Master of Science in
ENVIRONMENTAL MANAGEMENT
Managing environmental issues in multifaceted contexts

Apply for entry in September 2023
The MSc in Environmental Management is an inter-faculty multi-disciplinary coursework programme, with:

- strong focus on management perspectives surrounding a wide variety of environmental and sustainability issues
- course materials focusing on Hong Kong, yet with a strong international and comparative dimension
- courses taught by a group of internationally-recognised experts, including ecologists, engineers, planners, economists, lawyers, environmentalists from HKU and local practitioners in the field

The programme started in 1989, though its contents have evolved over time, its primary objective of providing a broad, integrated overview remains unchanged.

Why this Programme

- Provides a comprehensive training in environmental management, addressing major environmental problems in the social, legal and economic contexts
- Provides a basic introduction to many aspects of environmental science and environmental engineering as well as legal and policy-related concerns

World-class Rankings of HKU

- Quacquarelli Symonds (QS) World University Rankings 2023: #21 World Rankings; #3 Asia Rankings
- Times Higher Education (THE) World University Rankings 2022: #30 World Rankings; #4 Asia Rankings

Eminent Subject Rankings

- QS World University Rankings by Subject 2022: Environmental Sciences #31, Earth & Marine Sciences #51-100, Biological Sciences #62
- QS World University Rankings by Subject 2022: Environmental Sciences #31, Earth & Marine Sciences #51-100, Biological Sciences #62
- Clarivate Analytics’ Essential Science Indicators 2021: 18% of our professoriate staff are the world’s Top 1% scholars

Tuition fees

- Composition fee: HK$170,000 (subject to approval)
- Students are required to pay Caution Money (HK$350, refundable on graduation subject to no claims being made) and Graduation Fee (HK$350)

Programme duration

- Full-time: 1 year
- Part-time: 2 years

Study load

- Credits: 60 credits
- Learning hours: ~1,200-1,800 hours (including 180-270 hours for project and contact hours of 240-360 hours)

Class schedule

- Teaching: mainly on weekday evenings (3-4 classes each week)
- Occasional teaching sessions on Saturdays
- There will be field trips in several courses

Medium of instruction

- English

Assessment

- Written coursework and/or examinations
- A dissertation or project on a topic of the student’s choice

Graduation Fee (HK$350)

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Professional recognition

- This programme is accredited for direct application to the Graduate IEMA membership and BEAM Affiliate qualification

Transferrable skills

- Emphasises on the analysis of environmental and sustainability problems to gain a more adequate understanding of their nature and causes, and the remedial options available to tackle them
- Offers opportunities for the development of specialist interests and skills through optional courses and research dissertation

Career development

- Over 1,000 graduates of the programme are now pursuing successful careers in government departments, environmental consultancies, NGOs and various industries
- Each year Ada and Arthur Hill Prize in Environmental Management and Fred Kan and Co. Prize are awarded to meritorious students. Ada and Arthur Hill Prize in Environmental Management is awarded to the student who has achieved the highest CGPA with grade A in dissertation, while Fred Kan & Co Prize is awarded to the student who has submitted the best dissertation concerning environmental law or environmental policy.

Prizes

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School of Biological Sciences

The School was founded in 2007 following the merger of the Departments of Zoology, Botany, and Ecology & Biodiversity. Our members are committed to undertaking research of the highest standard that will be read, cited and applied by colleagues internationally.

Members of the area of Ecology & Biodiversity place a strong emphasis on studying the effects of environmental change, including:

- Impacts of climate change driven by global warming on terrestrial plants and animals;
- Consequences of global warming and ocean acidification on marine ecosystems;
- Paleoecology of biodiversity associated with historical climate change;
- Pollution impacts and the restoration of ecosystems;
- The international wildlife trade; and
- The global homogenisation of biota through human facilitation of invasive species.

Host

Laila ALI

I am glad that I decided to pursue the MSc in Environmental Management at HKU. The ENVM programme brings together students from diverse backgrounds and explores diverse areas, from economic, technical and legal aspects to nature-based solutions that are important for preserving the environment and mitigating environmental issues. Thanks to the world-class teaching staff and experienced guest lecturers from the sustainability industry, we were able to get the most out of the course. Due to Covid-19, there were some challenges in achieving the goals of our final project which was about challenging Fast Fashion. However, we received help throughout so that we were able to successfully complete the project and learn a lot in the process. As a non-local from Germany, I quickly felt at home and have not only learnt about the effects of environmental change but also about Hong Kong culture. I am confident that I can use the skills I have learnt to make a difference and create a positive impact.
**WHAT YOU WILL LEARN**

**Programme structure**

<table>
<thead>
<tr>
<th>Year 1 (30-33 credits)</th>
<th>Year 2 (27-30 credits)</th>
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</thead>
<tbody>
<tr>
<td><strong>Core Courses</strong></td>
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</tr>
<tr>
<td>ENVM7003 Introduction to ecology (3 credits)</td>
<td>ENVM6004 Dissertation (6 credits) OR ENVM6006 Environmental impact assessment (3 credits)</td>
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<tr>
<td>ENVM7019 Ecological field studies (3 credits)</td>
<td>ENVM8020 Green buildings and energy management (3 credits)</td>
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<tr>
<td>ENVM7018 Environmental economics and analysis (3 credits)</td>
<td>ENVM8021 Conservation and management of marine resources (3 credits)</td>
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<tr>
<td>ENVM7013 Sustainability, society and environmental management (3 credits)</td>
<td>ENVM8022 Directed studies in environmental management (6 credits)</td>
</tr>
<tr>
<td>ENVM7017 Environmental law in Hong Kong (3 credits)</td>
<td>ENVM8017 Conservation and management of freshwater resources (3 credits)</td>
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<tr>
<td>ENVM7007 Environmental law in Hong Kong (3 credits)</td>
<td>ENVM8015 Research methods and report writing in environmental management (3 credits)</td>
</tr>
<tr>
<td>Select at least one field study course from the following list:</td>
<td>ENVM8014 Special topics in environmental management (3 credits)</td>
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<tr>
<td>ENVM7018 Environmental field studies (3 credits)</td>
<td>ENVM8013 Air and noise pollution control and management (3 credits)</td>
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<td>ENVM8012 Environmental health and risk assessment (3 credits)</td>
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<td><strong>Elective Courses</strong></td>
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<tr>
<td>ENVM6003 Conservation biology and management (3 credits)</td>
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<tr>
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<td>ENVM6006 Environmental impact assessment (3 credits)</td>
<td>ENVM8018 Urban planning and environmental management (3 credits)</td>
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<td><strong>Total credits</strong></td>
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<td>9-18 credits</td>
<td>60</td>
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**Core courses**

**ENVM7003 Introduction to ecology**

This course deals with the ecological processes determining the distribution and abundance of organisms, and which in turn govern the structure and function of communities and ecosystems. It focuses on how an understanding of ecology is important for environmental management and also incorporates a practical fieldwork component.

**ENVM7012 Environmental economics and analysis**

This course provides an introduction to economic concepts and principles and applies them to the analysis and management of environmental problems, with an illustration with current environmental and policy issues. Topics include the economic instruments for environmental problems, methods for valuing environmental goods and services, and economic tools for supporting decision-making.

**ENVM7013 Sustainability, society and environmental management**

This course explores and analyses the implementation of sustainability principles and concepts at macro- and micro- levels, covering a wide range of issues from international agreements and campaigns to local projects and practice. It uses a number of implementation tools including social innovation, community engagement and sustainability assessment, and concludes with a series of real-life case investigations on innovative models to achieve sustainability in urban and rural contexts.

**ENVM7014 Environmental quality management**

This course introduces students to the types, sources and effects of environmental pollution and some of the key principles and strategies used in combating pollution and managing environmental quality. Topics include wastewater and air quality management, solid waste management and noise pollution control, with an emphasis on the situation in Hong Kong.

**ENVM7015 Research methods and report writing in environmental management**

This course is intended both as preparation for the dissertation or project courses and as a general introduction to writing reports on environmental issues. Topics include research design, methodology and report writing. Other research skills such as avoiding plagiarism, literature search and review, reporting writing and giving oral presentations are covered.

**ENVM7016 Environmental policy**

This course focuses on key aspects of environmental policy making and the policy-implementation processes, such as how policy agendas emerge and evolve, how environmental discourse shapes policy outputs, and how institutions affect the trajectories and outcomes of environmental policy measures. Making references to local, national and international cases, it also examines the theories and praxis of policy transfer and convergence, and the perennial problematics of policy integration, learning and failure.

**ENVM7017 Environmental law in Hong Kong**

This course focuses on the statutory interpretation of 4 principal Ordinances, namely Water Pollution Control Ordinance, Air Pollution Control Ordinance, Noise Control Ordinance and Wild Animal Protection Ordinance, and subsidiary legislation dealing with pollution and environmental protection in Hong Kong. Students will study the nature of environmental offences, the principles of Common Law, and the interpretation of relevant case law in order to better understand the current sentencing policies towards environmental offenders.
**WHAT YOU WILL LEARN**

ENVM7016 Environmental field studies
This experiential learning course aims to broaden students' understanding by practical experience in biodiversity assessment, environmental management, and conservation biology. It includes hands-on fieldwork and team projects to develop skills in data collection and analysis, and prepare students for advanced courses.

ENVM8006 Environmental impact assessment
Used widely around the world to identify the impacts of development projects, this course covers the ISO 14001 standards and teaches how to conduct environmental impact assessments. Students will develop the ability to identify and mitigate potential environmental impacts.

ENVM8021 Project
This is a group project to be carried out under the supervision of one or more teachers. The topic and content of the project will be agreed individually between students and the supervisor(s). Students may propose their own topics and approach potential supervisors, or they may consider suggestions made by teachers. The project will involve research, data collection, analysis, and report writing.

ENVM8003 Conservation biology and management
Conservation biology is essential in biodiversity conservation. This course covers the basic principles and methods of conservation biology from a management perspective. Students will learn about the integration of the welfare of local communities and the protection of biodiversity.

ENVM8011 Environmental auditing and reporting
This course provides an introduction to environmental management, auditing, and reporting. Students will learn about the design and implementation of environmental management systems, and how to prepare environmental reports. They will also learn how to use computer software to design and implement environmental systems.

ENVM8012 Environmental health and risk assessment
Environmental Risk Assessments (ERAs) are tools to determine the likelihood of releases posing risks to human health or the environment. Current ERAs are required under various regulations in many developed countries to support decision-makers in risk characterisation. Students will learn how to conduct ERAs and make risk-based decisions.

ENVM8013 Air and noise pollution control and management
This advanced course focuses on various technical aspects of air and noise pollution control and management. Students will learn about the legislative framework, and how to conduct assessments of emissions and develop control and management strategies.

ENVM8014 Special topics in environmental management
The course covers hot topics in Hong Kong or overseas that are related to environmental management, and may vary from year to year. Examples of previous topics include urban tree management, slope greening, nature conservation versus development in rural Hong Kong, and sustainable development movements. Students will learn how to assess the feasibility and sustainability of different approaches to environmental management.

ENVM8015 Directed studies in environmental management
This course provides an opportunity for students to study a topic of particular interest. Students will work with a supervisor to develop a research proposal, conduct research, and prepare a final report. The course aims to develop students' research skills and prepare them for future careers.

ENVM8016 Conservation and management of freshwater resources
This course offers an introduction to the problems associated with human use of water and the current management of water resources. Students will learn about the importance of water resources, how to manage water resources, and international cooperation in water management.

ENVM7019 Ecological field studies
This experiential learning course aims to teach students the techniques of ecological fieldwork, including hands-on field surveys and data collection. Students will learn about the integration of the welfare of local communities and the protection of biodiversity.

Elective courses

**Programme Highlights**

Programme Director
Dr. Alice Lam
Class of 2023
Rachel WANG
Class of 2022

The MSc in Environmental Management programme constantly offers students opportunities throughout the curriculum. Enrolling this programme as a fresh Bachelor of Social Science graduate, I was eager to discover my potential in the environmental management field. Trained and guided by top experts and distinguished lecturers, not only did I develop academic skills and leadership ability, but I also caught my interest in textiles waste management. Through the programme supported by our programme, I was grateful to grasp the chance and communicate with the top professionals and stakeholders who are highly engaged in this area. By this, I was also able to develop my huge passion for my career. This is a year filled with sweat and tears, but what this programme has taught me would be the brightest memory for me to treasure forever.
WHAT YOU WILL LEARN

ENVM8017 Conservation and management of marine resources
The marine environment has been an essential source of its fortunes but today suffers from a range of perturbations, from pollution and habitat destruction, to community loss and over-exploitation. This course primarily deals with pressing issues of marine resource conservation and management in Hong Kong. An overview of the current global situation of marine resources will be presented with an emphasis on the local situation. The past and present exploitation of marine resources and human impacts on the marine ecosystem are addressed with a view to identifying problems and providing practical solutions. Real cases are taken from Hong Kong as an example to illustrate the crisis and its management options. The key topics of this course include marine pollution, habitat destruction, biological invasion, biodiversity conservation, fisheries, mariculture and harmful algal bloom.

ENVM8018 Urban planning and environmental management
This course lays down the challenges of achieving sustainability in cities. It highlights the important role of urban planning and its related tools and instruments in managing development pressure, mitigating environmental impacts, conserving ecological sensitive areas and achieving the society’s overall resilience. The course begins with an introduction to the fundamental functions and processes of planning. Illustrated with real-life case studies, the course then critically reviews the effectiveness of a series of planning tools, such as land use zones, conservation trusts, partnership schemes, in resolving climate change and sustainability conflicts in both urban and rural contexts. The course adopts the Problem-based Learning approach where students will take lead and debate on selected current environmental affairs such as planning and development on private land with high conservation value, planning for facilities with environmental nuisances, design and planning for inclusive open space and rural revitalisation for sustainable communities.

ENVM8019 Corporate sustainability
Corporate sustainability focuses on the business sector’s role and contribution to achieving sustainability. In recent years, the scope has extended from contributing to the social welfare of society through philanthropic contributions or avoiding environmental degradation to a new business approach that creates long term value for both the business and society as a whole, by their managing of risks deriving from economic, environmental and social developments, and through the creation of opportunities. The course examines the commonly used tools in corporate sustainability and corporate social responsibility, including reporting, environmental, health & safety, corporate community investment and clean production. It reviews the business relationships with the environment and society expressed in the concepts of sustainable production and consumption. The course also emphasises the importance of learning about current practice in the business sector, and thus guests from corporate sector will be invited to share their experience with students.

ENVM8020 Green buildings and energy management
One of the ways to tackle global climate change is to significantly enhance energy efficiency especially in buildings. This course will introduce the global trends in the green building movement with focuses on current energy management in new and existing buildings in Hong Kong e.g. BEAM Plus. The course will introduce various aspects of energy efficiency including laws and codes; assessment tools; methods to analyse energy uses in different types of buildings and practical energy conservation measures. Starting from the Academic Year 2020-21, this course is accredited by Hong Kong Green Building Council Limited (HKGBC) and BEAM Society Limited (BSL). Under this accreditation scheme, part of the course contents will be the BEAM Affiliate Training which will be delivered in video format. Also, there will be a BEAM Affiliate examination organised by BSL and arranged by HKU. The student upon passing the examination of the course and completing the MSc(EnvMan) programme will be eligible to register as a BEAM Affiliate at HKGBC.

ENVM8022 Environmental management internship (For full-time students only)
This course provides an opportunity for students to undertake a placement in environmental management in universities, NGOs or commercial companies under the supervision of an experienced Environmental Practitioner or Faculty member. The student needs to work for at least 160 hours for the internship employer on either the first, second or summer semester. During the internship, the student needs to conduct a desktop study on a topic related to the internship job duties, which should be endorsed by the course coordinator.

YOUR PROGRAMME EXPERTS

Programme Coordinator
Dr Janet K Y CHAN
BSc, MSc, PhD HK, MHKIQEP, CEMAHK, SFHEA

Other Academic Staff
Dr Margaret J BURNETT
BA McGill; MA Waterloo; PhD HK

Dr Winnie W Y LAW
B Plan, M Plan Auckland, PHD HK, MHKIQEP, CEMAHK, FHEA

Dr Ian Z LI
BA RUC; MPA Columbia; PhD Indiana

Dr Chun-Ho LIU
BEng, PhD HK

Dr Theresa Marie LORENZO
BS Ateneo; MS UNL; PhD Arizona

Dr V’Ihiyaga RAJAN
BSc, MSc, PhD (UNOM)

Dr Jiyan SONG
BEng, MEng Wuhan; PhD Arizona

Ms Amanda WHITFORT
BA (Hons), LLB Monash; LLM London

Professor Gray WILLIAMS
BSc (Hons) Manc; PhD Bristol

More course information at:
https://www.biosch.hku.hk/envm/structure.html
Admissions

Requirements

◊ A Bachelor’s degree with honours in any field
◊ Work experience is useful but not essential
◊ Fulfil the University Entrance Requirements

How to apply

Application deadlines:

Non-local students
Full-time / part-time: **12:00 noon (GMT +8), April 28, 2023**

Local students
Full-time / part-time: **12:00 noon (GMT +8), May 31, 2023**

Online application:
admissions.hku.hk/tpg/

Expected graduation time for normal course of studies

Full-time: Winter (November / December 2024)
Part-time: Winter (November / December 2025)

Further Information

Programme details

Support for students

Enquiries

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Programme Director
Dr Billy C H Hau
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Programme Coordinator
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Faculty of Science

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