Department of Environmental Health

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The Department of Environmental Health offers a graduate program leading to the MS degree in Environmental Sciences (Major: Environmental Health). For details regarding the MS degree, refer to the Admissions section of this catalogue and the section of the Division of University Interdisciplinary Programs (page 30).

In view of the increasing interest in development and its impact on the human environment, a variety of courses offered by this department are made available to students in other fields.

Graduates of the MSES-Environmental Health program may occupy senior or intermediate posts in:

- government agencies, such as the Ministry of Health, Ministry of the Environment, municipalities, or health centers;
- the private sector, which offers a variety of job opportunities in industry, research institutions, universities, schools, and private businesses; and/or
- international agencies.

ENHL 300 Introduction to Environmental Health  2.0; 2 cr.
A course that introduces students to the physical life support system and the interaction of its elements within the socio-economic context. Emphasis is placed on assessing, preventing, and controlling environmental hazards affecting human health and ecological wellbeing. The role of local and global regulatory agencies in impacting change and sustaining a healthy environment is highlighted. Enabling communities through this process of sustainable development is emphasized.

ENHL 307 Food Safety and Health  3.0; 3 cr.
The course focuses on the safety and management of processed food products. It addresses the advantages and limitations of food processing techniques and in specific the application of food additives. Areas covered relate mainly to food safety and quality control, health impacts, types and limitations of food processing methods, use of food additives, exposure estimation, toxicological implications, risks and benefits governing use and quality control measures and applications both at the national and international levels.

ENHL 308 Tutorial  1–3 cr.
A tutorial on special environmental health projects of interest to the students. A written report is required.
ENHL 310  Toxicology and Environmental Health Hazards  3.0; 3 cr.
A course that reviews the essentials of toxicology: dose response, toxicokinetics (absorption, distribution, metabolic conversion, elimination), and the molecular basis for toxic action, target organ toxicity, mutagenesis, teratogenesis, and carcinogenesis. Selected chemical and biological agents that adversely affect man and environmental quality are introduced as case studies.

ENHL 312  Occupational Health  2.3; 3 cr.
If half our life is spent working, our health is necessarily tied to the work we do. This course offers a general introduction to the principles of occupational health, relating work, the work environment, and workers' health and wellbeing to general principles of social equity and justice. The course surveys the research on the social, economic, political, environmental, structural, and health elements of a workplace using multi-disciplinary approaches. Students who join the course are able to identify occupational hazards and work-related injuries and illnesses in workplaces and propose monitoring, management, and prevention strategies to lessen their impact on workers. With its emphasis on social justice, the course discusses the factors that make some workers' groups more vulnerable than others and highlight the challenges facing labor advocates wanting to improve workers' lives. This course is designed for students of multiple educational and training backgrounds and does not require prerequisite knowledge.

ENHL 320  Special Topics in Environmental Health  1-3 cr.
A course that covers selected topics such as risk analysis, environmental ethics and justice, or environmental policy and allows focused examination of special topics of interest to trainees in Environmental Health.

ENHL 314/ENSC 642  Environmental Management Systems  3.0; 3 cr.
This course provides an overview of the most common international standards for environmental management systems, primarily the International Standards Organization (ISO) harmonized management systems, and its implications for different firms. It provides students with the skills to design, implement and assess such management systems. Though the first part of the course is mainly lecture based, student participation in the form of questions and discussion is always welcomed and encouraged. Critical thinking is promoted throughout the course. Students are expected to prepare a technical report on a firm or industry of their choice and to communicate project findings to their colleagues through verbal presentation. Emphasis is placed on solving environmental problems using an integrated approach in order to achieve an optimized management performance. *Alternate years.*

ENSC 695  Comprehensive Exam  0 cr.
ENSC 699  Thesis  6 cr.
ENSC 697  Project  3 cr.
The project must be undertaken, in partial fulfillment of the requirements for the degree, upon the completion of at least 27 credits of core and elective courses.
A student who is unable to finish the project in one semester can register for it one additional time.