School of Energy & Environment

First in Hong Kong

Energy & Environment — The Grand Challenge

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

SEE Website
Aims of the Programme
This programme aims to equip students with the necessary knowledge and skills in the areas of energy and environment, with special reference to the Asian settings. In particular, the programme caters to the rising demand from the business and industry sectors for managers with contemporary views on energy, environment and sustainability. Besides emphasis on technical sciences, graduates of the programme are equipped with holistic knowledge in the related energy and environmental aspects of economics, policies and laws. Based on such knowledge, the graduates can develop innovative and creative solutions to various energy and environmental problems.

Core Courses
- Data Analysis in Environmental Applications
- Energy Efficiency and Conservation Technologies
- Energy Generation and Storage Systems
- Environmental and Energy Policy
- Environmental Pollution: Theories, Measurement and Mitigation

Electives (depending on the availability of faculty)
- Atmospheric and Climate Science
- Building Performance Assessment
- Carbon Audit and Management
- Climate Change: Science, Adaptation and Mitigation
- Dissertation
- Emerging Energy Technologies
- Energy and Environmental Economics
- Energy and Environmental Law
- Energy, Environment and Sustainable Development
- Environmental Impact Assessment Principles and Practice
- Environmental Modelling
- Experimental Techniques in Energy and Environment
- Wastewater Engineering and Water Quality Assessment

Accreditation
Our programme is accredited by the Institution of Gas Engineers and Managers (IGEM) and 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.

* with an accredited BEng/BSc Degree from any of Washington Accord’s 19 Signatories

Curriculum Design
- attain 30 credit units in one year/ two years, or within the maximum period of study, according to the University’s rules and regulations
- complete five core courses and five elective courses each with 3 credit units, or five core courses and three elective courses with a dissertation which is 6 credit units
Master of Philosophy (M.Phil.)

Mode of study:
2-year full-time

Doctor of Philosophy (Ph.D.)

Mode of study:
4-year full-time

Master of Philosophy (M.Phil.) and Doctor of Philosophy (Ph.D.) 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 two-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:

Atmospheric and climate science
- aerosol and air pollution
- climate diagnostics
- climate impacts on material heritage
- climate modeling
- tropical cyclones
- urban and mesoscale meteorology

Bioscience and its applications
- environmental microbiology and biotechnology
- waste and biomass valorisation

Energy conversion, generation and storage
- battery and energy storage technologies
- fuel cells
- hydrogen technology
- nanotechnology applications in clean energy
- reaction processes in energy-related systems

Energy and built environment
- advanced electric motors
- building performance evaluation
- energy efficiency
- health and comfort in buildings
- indoor air pollution
- low carbon buildings
- smart grid, smart cities

Policy and economics
- climate change and sustainability
- energy security
- energy transition modeling
- water governance

Renewable energy
- hydrogen energy
- marine energy
- photovoltaics
- solar photocatalysis

Sustainable water resources
- desalination
- rainwater harvesting
- urban water and watershed management
Message from Graduate & Student

“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.”

VON EIFF David William
(PhD Graduate)

“The programme offers excellent opportunities to expand my horizons professionally. I enjoy every opportunity to develop my academic skills through regular meetings with my supervisor. The many inspiring seminars and workshops given by academics from a wide range of areas allow us to learn about new science and develop new ideas. With the emphasis on international exposure, we are encouraged to attend international conferences to gain more research insights from experts. The training I am receiving definitely serves as a strong foundation to tackle challenges in my research.”

WANG Huimin
(PhD Student)

Application
For details, please refer to the website of Chow Yeung 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
Address: G5702, 5/F, Yeung Kin Man Academic Building (near Lift 2)
City University of Hong Kong
Tat Chee Avenue, Kowloon,
Hong Kong SAR
Tel: (852) 3442 2414 / 3442 2410
Email: see.enquiry@cityu.edu.hk
Website: http://www.cityu.edu.hk/see

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