
MASTER OF SCIENCE (ENVIRONMENTAL ENGINEERING)

For Cohorts Prior to AY2022/2023

The Master of Science (Environmental Engineering) programme, or M.Sc. (EVE) in short, is targeted at graduates who are either working, or considering a career, in environmental engineering, and wish to be part of the global effort to incorporate environmental considerations in all human activities. Its curriculum is sufficiently flexible to accommodate students from different science and technology backgrounds as well as provide practicing engineers an opportunity to enhance their technical competence.

This programme is also suitable for graduates who wish to build on their prior educational background and professional experience in the field of environmental science and technology, and to acquire new skills for solving advanced environmental engineering problems, thus enabling them to contribute in greater measure to Singapore's push to develop its environmental technology industry. The programme will prepare students to contribute to the environmental protection efforts spearheaded by the countries in the region. In addition, this broad-based educational programme would be of relevant interest to professionals in the government's regulatory and statutory bodies, as well as in institutes of higher learning.

Programme Information

(Applicable for all students with effect from intake January 2010)

The Master of Science (Environmental Engineering), or M.Sc. (EVE) is structured around lectures, continual assessments and end-of-semester examinations. Candidates may opt for part-time or full-time study.

The graduate requirements include obtaining a minimum Cumulative Average Point (CAP) of 3.00 (equivalent to an average grade of B-) for the best 40 Modular Credits (MCs), inclusive of core modules. Of the 40 MCs, all must be at graduate level and at least 30 MCs must be within the subject or in a related discipline, and the remaining credits may be from other disciplines with prior approval by the Head of Civil & Environmental Engineering Department or his nominee.

Students should also note that the final composition of graduate modules proposed by themselves is subject to approval by Department of Civil & Environmental Engineering.

Tuition Fee

Please click [HERE](#) for tuition fee of students admitted prior to AY2022/2023.

Period of candidature

- Part-time students between 4 semesters and 8 semesters (maximum)*,
- Full-time students between 2 semesters and 4 semesters (maximum)*.

**Note: excluding up to 2 semesters of approved Leave of Absence.*

Programme Structure for M.Sc. (Environmental Engineering)

- To complete the following **1 core module**
ESE5001 Environmental Engineering Principles
- At least 7 elective modules** from the following
ESE5XXX Any ESE5000-level series graduate elective module
ESE6XXX Any ESE6000-level series graduate elective module
- Up to 2 additional elective modules for a total of 10 modules for the M.Sc.
- Note that all 10 required modules can be from Department of Civil and Environmental Engineering but a maximum of 2 modules of the 10 required modules may be from other Departments / Faculties, including the following modules (subject to approval by Department of Civil and Environmental Engineering)
 - DE5107 Environmental Planning
 - GE6211 Spatial Data Processing
 - LX5103 Environmental Law
 - PP5227 Environmental Policy and Natural Resource Management
 - SH5101 Industrial Toxicology
 - SH5104 Occupational Health

All modules listed are 4 MCs each, unless otherwise stated. Please note also that not all modules listed are available in any one year.

For more details on the modules offered, please refer to [Timetables](#).

Electives Modules for MSc (Environmental Engineering)

ESE5002	Environmental Physical Process Analysis
ESE5003	Environmental Chemical Processes Analysis
ESE5004	Research Project
ESE5201	Combustion Pollution Control
ESE5202	Air Pollution Control Technology
ESE5203	Aerosol Science and Technology
ESE5204	Toxic & Hazardous Waste Management
ESE5205	Sludge and Solid Waste Management
ESE5301	Environmental Microbiology and Biotechnology
ESE5401	Water Quality Management
ESE5402	Industrial Wastewater Control
ESE5403	Water Reclamation & Reuse
ESE5404	Biological Treatment Processes
ESE5405	Water Treatment Processes
ESE5406	Membrane Treatment Process Modelling
ESE5407	Membrane Technology for Water Management
ESE5607	Green Catalysis
ESE5608	Heavy Metals in the Environment
ESE5880A	Topics in Environmental Engineering: Chem. & Lab Safety
ESE5880B	Climate Change and Urban system
ESE5880C	Topics in Env. Eng. – Environ Sys Planning & Analysis
ESE6001	Environmental Fate of Organic Contaminants
ESE6002	Advanced Environmental Physical Process Analysis
ESE6003	Advanced Environmental Chemical Process Analysis
ESE6301	Topics in Environmental Biotechnology

Number of modules per semester

- Part-time students: 2 per semester (recommended), up to 3 per semester (maximum).
- Full-time students: 3 per semester (minimum), up to 5 per semester (maximum).