SAINT MARY'S UNIVERSITY
ENVIRONMENTAL SCIENCE PROGRAM

2011-2012 HONOURS PROGRAM GUIDE

INTRODUCTION

The purpose of the guidelines presented below is to provide students with an idea of the various steps involved in both the honours program and in completing the honours thesis. It is important to distinguish between these two. The honours program is a complete program of study and shows up (like a major or concentration) on your registration status. Once you have been accepted into the program your registration status at the university will change from "major" (MAJ) to "honours" (HON). The honours program requires certain courses for graduation. One of those courses is "ENVS 4599.0 Honours Research Project". Thus, it is possible to be registered in the honours program for several years but be taking ENVS 4599.0 for only one of those years (usually the year in which you graduate). The guidelines for honours programs may vary across departments. Students should review the Environmental Science Program guidelines and discuss these with their supervisor and the Environmental Science Program Coordinator.

The purpose of the honours thesis is to demonstrate competency in carrying out research and reporting on the results and prepare students for both graduate school and help them become professional environmental scientists.

ADMISSION

To obtain an honours degree in Environmental Science, a student must first be admitted to the honours program and then graduate from the honours program.

To enter the honours program, it is necessary to apply through the Registrar's Office, using the appropriate form and noting on the form your honours supervisor. This form, with your transcript, and a brief outline of your proposed honours research project will be circulated for review by the faculty of the Environmental Science Program and the office of the Dean of Science. Once this has been done, you will hear from the Registrar's Office whether you have been accepted into the program. The honours program is similar to the major program in Environmental Science, but requires additional courses (consult the Science Faculty regulations outlined in Section 3 of the Academic Calendar). The honours program also demands a higher average: the minimum is 3.00 GPA.

OBJECTIVES AND EXPECTATIONS OF THE HONOURS RESEARCH PROJECT COURSE

a. During the course, the student will become familiar with the current research literature. The student should demonstrate independence (ability to gather information from various sources without excessive need for guidance) and initiative (tries to find answers on his/her own). Additionally, the student will learn to complete an adequate literature review on his/her thesis topic.

b. The student will generate a research question that is testable (supervisor can provide the context in a well-defined area) and, when necessary, design an experiment or an observational methodology to test the hypotheses.

c. The student may conduct an experiment or make observations and analyze the data in a manner that tests the research hypothesis.

d. The student will demonstrate organization skills, maintain a field and laboratory notebook, complete the tasks on-time and properly, attend research meetings (as scheduled by supervisor), and follow directions.

e. Following the department and faculty guidelines, the student will complete all the research phases in a timely manner.

STEPS FOR COMPLETING THE HONOURS RESEARCH PROJECT COURSE ENVS 4599.0

A. Getting started

1. Students must be officially accepted into the honours program.

2. Before undertaking an honours research project, students must find a faculty member to supervise the project. Students are advised to check with the Program Coordinator about supervisor regulations (e.g., acceptability of non SMU faculty to serve as honours thesis supervisors).

3. Students may carry out projects based on field or laboratory work done during summer employment but a substantial part of the project must not have been written prior to registration, as part of the employment. The student must explain, in a proposal, how the work has been divided between employment and university study.

4. The Program may from time to time circulate lists of suggested projects for students' consideration.

5. Students in consultation with their supervisor must submit a written proposal for approval. Students are encouraged to submit this proposal before work is started and, in any case before the final date for late registration in the first semester (*see the current Academic Calendar*). The proposal should include:
    - The title of the thesis.
    - The name of the supervisor.
    - The rationale of the project including the objective(s) and hypotheses to be tested.
    - A brief description of the methods and materials to be used.
    - A timetable for activities related to the different parts of the thesis such as literature review, experimentation/data collection, data entry and analysis, data interpretation, and writing up.

6. The proposal will be reviewed by the supervisor and the Program Coordinator, or designate, within one week. The following factors will be considered in the approval of projects:
    a) Originality and scientific value of the proposed work.

b) Whether the proposed work is well focused and likely to lead to useful results within the time available (work involved should be equivalent to a normal full-year course).
c) The student's previous record. An average grade B is required in honours courses. Projects submitted by students who appear unlikely to satisfy this or any other academic regulation will not be approved.

7. Although there will be no direct grading of the proposal, it will be used to evaluate the work of the student during the research and will help grading the overall work accomplished by the student.

B. Carrying out the research project

8. **Supervisory meetings**. It is expected that the supervisor(s) and the student will meet on a regular basis during the year to discuss the student's progress on the research project. The frequency may vary according to the supervisor and the student.

9. A **First Semester Grade** (5% of the final grade) will be given by the supervisor on the basis of an assessment of the student's progress and an IP will be sent to the Registrar's Office. The student must be encouraged to submit to his/her supervisor the following:
    a) A comprehensive literature review related to the topic of the research project.
    b) The objectives and hypothesis (this is especially important for students who had to modify their projects).
    c) Methods used in the project.

10. **First draft of the thesis.** A draft of the complete thesis should be submitted to the supervisor no later than mid-March (or as determined by the supervisor). The supervisor may suggest alterations to be made to this copy. Unless both parties have previously agreed upon a late submittal, the supervisor may refuse to read a late draft copy.

11. **Due date of final thesis manuscript.** The Program Coordinator in consultation with the faculty of the Environmental Science Program will determine at the beginning of each academic year the due date for the final draft and the students will be informed. Two final draft copies are required; one submitted to the supervisor and the other to the Environmental Science Program Secretary. The due date for the final thesis manuscript is listed on the page "**Deadline Dates**" attached to this document.

C. The format and content of the thesis manuscript

12. **The final thesis manuscript** should be well written and organized, and it should include coherent hypotheses and inferences. It should include a thorough (yet concise) summary of the relevant literature. The manuscript should include bibliographic references, and, if appropriate, table, charts, graphs, and/or figures. The student should be able to identify the implications of the findings and make suggestions for future research and recognize the strengths and weaknesses of the study. Students should check with their supervisor about the specific components that should be present in the thesis manuscript. *It is strongly encouraged and recommended that students should attend the thesis-writing workshops conducted by the Writing Centre.*

13. The honours thesis must be formatted and have content that is in accordance with the **University Library regulations** detailed in the document "Honours Thesis Format Requirements and Binding Procedures", available at: *http://www.smu.ca/administration/archives/documents/th004_honours_procedures.pdf* with a useful check list at: *http://www.smu.ca/administration/archives/documents/th001_honours_binding.pdf* Students can avoid panic situations just prior to graduation by studying these regulations in advance, since no grade can be recognised before these regulations have been met.

14. **Acknowledgements and use of copyright material**. Students must properly acknowledge the use of any data that has been obtained by others. Reproduction of published figures may require written permission from the original publisher. This

written permission (generally available through the publisher's web site) must be made available on request.

D. The examination and grading procedure

15. Each honours thesis will be marked jointly by supervisor and one other examiner (a suitably qualified person from **outside or inside** the university, selected by the Program Coordinator, in consultation with the supervisor). The examiners may require the student to submit original field or laboratory notes made in the course of the research.

16. Students will be asked to make a 20 minute **oral presentation**, which will then be followed by a question period that will not exceed 30 minutes. For the thesis presentation date see "**Deadline Dates**" attached to this document.

17. Marking Scheme:

Thesis Presentation (15%)

Presentation	3.0
Content	7.0
Questions	5.0

Thesis (85%)

Introduction, background and review material	10.0
Scientific results	50.0
Interdisciplinarity	5.0
Presentation of tables, figures and writing	15.0
First Semester Grade	5.0

18. It is the responsibility of the honours student's supervisor to submit the final grade to the Registrar's Office.

19. After an honours thesis has been accepted as satisfactory by the examiners, the original and two copies must be submitted for binding, in accordance with the University Library regulations for honours theses, before a final grade can be

awarded. If a student wishes to have further bound copies, the required number must be submitted at the same time.

20. After submission of the thesis for binding, the Registrar sends the copies of the thesis to the Patrick Power Library. Information Services arranges for the copies to be bound. When the bound copies come back, Information Services distributes them as follows:
    - one copy is catalogued and added to the general collection of the library.
    - the original is placed in the University Archives, where it remains forever as a record of the student work
    - one copy is sent to the student's department/program
    - any additional copies for the student are held at Information Services, Patrick Power Library, for the student to pick up.

HONOURS IN TWO SUBJECTS

It is possible to take an Honours program in two science subjects (Environmental Science and Biology or Chemistry or Geography or Geology, etc.). This is known as "Double Honours". Note, however, that it is not feasible to write two honours theses! The thesis will be written in **one or the other** of your honours subjects. Students intending to take double honours should pay careful attention to the calendar regulations for both subjects and the Faculty of Science regulations (Section 3 of the Academic Calendar). Students must consult with the Environmental Science Program Coordinator and the Chairperson of the appropriate department prior to making an application for a double honours degree. A double honours program is ***not*** the same as a **dual degree** program. A dual degree means you have completely satisfied the requirements for two separate degree programs.

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DEADLINE DATES

30 September 2011*****	Written honours research project proposals submitted to the supervisor and to the Environmental Science Program Office ***While the proposal is due at this time, students are encouraged to start work on their project before this date.**
14 October 2011	Proposal approval
09 December 2011	Written progress reports submitted to the supervisor
02 March 2012	First thesis draft submitted to the supervisor
16 March 2012	Final drafts submitted to the supervisor and to the Environmental Science Program Office
05 April 2012 (Thursday)	Thesis presentation (oral)
03 May 2012 (Thursday)	Final date to submit copies of the thesis to the Registrar's Office for binding

***Note:** All deadlines are a Friday, with the exceptions being the oral thesis presentation, (Thursday), and the final date to submit copies of the thesis for binding to the Registrar's Office (Thursday).*