QUEEN'S UNIVERSITY

School of Environmental Studies Graduate Program Guide

Progress and Course Requirements

Rm 3134 Biosciences Complex • Queen's University
Kingston • Ontario • Canada • K7L 3N6
Phone 613.533.6602 • Fax 613.533.6090
envst@queensu.ca

www.queensu.ca/ensc

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Progress through the Degree (Pace)

Students undertaking a research masters are expected to complete their degree within 2 years (6 semesters), whereas course-based students should finish in less than 2 years (generally 4-5 semesters). **Beyond these timelines, the School cannot guarantee financial support**.

RESEARCH STREAM:

- The following notes are **guidelines only**.
- The progress of research Masters students will be similar to that of any other research Masters at Queen's.
- The **typical** student should take 2-4 half-credit graduate courses in their first two semesters, choosing those that meet the requirements of the degree (i.e., ENSC 801*, 802*) and those that provide in-depth disciplinary material related to their thesis research topic. Any remaining courses would be taken in semesters 4 and 5. Students working in one or more disciplines where they do not have an extensive background should be prepared to take introductory level courses as pre-requisites to the graduate courses.
- Supervisory Committees should be organized and meet for the first time in semester 1 or 2 of the degree, and the student should define their thesis subject with their supervisor in advance. Throughout semesters 1 and 2, the student will conduct in-depth library research to develop and refine a detailed research proposal. This proposal should be presented in draft outline form at the first meeting of the Supervisory Committee and ideally in a more detailed and extensive form at a second meeting late in semester 2. The proposal may ultimately be incorporated into the introductory chapter of the thesis.
- Students will share their ideas in a presentation (PowerPoint) during Research Day near the end of semester 2. Second year MES students will present their work in poster form at the same session.
- Research for the thesis should be conducted in semesters 3 through 5 and the thesis should be prepared, submitted and defended by the end of semester 6. The student will be supported financially by QGA or other internal funds throughout the six semesters, by TA-ships during semesters 1, 2, 4, & 5, and by research funds where needed. There is no QGA or internal support and no guaranteed access to TA-ships after 2 years.

COURSE-BASED STREAM:

- Course-based students may require as few as three semesters to complete the requirements of the degree, but no more than six.

- The **typical** student would take 4-6 half-credit graduate courses in their first two semesters, choosing those that meet the requirements of the degree (i.e., ENSC 801*, 802*) and those that provide in-depth disciplinary material related to their project topic. Any remaining courses would be taken in semesters 4 and 5. Students working in one or more disciplines where they do not have an extensive background should be prepared to take introductory level courses as pre-requisites to the graduate courses.

- Students will share their ideas in a presentation (PowerPoint) during Research Day near the end of semester 2. Second year MES students will present their work in poster form at the same session.

- Advisory Committees should be organized and meet for the first time in semester 1 or 2 of the degree, and the student should define their project with their advisor in advance. Throughout semesters 1 and 2, the student will conduct in-depth library research to develop and refine a detailed project proposal. This proposal should be presented in draft outline form at the first meeting of the Advisory Committee and ideally in a more detailed and extensive form at a second meeting late in semester 2. The proposal may ultimately be incorporated into the project report.

- Research for the project should begin in semester 2, but most of the work would occur in semester 3 or later. It is possible for the report to be prepared, submitted and marked by the end of semester 3. The student will be supported financially by QGA or internal funds each semester in residence, up to a maximum of 5, and by TA-ships during semesters 1, 2, 4, & 5. There is no QGA or internal support and no guaranteed access to TA-ships after 5 semesters.

For both streams, medical or other leaves may be granted according to the regulations of the Graduate School. This will affect the timelines above.

Course Requirements

To remain in the program, students are required to pass all courses with a minimum grade of 65. If a mark on any course is lower than 65, the student will be asked to re-take the course, and if the mark is still below 65, the student will be asked to withdraw from the program.

All students will be required to complete two core courses offered by the School. Students in the research-based option will take another two half courses, for a total of four. The non-thesis students will take a total of six half courses including the two core courses, four graduate electives from the School and/or outside the School (see below) and a major paper. The four graduate course electives may include a maximum of one 400-level or above undergraduate course.

Students are also encouraged to attend weekly School seminars. The School has a very active seminar series.

Consult the online Graduate Course Calendar for course descriptions and offerings.

ENSC Graduate Courses

Two ENSC courses (801*, 802*) are required elements of the research- and course-based masters. They reflect the multifaceted nature of environmental problems, promote interdisciplinarity, and provide the conceptual background and exposure to case studies needed to develop a broad view of environmental sustainability, and a framework that could support their research projects. These courses should be taken in the first year of a degree.

Courses

ONLINE COURSE CALENDAR

ENSC 801* - METHODOLOGICAL AND CONCEPTUAL BASIS FOR ENVIRONMENTAL STUDIES

The course examines methodological and conceptual issues arising from Environmental Studies position as an inter-, multi- and/or trans-disciplinary practice. It will focus on the inherent difficulties in overcoming disciplinary fragmentation in approaches to studying complex issues in environmental sustainability that require integrated understandings of the inter-relations between social and natural systems. The course will promote methodological literacy beyond student's own area of expertise, develop critical and reflexive thinking about

how environmental studies might approach issues of sustainability, and encourage and facilitate communication across disciplinary paradigms. The course precedes and compliments ENSC 802*, familiarizing students with the historical origins, philosophical underpinnings and practical deployment of key approaches within the social and natural sciences and humanities. Three term-hours; Fall.

ENSC 802* - GLOBAL ENVIRONMENTAL PROBLEMS: ISSUES IN SUSTAINABILITY

This course focuses on real-world environmental problems analyzing their social, ethical, and biogeochemical origins, economic ramifications, and institutional frameworks for their mitigation and resolution in the context of environmental sustainability. This course would logically follow or run concurrently with ENSC 801*, and will deepen and continue the themes through consideration of the intellectual history of theories and concepts relevant to environmental studies, with a focus on the concepts of "sustainability" and "sustainable development". Three term-hours; Winter.

ENSC 816* - ENVIRONMENTAL CHEMICALS – FATE, TRANSPORT AND BIOACCUMULATION

The course will compare and contrast the behaviour of persistent, bioaccumulative and toxic compounds, such as methyl mercury and chlorinated aromatic compounds, with the behaviour of less persistent chemicals such as petroleum hydrocarbons and modern pesticides. Subjects of interest may include sediment diagenesis, long-range transport, methylation processes, and interactions between biomagnification and ecosystem structure and productivity. Three term-hours; Fall or Winter; Offered with BIOL 816*. **NOT CURRENTLY OFFERED**

ENSC 840*- DIRECTED STUDY

This course provides an opportunity for students to independently study a selected topic under the supervision of one of more faculty members. This may take the form of a reading course with an assigned paper, but other possible formats would be considered. For detailed information, consult course coordinator. Three term-hours: Fall or Winter. Course coordinator: H. Jamieson.

ENSC-898 MASTER'S PROJECT (COURSE-BASED)

ENSC-899 MASTER'S THESIS

OTHER COURSES AVAILABLE TO MES STUDENTS:
Electives may be chosen from among graduate courses available in any department on campus, subject to the permission of the instructor. The online course calendar from the School of Graduate Studies for 2009-10 is at the following link http://www.queensu.ca/calendars/archive/2009-10/sgsr/index.html. Check the Graduate School website for the course calendar for 2010-11.

Courses that MES students have taken in previous years: Link

SGS 804 Human Research Ethics (aka CHRPP) is a non-credit course that must be taken by all graduate students who will engage in research involving human subjects. It must be listed on an Academic Change Form so that it will appear on transcripts. SGS 804 does not count towards the MES degree and cannot be substituted for a regular graduate course. It is a web-based tutorial on Canada's national standards of ethics for research. We encourage MES-2 students to take this course if their research involves human subjects. It is compulsory for MES-1 students engaged in this type of research.

In addition, MES candidates may register for one 4th-year course, provided the instructor is prepared to upgrade the course on an individual basis to a graduate course. Queen's University Academic Calendars

Dates & Deadlines

The School of Graduate Studies provides a yearly table of dates and deadlines. Check the website for current information on Sessional Dates.

Timeline

The School of Environmental Studies **suggests** the following internal timeline:

In the first semester, take courses, establish a project and supervisory/advisory committee.

The first committee meeting should be scheduled for late December or early January of the first year with additional committee meetings in May of the first year.

In the second year committee meetings are recommended in September and January for finishing course-based students and September, January and May for all others.

Follow the dates and deadlines for completion from the School of Graduate Studies taking into account the regulations regarding convocation and payment of fees. You should consult with your supervisor/advisor about the timing of submission of your report or thesis and oral presentation for research-based students.