SAINT MARY'S UNIVERSITY DEPARTMENT OF ENVIRONMENTAL SCIENCE HONOURS PROGRAM GUIDE 2025-2026 Academic Year

This is for Environmental Science students in the Honours Program (ENVS 4599 and ENVS 4799) and their thesis supervisors. This ENVS Honours Thesis program guide supersedes those of other departments for ENVS honours students.

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List of people and their contacts

Departmental Chair of Environmental Science & ENVS Honours Thesis Program Coordinator Dr. Linda Campbell, LM.Campbell@smu.ca

Role: Oversees the Honours Thesis Program and coordinates timelines and progressions with students and supervisors

Environmental Science Department Office

Nicole Luttrell, envs@smu.ca

Role: Administrative support, including assisting with printing of ENVS 4599 capstone posters, coordination of the Thesis presentation and evaluations (aka "defenses") in April.

What is the ENVS honours thesis?

The Honours Program is a complete program of study and shows up (like a Major or Minor) on the student registration status. Once a student has been accepted into the Program, the registration status at the university changes from "Major" (MAJ) to "Honours" (HON).

The purpose of the Honours thesis (ENVS 4599) is to demonstrate competence in carrying out research and reporting on the results, and both prepare students for graduate school and help them become professional environmental scientists.

Honours students are also required to enroll in Honours Research Frameworks (ENVS 4799), which is designed to support and guide the process of the honours thesis. ENVS 4799 has a separate syllabus and learning objectives designed to support the progress of the honours thesis and the associated skills.

Objectives and Expectations of the Honours Research Project Course (ENVS 4599)

- During the course, the student is expected to 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 (trying to find answers on his/her own). Additionally, the student will learn to complete an adequate literature review on his/her thesis topic.
- The student should generate a research question that is testable (the Supervisor can provide the context in a well-defined area) and, when necessary, design an experiment or an observational methodology to test the hypotheses.
- The student may conduct an experiment or make observations and analyze the data in a manner that tests the research hypothesis.
- The student will **demonstrate organization skills**, maintain a field, data analysis, modeling, or laboratory notebook, complete the tasks on-time and properly, attend research meetings (as scheduled by the Supervisor), and follow directions.
- Following the department guidelines, the student will **complete all the research phases in a timely manner**.

Program timelines and deadlines for ENVS 4599

Academic Deadlines are in BOLD and are firm. Other dates are highly recommended for students and supervisors to consider. All submissions are to be made electronically by email.

Regarding ENVS 4799 course expectations and deadlines, please refer to the ENVS 4799 syllabus. For further explanations, please consult the relevant sections in this Program Guide.

Fall term timeline

Date	Action	Notes
January –	Discuss possible	When you agree on a project with a supervisor,
August 2025	honours thesis	contact the Honours Program Coordinator with the
	projects with	supervisor(s) cc'd to request registration approval for
	prospective	ENVS 4599 and 4799. Once the approval form is
	supervisors.	signed, the Science Advising Centre will update
		Banner for both classes.
Around mid-	Recommended	It is highly recommended that at least one
September	meeting with	synchronous meeting is held to discuss expectations
	supervisor(s).	and logistics at the beginning of the Fall term.
Before or on	Written Honours	Note: While the proposal is due, students are
September 26	research project	encouraged to start work on their project before this
2025	proposals submitted to	date.
	the Supervisor(s) and	
	to the ENVS Honours	
	Program Coordinator.	
October 03,	Approval of proposal.	This will include a discussion of preferred formats
2025	Agree on a writing	and approaches for writing the thesis. ENVS is an
	plan and deadlines	interdisciplinary department, and each supervisor will
	with supervisor(s) and	have requirements for reviewing drafts and their
	send a summary to the	structure. Sending a timeline summary to the
	Program Coordinator.	program coordinator ensures accountability and agreement.
November 2025	Recommended	It is highly recommended that at least one
	meeting with	synchronous meeting is held to review progress at
	supervisor(s).	the midterm point.
December 5,	Written progress	The written progress report should be shared with
2025	reports submitted to	the Honours Program Coordinator.
	the supervisor(s) and	
	Program Coordinator.	The supervisor(s) will provide the Honours
	_	Coordinator with a final grade for the Fall term, to be
		entered into Banner. Please see "Examination and
		grading procedures" below.

Winter term timeline

Date	Action	Notes
February 6,	The first draft of thesis	Please send the first draft of the thesis to the
2026	is due.	supervisor(s) for review, cc'ing the Program
		Coordinator.

	-	
Mid-February	Recommended mid-	If a whole thesis draft cannot be completed by this date, please discuss with the supervisor(s) in advance the following options and send the final version of one of the following: - Outline of thesis; - Skeletal draft (point form) of the whole thesis Draft Introduction Chapter and Methods Section, with a summary of the results; OR - Progress summary and data update (not an ideal option). It is highly recommended that at least one
2026	Winter meeting with supervisor(s).	synchronous meeting between student & supervisor(s) is held to review progress at the midterm point.
February 13, 2026 (pending agreement)	Supervisor(s) confirms the external reader for thesis with student,	The ENVS Honours Program Coordinator can help with this discussion. It is the supervisor's responsibility to contact and
March 27,	Final drafts submitted	confirm the external reader's name and availability. Please send the external reader's names and contact details to the Program Coordinator. The evaluation template in the appendices can also
2026	electronically, with all cc'd: - the Supervisor(s) approved external readers the ENVS Honours Program Coordinator the Environmental Science Department Office (envs@smu.ca).	be sent to the approved readers and external examiners. It will help to guide them through this process. The final drafts should be saved as a single PDF file including all sections and appendices. Ensure the formatting follows that of the library requirements and has numbered pages.
April 13, 2026 9:30 am – 12 noon	Oral thesis presentation and questions.	This date may need to be flexible to work around the final exam schedule and will be decided via discussions in ENVS 4799 class and email correspondence with supervisors and external readers. Supervisors and external readers should have all feedback and comments ready for the student before
A!! 40 0000		feedback and comments ready for the student before the presentation.
April 16, 2026	Final grades submitted to the Program Coordinator.	Supervisors are responsible for collating, determining and recommending their student's ENVS 4599 final grade to the Program Coordinator.
April 20, 2026	End of revision process.	It is not recommended the students continue to revise their thesis past this date.
April 24, 2026	Last day for submitting final thesis to the Library.	Email confirmation of library submission to be forwarded to supervisors(s) and Honours Program

		Coordinator to ensure your final ENVS 4599 grade gets entered in Banner.
May 01, 2026	Very last day for final grades submitted to Banner	This is a firm date. Beyond this date, a late grade submission form will be required, and there may be delays updating Banner with the final marks. Note that any delays in submitting the final grade can affect the student's graduation and convocation.

Academic Integrity

Plagiarism and cheating will not be tolerated. Your thesis must represent your original work in your words. It is your responsibility to understand the University regulations and maintain high standards of integrity and ethics in your research and how you present your research (written, presentations and other media). The Library has an excellent resource page: https://www.smu.ca/academics/avoiding-plagiarism.html. If in any doubt at any point, discuss immediately with your supervisor(s) or/and the ENVS Honours Program Coordinator.

GenAl

Generative Artificial Intelligence (GenAI) using Large Learning Models (LLMs) such as Microsoft Copilot, ChatGPT, Gemini, Claude, Perplexity, Dall-e, etc, etc are now common and widely embedded in software programs used for research. **Please consult the ENVS 4799 syllabus for more information and details.**

YOUR honours thesis should be fully prepared by you. Note that the use of GenAl tools is not allowed for the development, drafting or finishing your honours thesis (ENVS 4599) -- unless it is explicitly a part of the research question itself and that you have discussed this with your supervisor(s). Please advise the Honours coordinator if this has been decided. Your use of Al tools must be properly documented and cited to stay within university policies on academic honesty. Link: https://studio.smu.ca/ai-in-teaching-and-learning

Steps for completing the ENVS 4599 Honours Research Project

Research Proposal

Following consultation with their supervisor(s), students must submit a written research project proposal for approval by the <u>deadline listed in the schedule</u>. 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. Ideally, the proposal can provide the "framework" for developing the final thesis as well.

The proposal should be 3-4 pages in length (excluding references), double-spaced and include the following:

- The title of the thesis.
- The name of the supervisor / supervisors

- The rationale of the project, including the objective(s) and hypotheses to be tested, and a statement of the research question.
- An overview of the data to be collected and the methodology used for the data collection.
- 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.
- An initial list of references, following the most common citation format in your field of discipline.

The proposal is reviewed by the supervisor(s) and the Honours Program Coordinator or delegate. The student may be required to review and resubmit the proposal if any required elements are missing or if the description of any proposal components is insufficiently clear. The following factors will be considered in the approval of projects:

- Originality and scientific value of the proposed work.
- 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).

It is suggested that the proposal be considered the "skeleton" of the final thesis document, and it be continually updated and revised throughout the academic year. For those wishing to learn more about SMU Honours thesis requirements and formatting, consult the Library's honours thesis resources.

Carrying out the research project

Supervisory meetings. The supervisor(s) and student will meet regularly during the year to discuss the student's progress on the research project. The frequency may vary according to the Supervisor and the student.

First draft of the thesis

A draft of the complete thesis should be submitted to the supervisor as per the Winter Timeline above, or as determined by the supervisor(s) and approval of the Honours Coordinator. The supervisor(s) may suggest alterations to be made to this copy. It is important to agree to those timelines when preparing the thesis writing plan in the Fall semester.

The final draft of the thesis must be submitted in digital form to the supervisor(s), Honours Program Coordinator and to the Environmental Science Department Secretary. Please check the honours thesis information and templates at the SMU library: https://www.smu.ca/academics/archives/honours-thesis.html.

It is also a good idea to consult previous ENVS honours theses in the Library's repository and compare the various approaches past students have used for their theses.

Selecting an external reader for the thesis

- It is the supervisor(s) responsibility to approach the external reader and ask them to review the student's thesis.
- The external reader is expected to be present at the student's thesis presentation and evaluation.
- The external reader can be someone from outside the thesis project and who has sufficient discipline knowledge to evaluate the research's quality.

- They can be a member of the ENVS department, another SMU department or from outside the University so long they have the necessary level of knowledge.
- They cannot be a collaborator, potential co-author or be able to directly benefit from the thesis outcomes.

The format and content of the thesis manuscript

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, tables, charts, graphs, and/or other figures. The student should be able to identify the implications of the findings, to make suggestions for future research, and to recognize the strengths and weaknesses of the study. Students should check with their supervisor(s) about the specific components that should be present in the thesis manuscript. It is strongly encouraged and recommended that students attend thesis-writing workshops conducted by the Writing Centre (https://studio.smu.ca/wc-home).

The Honours thesis must be formatted and have content in accordance with the University Library regulations detailed in the document "Honours Thesis Format Procedures Sheet". This document, along with details concerning the University Library submission process, copyright permission letter examples, template files for the signature page, title page, abstract page, etc., can be found on the Library website at Honours Thesis | The Patrick Power Library | Saint Mary's University (smu.ca). It is highly recommended that all students use the provided MS Word template or consult the template to make sure style requirements are followed closely.

Acknowledgements and use of copyright material. Students must properly acknowledge the use of any data obtained by others. Reproduction of published figures may require written permission from the original publisher. This written permission (generally available through the publisher's website) must be made available on request. Examples of copyright permission letters can be found on the University Library's website. Students should keep in mind that, depending on the publisher, the copyright permission process may take a long time, and they should therefore send out their permission requests as early as possible.

Examination and grading procedures

Fall Semester Progress Report & Grade

The student and the supervisor(s) should meet in late November before the written progress report is due to review progress and data collected to date. This is also a good opportunity to discuss data management plans and ensure data will be sufficiently archived or saved in an accessible way (this will be covered in the ENVS 4799 class). Ideally this document will serve as a "framework" for the final thesis, so students and supervisors are encouraged to check out the templates and the thesis format requirements at the SMU Library (Honours Thesis | The Patrick Power Library | Saint Mary's University (smu.ca)).

This interim progress report will allow a thorough discussion of the work done to date and to provide support for Winter semester planning leading up to the final honours defenses.

After the receipt of the progress report, the student will receive an final grade for the Fall semester, to be assigned by the supervisor(s).

Suggested Fall Semester Grading structure

Theme	Suggested number of pages
Overview of summer & fall work	0.5 – 1.0
Summary of types and extent of data collected. Include draft	1.0 – 5.0
maps, tables, graphs whenever possible.	
Methodology & work done.	1.0 – 2.0
Methods section draft. Also, this is a good opportunity to identify	
challenges & barriers, as well as successes & completed work.	
Tentative plan for the winter semester.	1.0
You are encouraged to include a Gantt chart, timeline or a	
calendar. This should "backtrack" from the expected 4599	
defense date.	
Appendices.	1.0-2.0
This is a good place to include your draft metadata and data	
management / archiving plan (as discussed in ENVS 4799).	

Final (Winter) Semester Grade

The supervisor will assign a grade based on research progress, the thesis itself and the quality of the oral presentation and the student's skill at answering the thesis questions from the committee and the external reader / reader. Please see Appendices 1 & 2 for the evaluation forms.

The Honours student's supervisor(s) is (are) responsible for collating and submitting the final grade to the Honours Program Coordinator who will then enter the final grade in Banner. The final grade consists of the oral presentation marks, the supervisors' marks and the external reader's marks. Please adhere to grading deadlines carefully as this impacts the student's convocation.

Also, the supervisor(s) and the external reader must sign the signature sheet for the final thesis before it is submitted to the library.

Please pay attention to the Winter semester timelines at the beginning of this document, as late submission of grades can impact the student's ability to convocate on time.

Final Honours Thesis Evaluation & Oral Presentation

Each Honours thesis will be marked jointly by the supervisor and one other external reader (a suitably qualified person from outside or inside the university who is not directly involved with the project). The external reader should be recommended by the supervisor and approved by the Honours Program Coordinator. The external readers may require the student to submit their original notes and data made during the research.

The draft and final thesis should be a single PDF version (no multiple files) with all sections and appendices included.

The presentations and questions are in a public forum. The department may send an open invitation to the Faculty of Science community. Students' friends and family are also welcome to attend the presentations.

The ENVS 4799 Capstone Posters which summarize the students projects will follow immediately after the honours presentations. This will provide everyone with an opportunity to discuss each project and to celebrate the completion of all projects.

Final Honours Thesis Evaluation (aka "the defense") and roles

Students

- Prepare the thesis as a single PDF and email to the examination committee (supervisor(s), external reader, Program Coordinator) in advance (see the deadlines table for the date).
- Prepare a 12 to 15-minute oral presentation.
- Be ready to answer up to 15 minutes of questions from the external reader, supervisors and the audience (see below).
- Each student will have a maximum of 30 minutes for the presentation and questioning.
- (Note that there will be a discussion in ENVS 4799 on the types of presentations and how to prepare and practice for your "defense").

The audience

- The presentation and the discussion is open to the department. ENVS faculty, staff, students and collaborators can be invited to listen to all presentations.
- Due to time constraints, there is no time for an open question session.
- There will be opportunities to discuss projects at the ENVS 4799 capstone poster session immediately after the honours presentations.

External Readers

- External readers will have up to 8 to 10 minutes to ask questions after the student's presentation.
- They will be expected to read the submitted thesis for quality, ability to do independent research and provide feedback on the thesis for the revisions.
- They will be expected to come to the thesis evaluation ready to ask questions and to assess the student's knowledge of their research project and the context surrounding their research project.

Supervisor(s)

- The lead supervisor is responsible for documenting feedback and making sure the final revisions are completed before the submission to the library.
- The supervisor(s) are expected to work with the student to prepare for the thesis evaluation (e.g. practice talks, review of the research context, etc).
- The supervisor(s) are expected to assess the thesis suitability and readiness for the thesis evaluation and provide feedback for the revisions.
- The supervisor(s) are expected to work with the student to finalize the thesis for submission to the SMU Library, including reviewing comments from external reader and committee with the student, ensuring the quality of work meets departmental expectations and guiding the student through the revision process.
- Once the thesis meets expectations, the lead supervisor will sign off the thesis signature page and the remaining forms.

Thesis Evaluation Chairs

- Thesis Evaluation Chairs do not grade the defenses or the student's work but will facilitate a fair and equitable discussion between supervisors and external reader regarding final grade and follow-up advice for students.
- The Thesis Evaluation Chair(s) are expected to oversee the integrity and timeliness of the thesis presentation(s).
- Ensure that the presentations and questions do not run overtime (total of 45 minutes). Recommended breakdown:
 - o 12–15-minute presentation.
 - 1-2 questions from the audience.
 - o 8-10 minutes of questions from the external reader.
 - Few questions from supervisor(s).
 - Remaining time: finalizing recommendations and confirming final decision with the student.
- Ensure that the questioning is appropriate for the level of honours thesis evaluations.
- Guide the process, starting with the honours thesis research presentation, through the questions, and finalize with the recommendations.
- The student will leave during the recommendation discussions, with only the committee, external reader, supervisor(s) and Thesis Evaluation Chair present.
- The Thesis Evaluation Chair will facilitate a discussion regarding the recommendations, including a review of the evaluation rubric, the final grades for the presentation, evaluation and thesis quality, the ability to respond to questions.
- The student will be asked to return to review the final recommendations for revisions and the grade.
- The Thesis Evaluation Chair will ask everyone except the *lead supervisor* to sign the forms and the thesis signature page. The lead supervisor can withhold the signature until the final thesis is completed to everyone's satisfaction.

Submission of the final thesis to the library

After an Honours thesis has been accepted as satisfactory by the lead supervisor, the examiners, and after the student has complied with the formatting requirements the final steps are to:

- Check the instructions at the SMU Library thesis repository: <u>Honours Thesis | The Patrick</u> Power Library | Saint Mary's University (smu.ca).
- The student should submit by email a single file PDF version of the thesis to theses@smu.ca, cc'ing the supervisor(s) and the Honours Program Coordinator.
- The email message should include the student's A-number, the signature sheet, and any applicable documentation, e.g. Research Ethics Board certificate, Animal Care Committee approvals and sampling permits, Restriction letter, Copyright letters, etc.
- Confirmation of library acceptance of the honours thesis emailed to supervisor(s) and Honours Program Coordinator.

NOTE: the supervisor(s) and the external reader must sign the signature sheet for the final thesis before it is submitted to the library.

Extenuating circumstances

- If there are extenuating circumstances, the Faculty of Science policies will apply. Link: https://www.smu.ca/faculty-of-science/science-student-forms.html.
- The lead supervisor will review the process with the student requesting consideration due to extenuating circumstances. If deadlines need to be adjusted within the Fall and Winter semesters, it is the lead supervisor's decision.
- If there are significant delays in meeting any significant academic deadlines it is necessary to involve the ENVS Honours Program Coordinator as soon as possible.
 - o The Declaration of Extenuating Circumstances (DEC) Form is mandatory.
- A student who doesn't complete their honours course by the end of the Winter Semester will be given an IP grade, which can stand for a maximum of six months. If the IP grade isn't converted to a real grade within the six months (e.g. by the end of October in the following academic year), it then changes to an F.

Helpful resources

- SMU Writing Centre: https://studio.smu.ca/wc-home
- SAS Software and Application Support Centre for computational and software support (e.g. R, Excel, coding etc): https://studio.smu.ca/sas-welcome.
- SMU Patrick Power Library Research Help: https://www.smu.ca/academics/research-help.html
- SMU Patrick Power Library Honours Thesis Requirements: https://www.smu.ca/academics/archives/honours-thesis.html.
- Academic Integrity: https://www.smu.ca/academics/avoiding-plagiarism.html.
- Extenuating Circumstances: https://www.smu.ca/faculty-of-science/science-student-forms.html.

Appendices (to come in the Winter semester)

- Appendix 1. Thesis Evaluation Form for supervisors and external readers.
- Appendix 2. Oral Presentation Form for supervisors, external readers and audience.

Note: the rubrics are IN DEVELOPMENT for 2025-26 and will be evaluated by the ENVS department after the oral presentations. Your feedback will be requested and welcomed.