

Program Fee

The program fee for each student, for two years of study, is HK\$84,000. The program fee is subject to revision by HKUST. The student is required to pay half of the program fee upon the start of the program, and the second half at the start of the 2nd year. A student will be required to pay an additional registration fee, on a monthly pro-rata basis, if he/she fails to complete the program within 24 months.

Subject to the availability of research funding and satisfactory performance, students may receive a stipend or other financial supports during the program.

Faculty and Core Course Instructors

Prof. Alexis Kai-Hon Lau (**Program Director**)
PhD, Princeton University

Prof. Kwing-Lam Chan
Ph.D. Princeton University

Prof. Christopher YH Chao
PhD, University of California Berkeley

Prof. Jimmy Chi-Hung Fung
PhD, University of Cambridge

Prof. See Chun Kot
PhD, Cornell University

Prof. Jianzhen Yu
PhD., University of North Carolina-Chapel Hill

HKUST Fok Ying Tung Graduate School

The MPhil-ATM program is offered by the HKUST Fok Ying Tung Graduate School. The School was established in 2006 as the fifth school of the University. The mission of the School is to become a prominent research and education base for the Pearl River Delta region, pushing economic growth and technological advancements, expanding outreach to industry and fostering knowledge exchange between Hong Kong and the Mainland. The School and its research centers will have a Mainland base in the Nansha district of Guangzhou City - a new campus with facilities that will set new standards both academically and architecturally to meet contemporary international based researcher requirements. The Graduate School will be an integral part of the University's strategy for fulfilling its social and economic development responsibilities, and for realizing its vision.

Application Details

For application deadline and details, please refer to the program web page at:

<http://fyt.hkust.edu.cn/Academic-Programs>

For inquiry, please contact:

Tel: (852) 2358 6939

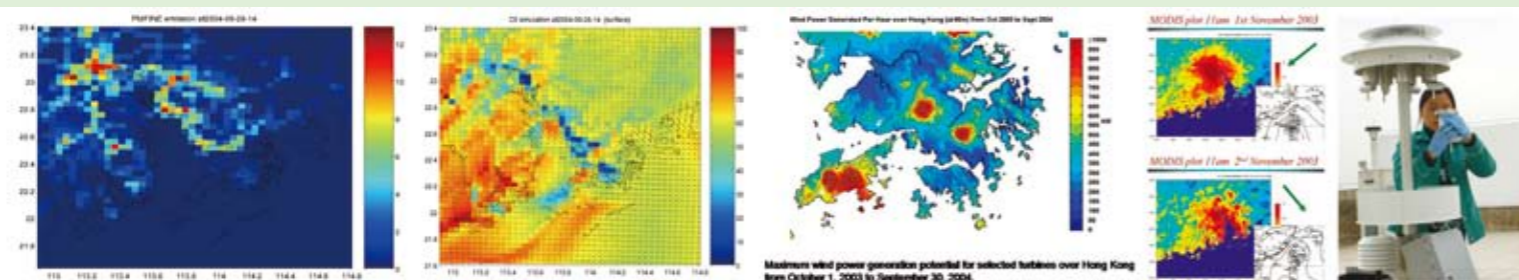
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The Hong Kong University of Science and Technology
Clear Water Bay, Kowloon, Hong Kong

MPhil in Atmospheric Environmental Modeling 哲学硕士（大气环境模型学）





Program Objectives

The Master of Philosophy in **Atmospheric Environmental Modeling (MPhil-ATM; 哲学硕士(大气环境模型学))** program is a research-based postgraduate degree program offered under the HKUST Fok Ying Tung Graduate School of the Hong Kong University of Science and Technology. Modeled after and requiring the same disciplinary requirements as the MPhil in Atmospheric Environmental Science in the HKUST School of Science's Atmospheric, Marine and Coastal Environment (AMCE) Program, MPhil-ATM offers a specific focus on atmospheric environmental modeling and an emphasis on PRD relevance. In addition, the MPhil-ATM program incorporates a HKUST Fok Ying Tung Graduate School common course requirement that is designed to broaden students' perspective and enable them to become effective contributors of PRD and on the global stage. Successful students may continue their postgraduate studies at HKUST and overseas, or undertake employments in PRD to help address the environmental issues faced by the rapidly developing country.

Program Schedule and Structure

Commencing in February and September every year, the MPhil-AME program is expected to require 2 years of study under the full-time mode.

After their enrollment in the program, students will first be stationed at HKUST's Clearwater

Bay campus for one to two semesters to complete their disciplinary coursework requirements. Afterwards, students will be stationed in HKUST's Nansha campus to conduct research work, and to complete the HKUST Fok Ying Tung Graduate School extra-disciplinary common course requirement and the research seminar requirement. Students will complete the program by conducting their thesis defenses in the Clearwater Bay campus in Hong Kong.

Medium of Instruction

All in-class lectures and materials will be in English.

Admission Requirement

Applicants should have a bachelor's degree in engineering, science, or a related field with satisfactory performance. Application should include the transcript from the applicant's undergraduate institution and letters of recommendation from at least two former instructors. Scores in the Graduate Records Examination (GRE) should be submitted if available. Students should demonstrate sufficient command of English and include the test report of TOEFL or other equivalent tests if available.

To be admitted into the program, a student must be recommended by at least one HKUST faculty member committed to the supervision of the student's research work.

Curriculum and Requirements

- **Disciplinary Coursework**

Students are required to complete 9 credits (3 courses) in postgraduate coursework in the discipline of atmospheric environmental studies. These 9 credits shall include 6 credits from

MATH 560	Weather, Climate and Pollution [3-0-0:3]
CHEM 541	Atmospheric Chemistry [3-0-0:3]

Plus 3 credits from courses selected below:

AMCE 602	Special Topics in Atmospheric Environmental Science [1-6 credit(s)]
AMCE 604	Atmosphere and Ocean Dynamics [3-0-0:3]
AMCE 605	Introduction to Oceanography [3-0-0:3]
AMCE 607	Environmental Impact Assessment [3-1-0:4]
AMCE 608	Dynamics of Marine Ecosystems [3-0-0:3]
ESCE 531	Measurement of Air Pollutants [3-0-0:3]
ISMT 553	Multivariate Data Analysis [3-0-0:3]
MATH 535	Computational Fluid Dynamics for Inviscid Flows [3-0-0:3]
MATH 546	Time Series Analysis [3-0-0:3]
MATH 551	Mathematical Methods in Science and Engineering I [3-0-0:3]
MATH 685O	Topics in Applied Mathematics: Numerical Ocean Circulation Modeling [2-4 credits]
MECH 521	Fluid Dynamics [3-0-0:3]
MECH 526	Air Pollution Meteorology [3-0-0:3]
AMCE 520	Environmental Chemistry and Microbiology [3-0-0:3]
AMCE 603	Special Topics in Marine Environmental Science [1-6 credit(s)]
CHEM 544	Bioanalytical Chemistry [3-0-0:3]

A graduation grade average (GGA) of B or above is required for graduation. If a student fails to meet the graduation grade average requirement, he/she is required to repeat or substitute the course(s) at a per credit fee.

- **Extra-disciplinary Common Course**

Students are also required to complete 3 credits of coursework in extra-disciplinary common course(s) to be offered by the HKUST Fok Ying Tung Graduate School in the Nansha campus. These common courses are intended to equip the students with perspectives beyond their scientific and technical fields of study, and to enhance their effectiveness as contributors in PRD and in the global workplace. Example common courses include:

- Introduction to Hong Kong Society
- History of South China
- Globalization
- Sustainable Development
- Technology Management
- Management of Technological Innovations
- National Innovation Systems
- Career Mapping in the Hi-Tech Era
- Technical Management
- The Business of R&D
- Management Science
- Management of Organizations
- Corporate Finance and Accounting

- **Thesis**

Students are required to conduct research, to submit a thesis, and to defend it in front of an MPhil thesis examination committee at a public oral defense. The defense will take place at HKUST's Clearwater Bay campus. An MPhil thesis committee, to be appointed by the Dean of the HKUST Fok Ying Tung Graduate School in consultation with the head of the department that the principle thesis supervisor belongs to, shall consist of at least three (3) faculty members with at least two who are not the student's thesis supervisors.

- **Research Seminar and English Proficiency**

When stationed in Clearwater Bay, students are required to register in AMCE 601, Postgraduate Seminar, when it is offered. When stationed in Nansha, students are required to register an attendance rate of at least 50% in one Nansha Campus Seminar Series. Each student will be required to make presentation at least once in a seminar in the Nansha Campus Seminar Series. All students in FYTGS's MPhil programs are required to pass LANG 501 - Postgraduate English for Academic Purposes (1 credit). Students are expected to attend and pass LANG 501 while they are stationed in the Clearwater Bay campus.