REGULATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN ENVIRONMENTAL MANAGEMENT (MSc[EnvMan])

(See also General Regulations)

Any publication based on work approved for a higher degree should contain a reference to the effect that the work was submitted to the University of Hong Kong for the award of the degree.

Admission requirements

Sc40 To be eligible for admission to the courses leading to the degree of Master of Science in Environmental Management a candidate

(a) shall comply with the General Regulations;

(b) shall hold:

(i) a Bachelor's degree with honours of this University; or

(ii) another qualification of equivalent standard from this University or from another University or comparable institution accepted for this purpose; and

(c) shall satisfy the examiners in a qualifying examination if required.

Sc40A A candidate who does not hold a Bachelor's degree with honours of this University or another qualification of equivalent standard may in exceptional circumstances be permitted to register if he/she demonstrates adequate preparation for studies at this level and satisfies the examiners in a qualifying examination.

Qualifying examination

Sc41

(a) A qualifying examination may be set to test the candidate's formal academic ability or his/her ability to follow the courses of study prescribed. It shall consist of one or more written papers or their equivalent.

(b) A candidate who is required to satisfy the examiners in a qualifying examination shall not be permitted to register until he/she has satisfied the examiners in the examination.

Award of degree

Sc42 To be eligible for the award of the degree of Master of Science in Environmental Management a candidate

(a) shall comply with the General Regulations; and

(b) shall complete the curriculum and satisfy the examiners in accordance with the regulations set out below.

Length of curriculum

Sc43 The curriculum shall extend over not less than two academic years of part-time study, with a minimum of 300 hours of prescribed work and shall include a written examination.

Completion of curriculum

Sc44 To complete the curriculum, a candidate

(a) shall follow courses of instruction and complete all prescribed written work, practical work and field work;

(b) shall complete and present a satisfactory dissertation on an approved subject; and

(c) shall satisfy the examiners in all courses prescribed in the syllabuses.

Dissertation

Sc45 The title of the dissertation shall be submitted for approval by June 1 of the first academic year and the dissertation shall be submitted by a date specified by the Board of Studies; the candidate shall submit a statement that the dissertation represents their own work undertaken after registration as a candidate for the degree. The candidate shall make a formal presentation on the subject of his/her dissertation as required by the programme organizers, during the final semester of the teaching programme; and the dissertation and presentation shall count as the equivalent of two full courses.

Examinations

Sc46 The examination in any course shall consist of elements prescribed by the course teachers, and will normally comprise either written coursework alone, or coursework combined with formal examination; in either case participation in field work or practical work may form part of the examination.

Sc47 A candidate who fails to satisfy the examiners at the first attempt in any course examined at the end of a semester may be permitted to present himself/herself for re-examination in the failed course(s) at supplementary examination(s) to be held in May (for failures in Semester I) and August (for failures in Semester II).

Sc47A A candidate who presents himself/herself for re-examination in any subject shall not be eligible for the award of more than a pass mark in that subject.

Sc48 A candidate who has failed to satisfy the examiners in any course examined during a year of study (but excluding the dissertation in the second year of study) or in any course at a repeated attempt, may be (a) required to repeat a year of the curriculum and present himself/herself for examination in the prescribed courses for the repeated year; or (b) recommended for discontinuation of studies.

Sc49 A candidate who has failed to satisfy the examiners in the dissertation :

(a) may be required to make minor corrections and amendments as specified by the Board of Examiners, and to submit the corrected/amended dissertation by a specified date, without the necessity for a fresh examination; or

(b) may be required to submit for examination a new or revised dissertation by a date to be specified by the Board of Examiners. Such a candidate shall not be eligible for more than a pass mark for the dissertation. A candidate who failed to satisfy the examiners in the revised or new dissertation may be recommended for discontinuation of studies. Similarly a candidate who fails to submit the revised or new dissertation may be recommended for discontinuation of studies.

Sc50 A candidate who is unable because of his/her illness to be present for one or more papers in any written examination may apply for permission to present himself/herself at a supplementary examination to be held before the beginning of the following academic year. Any such application shall be made on the form prescribed within two weeks of the first day of the candidate's absence from the examination. An examination in these circumstances shall not be subject to regulation Sc47A above.

Examination results

Sc51 At the conclusion of the examination, a pass list shall be published. A candidate who has shown exceptional merit at the whole examination may be awarded a mark of distinction, which shall be recorded in the candidate's degree diploma.

SYLLABUSES FOR THE DEGREE OF MASTER OF SCIENCE IN ENVIRONMENTAL MANAGEMENT

A candidate shall follow and be examined in six courses, or their equivalent, in each academic year of study.

A. COURSE STRUCTURE

The list of courses, and their contents set out thereafter, may be changed from time to time.

FIRST YEAR

All courses are compulsory:

ENVM7002 Environmental economics
ENVM7003 Introduction to ecology
ENVM7004 Planning, environment and sustainability
ENVM7009 Environmental pollution and its control in Hong Kong
ENVM7010 Case studies in environmental management
ENVM7011 Environmental law and policy in Hong Kong

By June 1 students must have submitted their dissertation titles for approval by the Board of Studies. They will be expected to make a start on the work for this dissertation during the long vacation.

SECOND YEAR

1. Three compulsory courses:

ENVM8003	Conservation biology and management
ENVM8005	Environmental auditing and management systems
ENVM8006	Environmental impact assessment

2. One course from the list of optional courses below.

List of optional courses:

ENVM8001	Air and noise pollution control
ENVM8008	Special topics in solid waste and water quality management
ENVM8010	Earth science and environmental management

The Dissertation (equivalent to 2 courses)

The Dissertation (ENVM8004) will be written during the second year. Attendance at a colloquium at which presentations based on the work for the dissertations is required. This normally takes place in March. The final version of the dissertation must be submitted by April 15, or if a Sunday the next following working day. On the successful completion of the degree, a copy of the dissertation will be lodged in the University Library. Therefore, all material included in the dissertation should be suitable for public access.

B. COURSE CONTENTS

FIRST YEAR

ENVM7002. Environmental economics

Economic analysis approaches environmental management questions through the systematic comparison of benefits and costs associated with the various technological and planning options. Often, in the case of the environment, such comparisons are particularly difficult because the benefits (and sometimes the costs) are not in money terms. The first part of this course provides a summary of basic concepts in economic analysis (e.g., comparing of marginal costs and benefits). The second part focuses on topics of particular importance to the economic assessment of the environment (e.g., externalities, common property resources) and an introduction to project evaluation techniques.

ENVM7003. Introduction to ecology

Definition; habitats; biogeographical distribution and abundance; evolution and adaptation; population dynamics; inter-specific interactions; trophic levels and energy flow; the ecosystem concept; biological diversity and community stability/disturbance; man and his environment; extinctions/habitat destruction; biological conservation; human populations, technology and environmental change; monitoring change in the biological world.

ENVM7004. Planning, environment and sustainability

This course focuses on the interface between planning systems and environmental management using the concept of sustainable development as an integrating conceptual framework. The evolution of the concept of sustainability is discussed and attention is focused on the development and use of sustainability indicators, policies for sustainability and the transition to sustainable development paths.

ENVM7009. Environmental pollution and its control in Hong Kong

Types and sources of pollution in Hong Kong; an introduction to air pollution and air pollutants; effects of air pollution; the air pollution index; air pollution ordinances; effects of noise on people; units of sound; sound measurement equipment; community noise sources; principles of noise control; waste generation; characteristics of solid waste; waste management options; waste treatment processes; wastewater characteristics; wastewater treatment processes; potable water quality and supply; biological effects of pollution; legislation, enforcement, education and conservation.

ENVM7010. Case studies in environmental management

This course consists of a series of special topics, drawn from both Hong Kong and abroad, which illustrate how the various professional disciplines come together in the treatment of environmental problems.

ENVM7011. Environmental law and policy in Hong Kong

This course consists of two major elements:

(a) Environmental policy making in selected Asian countries in order to set Hong Kong's evolving environmental policy framework in a broader regional context - comparative analysis of institutional structures for decision-making on the environment, the nature of policy mechanisms used by different countries and modes of policy implementation; and

(b) Legal aspects of environmental pollution, primarily in the Hong Kong context; the basic features of the Hong Kong Legal system; common law applicable to environmental control, focusing on such matters as strict liability and the torts of nuisance, trespass and negligence; statutory controls relating to environmental protection including general controls in the Summary Offences Ordinance and Public Health and Urban Services Ordinance and delegated legislation, the Water Pollution Control Ordinance, Waste Disposal Ordinance, Air Pollution Control Ordinance, and Noise Control Ordinance.

SECOND YEAR

ENVM8001. Air and noise pollution control

Micrometeorology - mixing height, lapse rate, stability classification; air dispersion modelling - gaussian model, wind-tunnel model, plume rise; source control of air pollutants - cyclones, electrostatic precipitators, wet scrubbers, absorbers.
Vibration and noise generation in buildings; air-borne and structure-borne noise transmission; controlling noise in enclosed spaces; vibration isolation of machinery; legislative and technical measures for controlling outdoor noise.

ENVM8003. Conservation biology and management

This course is concerned with biodiversity issues in environmental management. The major topics covered will include: the nature and value of biological diversity; global and local patterns of biodiversity; current threats to global biodiversity; the design and management of nature reserves; conservation genetics; *ex situ* conservation; methods for the assessment of the conservation value of a site; conservation of terrestrial and marine biodiversity in Hong Kong.

ENVM8004. Dissertation *(equivalent to 2 courses)*

The dissertation is an individual, independent research project carried out under the supervision of one or more faculty members. Students may propose their own topics and approach possible supervisors, or they may consider those suggested by faculty members. In either case, the proposed dissertation title must be submitted for approval by June 1 of the first year of their study. Normally, the student develops the research outline in collaboration with his or her faculty advisor and then collects data, carries out analysis and writes the report prior to the colloquium. The deadline for submission of the dissertation is April 15 (or if a Sunday the next working day) of the second year of the programme. On the successful completion of the degree, a copy of the dissertation will be lodged in the University Library. Therefore, all material included in the dissertation should be suitable for public access.

ENVM8005. Environmental auditing and management systems

Principles of environmental auditing and environmental management systems (EMS); structure and organization of audits; acting on audit outputs; environmental reporting; development of standards for auditing and EMS; BS7750; EMAS; ISO14000; auditing in Hong Kong and case study applications.

ENVM8006. Environmental impact assessment

Origins and development of EIA; impact assessment methodologies; ecological aspects of EIA; project and strategic assessments; EIA and the decision making process; EIA in Hong Kong; case study applications of EIA.

ENVM8008. Special topics in solid waste and water quality management

Special topics in solid waste and water quality management will be selected from the following areas: agricultural waste disposal; soil pollution; industrial and chemical waste; construction waste; disposal site selection; restoration of landfills; remediation and restoration of contaminated land; advanced chemical, physical and biological wastewater treatment processes; sludge disposal; industrial wastewater minimization; integrated waste management and planning issues.

ENVM8010. Earth science and environmental management

This course will examine major issues of earth science of relevance to environmental management. Case studies based on past experiences with application to Hong Kong and other major coastal cities will be emphasized. Topics include: chemical composition of earth materials; geochemical surveys; environmental application of isotopes; geological and geochemical aspects of human health; geological record of environmental change with special reference to the Quaternary period; fluvial processes and flood management; coastal processes and coastal management; environmental impact of mining and dredging; geological aspects of land use planning, of water resource management, and of waste disposal.