



School of Energy and Environment

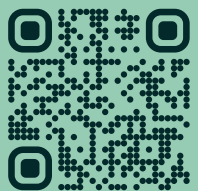
香港城市大學  
City University of Hong Kong

POSTGRADUATE  
PROGRAMMES

# School of Energy & Environment

**First in Hong Kong**

With cutting-edge research and professional education in  
energy and environment



SEE Website

Energy & Environment – The Grand Challenge

# Master of Science in Energy and Environment 理學碩士(能源及環境)

**Mode of study:** 2-year part-time or 1-year full-time

**Maximum period of study:** 5-year part-time or 2.5-year full-time

## Aims of the Programme

- Equip professionals with multiple knowledge and skill sets in energy and environment sectors;
- Combine both hard and soft sciences for balanced career development;
- Provide science- and engineering- driven education for energy and environmental engineers, sustainability managers, governmental officials, etc.

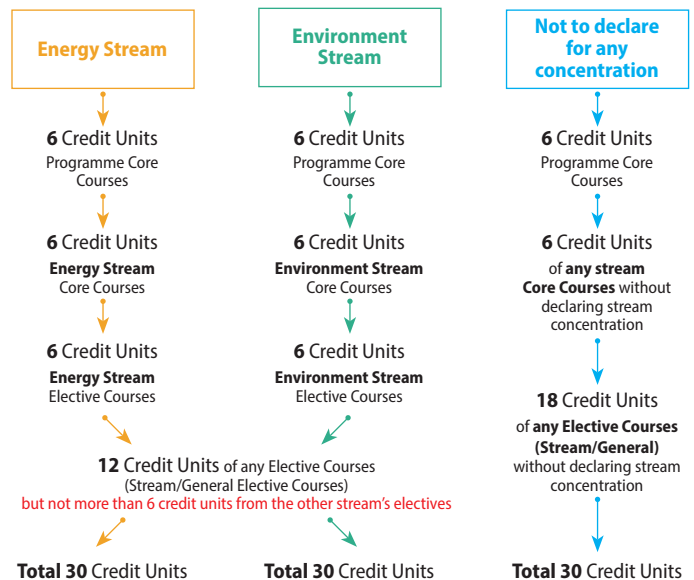
## International Accreditation

- Institution of Gas Engineers and Managers (IGEM)
- Chartered Institution of Water and Environmental Management (CIWEM)
- Graduates who have successfully completed the degree can partially fulfill the academic requirements\* for registration as Chartered Engineer (CEng), UK

## Curriculum Design

- The programme emphasizes a balance of both technical and soft sciences. Students are required to complete 12 credit units of Core Courses (6 credit units of Programme Core Courses and 6 credit units of Stream Core Courses), and 18 credit units of elective courses. (Total 30 credit units)
- Students can declare concentration for one of the streams: Energy Stream (ENE) and Environment Stream (ENV), or not to declare for any concentration.

## Academic Curriculum



Students can declare concentration for one of the streams or not declare for any concentration:

**Energy Stream/ Environment Stream/ Not declare for any concentration**

### Core Courses

#### Programme Core Courses:

- Energy, Environment and Sustainable Development
- Environmental and Energy Policy

#### Stream Core Courses:

##### Energy Stream Core Courses

- Energy Conversion: Theory and Methodology
- Energy Conservation and Audit

##### Environment Stream Core Courses

- Data Analysis in Environmental Applications
- Environmental Pollution: Theories, Measurement and Mitigation

### Elective Courses

#### Energy Stream Elective Courses

- Emerging Energy Technologies
- Electrochemical Energy Storage
- Fuel Processing
- Carbon Capture Use and Storage

#### Environment Stream Elective Courses

- Air Pollution and Atmospheric Chemistry
- Environmental Impact Assessment: Principles and Practice
- Environmental Modelling
- Wastewater Engineering and Water Quality Assessment
- Solid Waste Treatment and Management
- Environmental Engineering Science

#### General Elective Course

- Climate Change: Science, Adaptation and Mitigation
- Energy Generation and Storage Systems
- Carbon Audit and Management
- Advanced Thermosciences for Energy Engineering
- Environmental Assessment
- Dissertation
- Energy and Environmental Law

Remarks: Programme electives will be offered subject to the availability of resources and sufficient enrolment



\* with an accredited BEng/BSc Degree from any of Washington Accord's 23 Signatories



## Master of Philosophy (MPhil) 哲學碩士

Mode of study: 2-year full-time

## Doctor of Philosophy (PhD) 哲學博士

Mode of study: 4-year full-time

**Master of Philosophy (MPhil) and Doctor of Philosophy (PhD)** in all energy- or environment-related subjects in which SEE faculty members have expertise.

Before making an application, candidates are requested to contact one of the faculty members in SEE in the relevant subject discipline to discuss their proposed research topic within that discipline. A five-page research statement is also required to be submitted together with the application for admission.

### Research and Development

Our established research expertise in energy- & environment-related subjects are grouped in research teams to engage in and develop cutting-edge research. Current research areas include:

#### Energy

##### *Conversion & Generation*

Prof. Fatwa F. ABDI  
Prof. Sam H.-Y. HSU  
Prof. Alex KY JEN  
Prof. Patrick LEE  
Prof. Michael K. H. LEUNG  
Prof. Chunhua LIU  
Prof. Sai Kishore RAVI  
Prof. Jin SHANG  
Prof. Patrick SIT  
Prof. Edwin C.Y. TSO  
Prof. Jian WANG  
Prof. Xue WANG  
Prof. Zhenbin WANG  
Prof. Wei WU  
Prof. Charles Chunbao XU  
Prof. Angus Hin-Lap YIP

##### *Efficiency & Storage*

Prof. Guohua CHEN  
Prof. Xi CHEN  
Prof. Sam H.-Y. HSU  
Prof. Michael K. H. LEUNG  
Prof. Chunhua LIU  
Prof. Patrick SIT  
Prof. Edwin C.Y. TSO  
Prof. Jian WANG  
Prof. Xue WANG  
Prof. Zhenbin WANG  
Prof. Wei WU  
Prof. Charles Chunbao XU  
Prof. Angus Hin-Lap YIP  
Prof. Lin ZHANG

#### Environment

##### *Atmospheric & Climate*

Prof. Jung-Eun CHU  
Prof. Jin-Soo KIM  
Prof. Patrick LEE  
Prof. Theodora NAH  
Prof. Yiming QIN  
Prof. Jin SHANG  
Prof. Xuan WANG  
Prof. Charles Chunbao XU  
Prof. Lin ZHANG

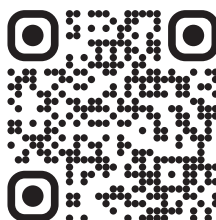
##### *Water & Waste*

Prof. Fatwa F. ABDI  
Prof. Guohua CHEN  
Prof. Shauhrat S. CHOPRA  
Prof. Liang DONG  
Prof. Henry Y. HE  
Prof. Sam H.-Y. HSU  
Prof. Jason C. H. LAM  
Prof. Kenneth LEUNG  
Prof. Carol LIN  
Prof. Theodora NAH  
Prof. Sai Kishore RAVI  
Prof. Wen-Xiong WANG  
Prof. Charles Chunbao XU  
Prof. Zhiguo YUAN AM

#### Sustainability and Policy

Prof. Shauhrat S. CHOPRA  
Prof. Xi CHEN  
Prof. Liang DONG  
Prof. Kenneth LEUNG  
Prof. Wanxin LI  
Prof. Carol LIN  
Prof. Lin ZHANG

SEE Research page





## Message from Graduates

The MSc program has been instrumental in shaping my understanding of emerging technologies in the energy industry and providing valuable insights into the application of sustainability concepts to my professional endeavors. The programme curriculum covered diverse perspectives, including engineering, economics, and policy, I gained a comprehensive understanding of the complex challenges faced by the energy sector. This holistic approach equipped me with the skills to analyze issues from multiple perspectives and develop innovative solutions that align with Hong Kong's energy industry.



**LAU Yu Ching**  
MSc Graduate

The MSc program equips me with the knowledge and skills related to topics like renewable energy systems, energy efficiency, environmental science, policy and regulations, and data analysis. Being able to understand complex technical information and think critically is important for solving complex energy and environmental problems as these challenges often do not have clear-cut answers.



**FUNG Ka Yi**  
MSc Graduate

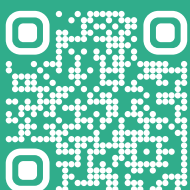
This programme has provided me with the opportunity to work with a multi-disciplinary group of advisers who have real world experience. Their work with government and industry provides me with access to contacts and data I need to study and develop an economically optimal water supply mix.



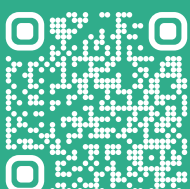
**David William VON EIFF**  
PhD Graduate

## Application

For details, please refer to the website of Chow Yei Ching School of Graduate Studies:



**MSc Energy and Environment**  
<https://www.cityu.edu.hk/pg/programme/p63>



**MPhil/PhD**  
<https://www.cityu.edu.hk/pg/research-degree-programmes>

## Contact Us

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**Tel:** (852) 3442 2414

**Email:** [see.enquiry@cityu.edu.hk](mailto:see.enquiry@cityu.edu.hk)

**Website:** <http://www.cityu.edu.hk/see>