

+ Class of 2017



# 環境科學課程

Environmental Science Programme  
(established 1994)

School of Life Sciences  
The Chinese University of Hong Kong

生命科學學院



香港中文大學  
The Chinese University of Hong Kong



The Programme is designed for students interested in environmental science and its applications in strategic **planning, policy development, pollution control and waste treatment, biodiversity, conservation, toxicology and environmental health.**

We prepare our graduates with a high level of competence in **scientific understanding of the environmental issues** and a proper handling of the appropriate techniques in addressing these issues.

The graduates are well prepared for employment in relevant **government departments, commercial and industrial enterprises, environmental consultancy, green groups, and further studies in environmental science disciplines.**

## Career Prospects:

Environmental Consultant

Green Groups (NGO)

Government Department  
Officers, e.g. AFCD, EPD,  
etc.

Accreditation, e.g. carbon  
audit, chemical analysis of  
food or ecological  
samples, etc.

Commercial sectors



**Selected Job Profiles:**

**Mr. Chickee Chow** *Consultant,  
Environmental Resources  
Management (ERM)*

**Ms. Anna Chung**  
*Sustainability Development  
Manager, Mass Transit Railways  
Corporation*

**Miss Carol Kwok**  
*Assistant Environmental Health  
and Safety Manager, Swire  
Resources*

**Dr. Eric Sze**  
*Assistant Professor,  
Open University of Hong Kong*

**Mr. Alfred Tang**  
*Senior Compliance Engineer,  
Avery Dennison*

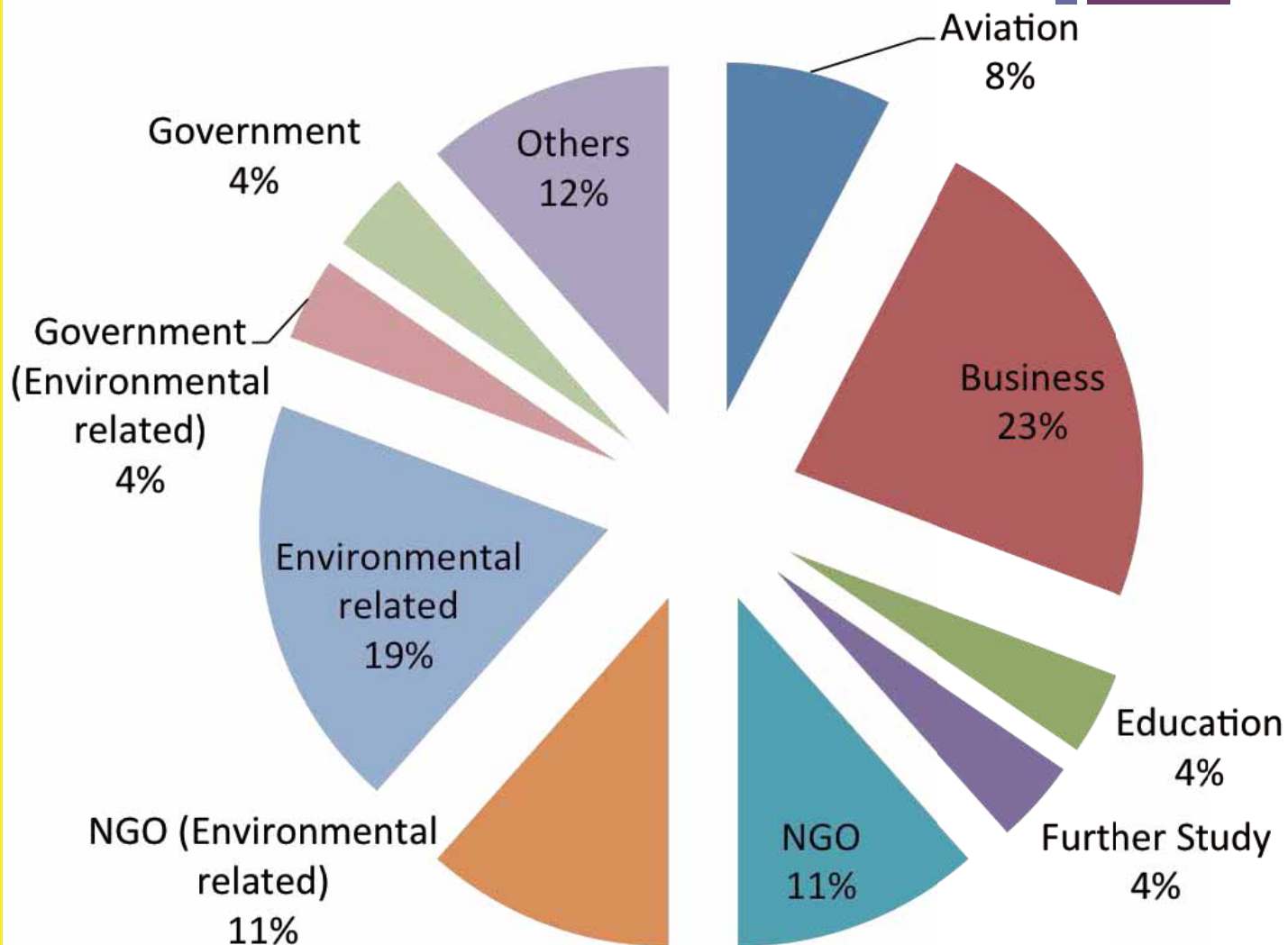
**Ms. Felice Wong**  
*Senior Environmental Engineer,  
Mass Transit Railways  
Corporation*

**Mr. F F Yeung**  
*Country Parks Officer,  
AFCD, HKSAR Government*

**Dr. Patrick C. W Yeung**  
*Project Manager, World Wide  
Fund-Hong Kong*

**Miss WY Yiu**  
*Environmental Protection Officer,  
EPD, HKSAR Government*

**Career Field of 2013 Full-Time First Degree in  
Environmental Science Programme**



# Environmental Science Program Study Scheme and Requirements



**At least 123 units to graduate**

**University Core Courses\*  
(42 units)**

**Major Courses  
(68 units)**

**GE/PE Courses  
(>17 units)**

•Chinese & English Language, General Education, Information Technology & Physical Education

**Year 1  
Faculty Package  
(9 units)**

**Year 2  
Core Courses  
(17 units)**

**Year 3  
Core Courses  
(15 units)**

**Year 4 -Capstone  
Courses  
(4 units)**

**Major Elective  
Courses in  
Year 3 & 4  
(=>23 units)**

**LSCI1002  
CHEM 1280 or CHEM 1070 and  
Any faculty package  
courses from Math,  
Physics, Statistics**

BCHE2030 BIOL2210/2213  
BIOL2120 ENSC2270  
LSCI2002  
LSCI2003

ENSC2515/2517,  
ENSC3520/3820,  
3415/3417, plus  
elective courses

ENSC4906 or ENSC4907  
and  
LSCI4000  
Or  
ENSC4901/4902/4903

Course offered by ENS (Area A)  
And Biology,  
Chemistry, Geography &  
Resources Management,  
Envi Engineering, Public  
Health and  
Earth System Sciences (Area B)

- + Environmental Science Curriculum Major Units: 66  
Students are also encouraged to minor in Geography and Resource Management, Earth System Science, or Public Health.

### YEAR ONE (9 units):

- LSCI 1002 Introduction to Biological Sciences
- CHME 1280 Introduction to Organic Chemistry and Biomolecules
- Any one from MAT 1320, PHY 1001, PHY 1002, STA 1012
- + University GE, PE, and language courses



+ YEAR TWO (10 + 7 units)  
(17 units)

Term 1

BCHE2030 Fundamentals of Biochemistry (3 U)

BIOL2120 Cell Biology (3 U)

LSCI2002 Basic Laboratory Techniques in Life Sciences (2 U)

LSCI 2003 Scientific Conduct and Ethics (2 U)

ENSC2270 Introduction to Environmental Sci. (3U)

BIOL2210 Ecology (3U)

BIOL2213 Ecology Lab (1U)

Term 2



# + YEAR THREE

(5 + 10 units)

Term 1

ENSC 2515 Environmental  
Chemistry (3 U)

ENSC 2517 Environmental  
Chemistry Lab (2 U)

ENSC 3520 Environmental &  
Biochemical Toxicology (3 U)

ENSC 3820 Environmental &  
Biochemical Toxicology Lab (2 U)

ENSC 3415 Chemical Instrumentation  
Techniques (3 U)

ENSC 3417 Chemical Instrumentation  
Technique Lab (2 U)

Term 2

8





# + YEAR FOUR

**Total major core: 45 units  
+ 23 units electives = 68 units**

9

**CAPSTONE COURSES = 4 to 6 units**

**ENSC4901/4902/4903 Senior  
Experimental Projects  
(I/II/III; 2+2+2 U = 6 U) or**

**LSCI4000 Senior Literature  
Research (3 U)(Term 1 or  
Term 2)**

**ENSC4906 Internship (2U) or**

**ENSC4907 Field Study (2U)**



# Major Elective Courses (> 23 units)

## At least 11 units from Group A:

- ENSC3230 Principles of Environmental Protection & Pollution Control (3 units)(or GRMD3230)
- ENSC4240/4242 Environmental Impact Assessment/Lab (3 + 2 units)
- ENSC4250/4252 Environmental Health (3 units)
- ENSC4310/4510 Methods in Toxicological Research/Lab (3 + 2 units)
- ENSC4525 Advanced Environmental Chemistry (3 units)
- ENSC4535 Chemical Treatment Processes (3 units)



## Group B: Courses Offered by other Programmes

- BIOL3012/3022 Biodiversity Laboratory I (2 units)/ 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 & 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)

# Bloom's Taxonomy Table

The knowledge dimension	The cognitive process dimension					Assessments Create (Affirmative and Summative with Criteria Referencing):  <b>Assignment,</b> Term Paper, Poster and Oral Presentations, Group Project, <b>Final Examination.</b>
	Remember	Understand	Apply	Analyse	Evaluate	
Factual knowledge						
Conceptual knowledge						
Procedural knowledge						
Meta-cognitive knowledge						

<http://www.cuhk.edu.hk/sci/OBA/information/information01.html>

# Suggested Concentrations

## Concentration 1: Environmental Management



## Concentration 2: Environmental Chemistry



# Field Trips and Field Studies

Field Study to Sabah  
studying pitcher plants



Mount Kinabalu  
(4095.2 M)

iSeahorse –  
The new insight of environmental  
conservation



Danum Valley, Sabah



The Chinese University of Hong  
Kong  
ENSC4907 Field Study  
Tsoi Tak Chi (1155057936)

Field Study to Philippines for  
seahorse survey (ENSC 4907)



**North East  
New Territories  
(NENT) Landfill  
Gas Utilisation**



**Sha Lo Tung Field Study  
(EIA Lab)**



**Site visit at a metal finishing plant**



**Tai O Field Trip  
(ENSC2270)**

# INTERNSHIP



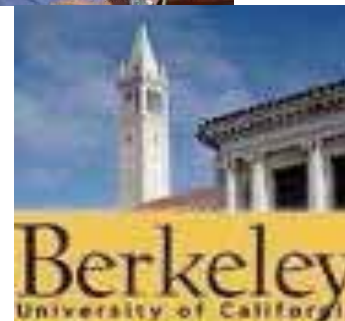
綠領行動  
Greeners Action



香港特別行政區政府  
漁農自然護理署



生態教育及資源中心  
Eco-Education & Resources Centre



# Scholarships



## Chevening Aberdeen Scott Scholarship

[http://www2.cuhk.edu.hk/gs/s/download/pdf/Scholarship/Scholarship\\_20141003\\_1.pdf](http://www2.cuhk.edu.hk/gs/s/download/pdf/Scholarship/Scholarship_20141003_1.pdf)

## French Scholarships



<http://www.iso.cuhk.edu.hk/english/publications/newsletter/article.aspx?articleid=61846>

# College Scholarships and Activity Funds



# Exchange Programs

Over 20 students joined exchange programs to the following universities in the last decade.

**Australia:** ANU, NSW **Canada:**

UBC, U of T, Waterloo

**Denmark:** Copenhagen

**Finland:** Helsinki

**Germany:** Hannover

**Japan:** Christian U, Kyoto Sangyo

**Mainland:** Peking

**Norway:** Bergen

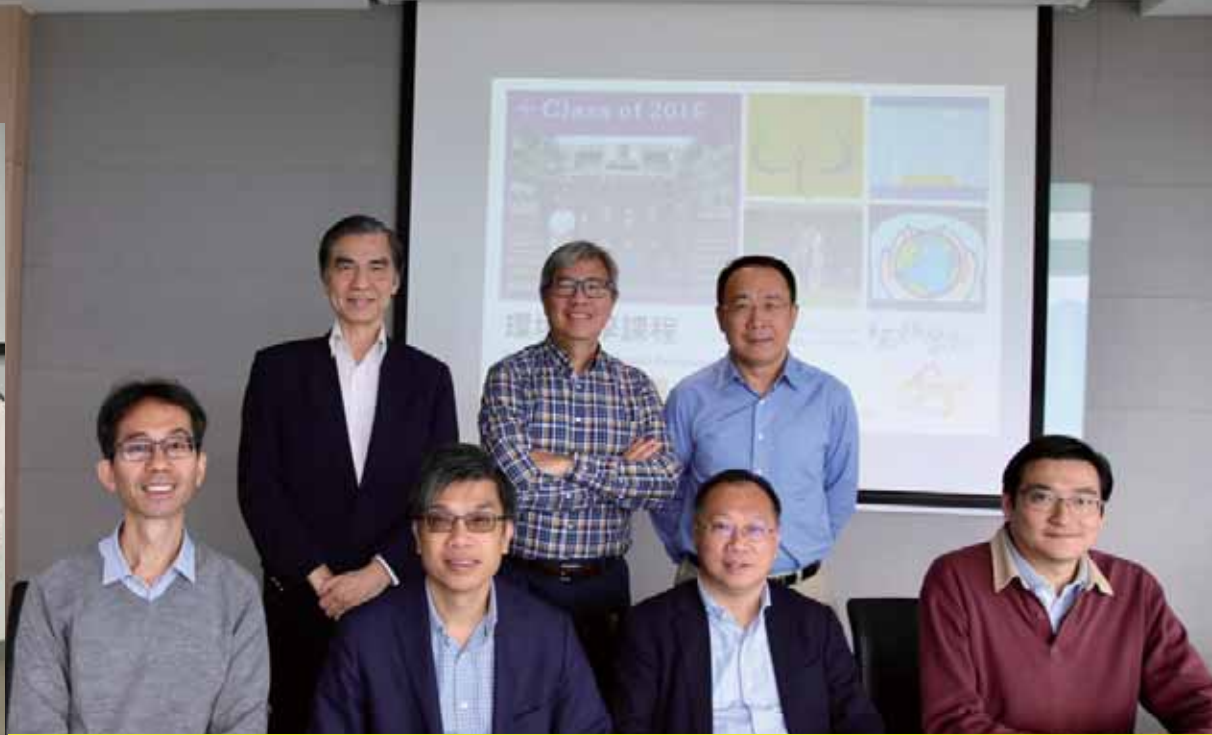
**Sweden:** Royal Ins. Of Technology

**Switzerland:** Lausanne

**USA:** Penn State, Ohio State,  
Claremont McKenna



# Alumni Sharing



ENS Program Advisory Committee Meeting 2016

***Career  
Talks  
e.g. from  
CIWEM***





*Environmental Integrity & Excellence*

# HKIQEP

# 香港環專會

## Our Institutional Partners

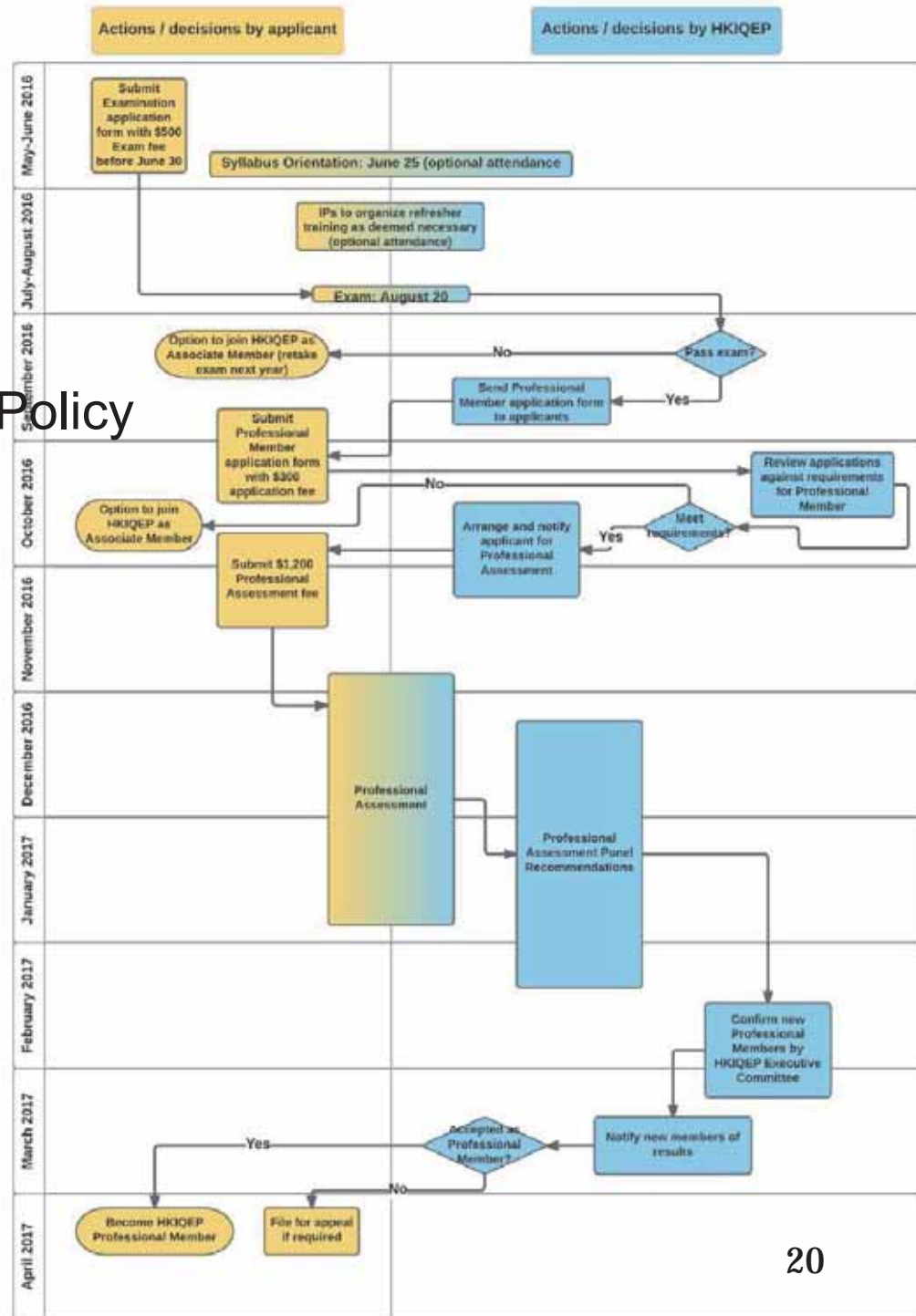
We collaborate with environmental professional institutions which share the same vision and goal of raising the standard of the environmental profession in Hong Kong. We work together with them to shape the qualification process for environmental professionals, as well as to mutually support each other in our missions. Our Institutional Partners include:

- Chartered Institution of Water and Environmental Management (CIWEM HK);
- Environmental Management Association of Hong Kong (EMAHK);
- Hong Kong Institute of Acoustics (HKIOA);
- Hong Kong Institute of Environmental Impact Assessment (HKIEIA); and
- Hong Kong Institute of Environmental Protection Officers (HKIEPO).

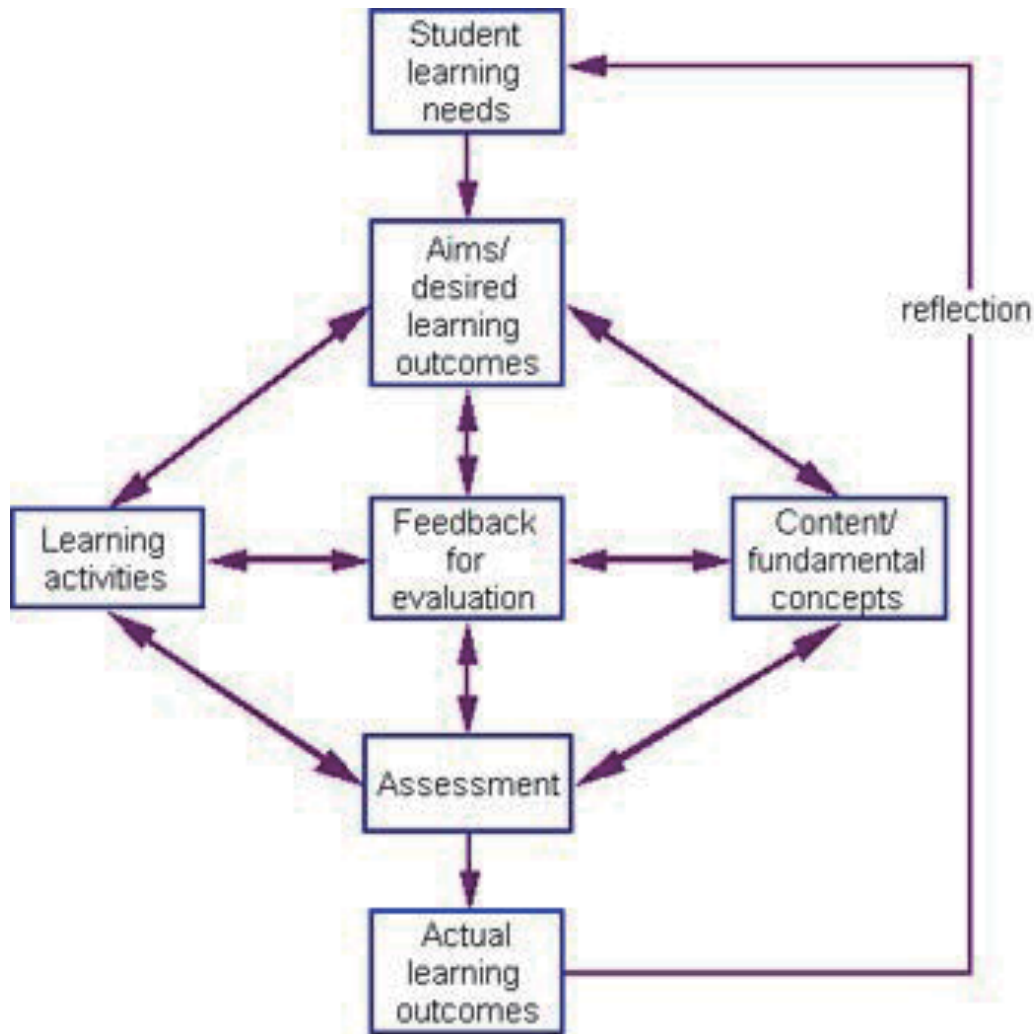
[http://hkiqep.org/membership/qualification-process-2016\\_17/](http://hkiqep.org/membership/qualification-process-2016_17/)

- 1.Environmental Science, Management & Policy
- 2.Air
- 3.Noise
- 4.Water
- 5.Waste
- 6.EIA (&HA)

<http://hkiqep.org/wp-content/uploads/2016/04/HKIQEP-Syllabus-Suggested-Materials-21March2016.pdf>



# OBA Practice in CUHK



**Feedbacks:**

**Curriculum Forum,**

**Course Teaching  
Evaluation.**

**Staff-Student  
Consultation Committee**

**Program Committee  
Meeting**

# Staff / Contacts

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**MMW: Mong Man Wai Bldg MSL: LFS Marine Lab SC: Science Center**

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