, environment and my classmates. After completing the first term, I have to say that this is the most challenging experience I've ever had. It is exciting to know people with different backgrounds and the way they have pursue their career. The CIEM programme should be one of the most comprehensive program since there are courses that cover most areas in civil engineering. I took courses that expanded my vision and knowledge about engineering in an industrial and academic aspect. The course and people have helped me obtain more ideas to develop throughout my career as a civil engineer.”

CORREDOR MORA Diego Mauricio
(Colombia, 2019)

“The MSc(CIEM) program at the HKUST provides high-quality courses in various sub-areas. It attracts students who values flexibility in selecting the courses that they are interested in. The MSc(CIEM) program enriched my technical knowledge and provided me with an opportunity to meet other motivated engineering graduates who are working in the industry. In essence, this program enables students to acquire knowledge through well-structured courses and develop their interest in their desired disciplines.”

TSE Man Tim Martin
(Hong Kong, 2020)

Contact

✉ CIEM: msscien@ust.hk
EVEM: mscevem@ust.hk

📞 (852) 2358 8985

📠 (852) 2719 3027

🌐 <https://seng.hkust.edu.hk/programs>

MSc Program, Professional Program Office
Room 5601, 5/F, Lifts 29-30, School of Engineering
The Hong Kong University of Science and Technology
Clear Water Bay, Kowloon, Hong Kong

