

## Programs in Atmospheric Environmental Science/Marine Environmental Science

### ***Curriculum for Master of Philosophy (MPhil) Program in Atmospheric Environmental Science/Marine Environmental Science***

The Master of Philosophy (MPhil) program aims to train postgraduate students to conduct independent research in Atmospheric Environmental Science or Marine Environmental Science. Students must fulfill the following programs requirements:

- a) Completion of 6 credits by taking two core courses:  
ENVR 6050 Introductory Oceanography  
MATH 5360 Weather, Climate and Pollution
- b) Completion of 3 credits of elective course chosen from specific elective course list of the discipline concerned.
- c) Registration of ENVS 6011 Postgraduate Seminar whenever it is offered; Credits earned from ENVS 6011 cannot be counted toward the credit requirements;
- d) Taking a maximum of 4 credits outside of the curriculum, subject to approval of the supervisor and PG Coordinator;
- e) ENVS 6990 MPhil Thesis Research; and
- f) Presentation and oral defense of the MPhil thesis.

### ***Curriculum for Doctor of Philosophy (PhD) Program in Atmospheric Environmental Science/Marine Environmental Science***

The Doctor of Philosophy (PhD) program aims to train students in original research in Atmospheric Environmental Science or Marine Environmental Science, and to cultivate independent and innovative thinking that is essential for a successful research career in environmental science.

Specific PhD program requirements are:

- a) Students admitted with a first degree only are required to complete at least 12 credits of coursework, including
  - i) 6 credits from two core courses ENVR 6050 and MATH 5360.
  - ii) The remaining 6 credits are selected from the Atmospheric Environmental Science elective course list or the Marine Environmental Science elective course list.
    - Atmospheric Environmental Science students are required to take at least 3 credits of coursework from the Atmospheric Environmental Science elective course list.

- Marine Environmental Science students are required to take at least 3 credits of coursework from the Marine Environmental Science elective course list.
- b) Students admitted to the program with a relevant master's degree are required to complete at least 7 credits of coursework. They may be granted credit transfer of up to 4 credits by the PG Coordinator, based on their background in related subject areas;
- c) Registration of ENVS 6011 Postgraduate Seminar whenever it is offered; Credits earned from ENVS 6011 cannot be counted toward the credit requirements;
- d) Students must submit a thesis proposal to the Qualifying Examination Committee who will examine the student's general background knowledge and knowledge related to the topic of the research proposal. The student must pass the qualifying examination;
- e) ENVS 7990 Doctoral Thesis Research; and
- f) Presentation and oral defense of the PhD thesis.

Elective Course List for Atmospheric Environmental Science:

CHEM	5410	Atmospheric Chemistry
ENVR	6020	Special Topics in Atmospheric Environmental Science
ENVR	6080	Dynamics of Marine Ecosystems
EVSM	6070	Environmental Impact Assessment
MATH	5350	Computational Fluid Dynamics for Inviscid Flows
MATH	5460*	Time Series Analysis
MATH	5351	Mathematical Methods in Science and Engineering I
MECH	5210	Fluid Dynamics
MECH	5260	Air Pollution Meteorology

\* This course may be replaced by ISOM 5530 Multivariate Data Analysis.

Elective Course List for Marine Environmental Science:

LIFS	5300	Conservation Biology
LIFS	5320	Ecotoxicology
LIFS	6210	Special Topics in Marine Biology
CHEM	5440	Bioanalytical Chemistry
ENVR	5210	Environmental Microbiology
ENVR	6030	Special Topics in Marine Environmental Science
ENVR	6080	Dynamics of Marine Ecosystems
EVSM	5220	Advanced Environmental Chemistry
EVSM	6070	Environmental Impact Assessment