



The Chinese University of Hong Kong

# Environmental Science Programme School of Life Sciences 環境科學課程 Faculty of Science



Environmental Science Programme  
The Chinese University of Hong Kong  
Established 1994

## BACKGROUND

Environmental Science is an integrated science using the basic knowledge and skills of applied biochemistry, biology and chemistry to assess and resolve environmental problems. In response to the growing public concerns about the environmental protection and conservation issues, the University established the Environmental Science Programme in 1994.



## PROGRAMME MISSION & HIGHLIGHTS

Our body of lecturing staff comprises professors from the School of Life Sciences and Department of Chemistry, as well as other professionals from related disciplines.

Students should focus either on Environmental Management or Environmental Chemistry.

We foster our students with multi-disciplinary training in ecology, environmental chemistry, instrumentation, pollution control, waste management, biodiversity, conservation biology, toxicology and health, environmental impact assessment, and policy research.

Our Advisory Committee, composed of specialists from the government, industries, and other academic sectors, also provides precious advice on curricular matters, thus improving the relevance of our graduates to the local needs in particular, and that of overseas as well.

## Courses Highlight

- Introduction to Environmental Science
- Chemical Treatment Processes
- Ecology
- Environmental and Biochemical Toxicology
- Environmental Biotechnology
- Environmental Chemistry
- Environmental Health
- Environmental Impact Assessment
- Environmental Instrumentation Techniques
- Environmental Protection and Pollution Control
- Field Study
- Internship
- Senior Experimental Project
- Senior Literature Research



## Selected Job Profiles

**Mr. Chickee Chow**

Consultant, Environmental Resources Management (ERM)

**Dr. Eric Sze**

Assistant Professor, School of Science and technology, Open University of Hong Kong

**Mr. Alfred Tang**

Senior Compliance Engineer, Avery Dennison

**Ms. Carol Tse**

Manager - Sustainability New World Development Company Limited

**Ms. Felice Wong**

Environment Manager, Mass Transit Railway (MTR) Corporation Ltd

**Mr. F F Yeung**

Country Parks Officer, Agriculture Fisheries and Conservation Department, HKSAR Government

**Dr. Patrick C W Yeung**

Project Manager, World Wide Fund-Hong Kong

**Ms. W Y Yiu**

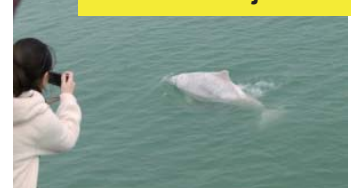
Environmental Protection Officer, Environmental Protection Department, HKSAR Government

## Activities

### Alumni Sharing



### Summer Projects



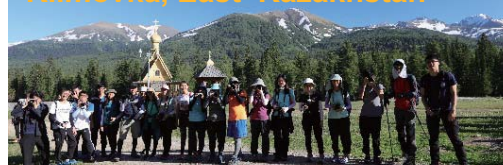
### Guest Lecture



### Internship



### Klimovka, East Kazakhstan



### Field Study



### Danum Valley, Sabah

# Environmental Science Programme

(Applicable to students admitted in 2017-18 and thereafter in a 4 year curriculum)

(JUPAS Catalogue No. JS4601)

## BSc Programme in Environmental Science (Minimum Requirement: 123 units)

### Year One

68 Units

#### Faculty package (9 units):

LSCI1002 Introduction to Biological Sciences (3 units)  
CHEM1280 Introduction to Organic Chemistry and Biomolecules (3 units)  
Any one from MATH1520, PHYS1001, PHYS1002, STAT1012 (all 3 units each)

### Year Two

#### Core (17 units):

BCHE2030 Fundamentals of Biochemistry (3 units)  
BIOL2120 Cell Biology (3 units)  
LSCI2002 Basic Laboratory Techniques in Life Sciences (2 units)  
ENSC2270 Introduction to Environmental Science (3 units)  
BIOL2210/2213 Ecology/Laboratory (2 + 2 units)  
LSCI2003 Scientific Conduct and Ethics (2 units)

### Year Three

#### Core (15 units):

ENSC2515/2517 Environmental Chemistry/Laboratory (5 units)  
ENSC3415/3417 Environmental Instrumentation Techniques/Laboratory (5 units)  
ENSC3520/3580 Environmental and Biochemical Toxicology/Laboratory (5 units)

### Year Four

#### Capstone Courses, at least 4 units from:

ENSC4901/4902/4903 Senior Experimental Project I/II/III (2 units/2 units/2 units) or  
LSCI4000 Senior Literature Research (2 unit); ENSC4906 Internship (2 units), or  
ENSC4907 Field Study (2 units)

#### Major Electives $\geq 23$ unit

#### Group A: Courses Offered by Environmental Science Programme ( $\geq 11$ unit)

ENSC4525 Advanced Environmental Chemistry (3 units)  
ENSC4535 Chemical Treatment Processes (3 units)  
ENSC4250 Environmental Health (3 units)  
ENSC4240/4242 Environmental Impact Assessment/Laboratory (3 + 2 units)  
ENSC4310/4510 Methods in Toxicological Research/Laboratory (3 + 2 units)  
ENSC3230 Principles of Environmental Protection and Pollution Control (3 units) or GRMD3202 Environmental Management (3 units)

#### Group B: Courses Offered by other Programmes

BIOL3012 Biodiversity Laboratory I (2 units)  
BIOL3022 Biodiversity Laboratory II (2 units)  
BIOL3410 General Microbiology (3 units)  
BIOL3560 Biology of Fungi and Non-Vascular Plant (2 units)  
BIOL3570 Biology of Vascular Plants (2 units)  
BIOL3610 Invertebrate Form and Function (2 units)  
BIOL3620 Vertebrate Life (2 units)  
BIOL3710 Marine Biology (3 units)  
BIOL4012 Field and Environmental Biology (2 units)  
BIOL4220 Environmental Biotechnology (3 units)  
BIOL4260 Conservation Biology (3 units)  
BIOL4510 Hong Kong Flora and Vegetation (3 units)  
CHME4280 Chemistry in Biofuel (2 units)  
CHME4400 Advanced Analytical Chemistry (2 units)  
CHME4430 Practices in Testing Laboratory (2 units)  
CHME4440 Food Testing and Environmental Analysis (2 units)  
ENER3020 Energy Utilization and Human Behaviour (2 units)  
ESSC3200 Atmospheric Science (3 units)  
ESSC3300 Introduction to Physical Oceanography (3 units)  
ESSC3600 Understanding Our Biosphere (3 units)  
ESSC4400 Hydrology (3 units)  
GRMD3202 Environmental Management (3 units)  
GRMD3203 Urban Environmental Problems (3 units)  
GRMD3323 Urban and Regional Planning (3 units)  
GRMD3403 Methods for Resource Evaluation and Planning (3 units)  
GRMD4202 Hydrology and Water Resources (3 units)  
GRMD4203 Ecosystem Restoration and Management (3 units)  
GRMD4204 Environmental Planning and Assessment (3 units)  
GRMD4401 Energy Resources (3 units)  
LAWS4310 The Environment and the Laws (3 units)  
PHPC3016 Environment and Health (3 units)  
STAT3210 Statistical Techniques in Life Sciences (3 units)  
URSP3300 Sustainable Urban Transport (3 units)  
URSP4100 Urban Planning Practise and Theory (3 units)

### Other Required Courses

GE (15 units) +  
College GE (6 units)

PE (2 units)

Other Courses ( $\geq 32$  units) e.g. language courses, courses from minor programme or other departments



Recommended Concentrations: Environmental Management or Environmental Chemistry