

Environmental Health Reading: Thesis Research Proposal Preparation

ENVH 583; Spring 2014

Thursdays 1:30 - 2:20, Room T359

Course Instructor:

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Office Hours: Drop in or by appointment.

Course Goals: The main goal of this 1-credit class is to help students develop some of the skills required for successfully completing a Master's thesis or MPH project. This course is also open to PhD students who want additional support developing a dissertation or independent research proposal. All enrolled students are required to sign up concurrently for 1-2 credits of ENVH 700 (or 600) with a faculty advisor who will actively support the proposal development process. One credit for ENVH 583 is insufficient to support the work needed to develop a good quality proposal.

During this quarter, students will develop a proposal. This document should serve as a valuable and detailed resource for the Master's thesis, independent research project, or PhD dissertation. ENVH 583 provides milestones for the proposal development process; the development will occur outside of class. Integrated into these milestones will be requirements to meet with and obtain feedback from the student's preceptor about the research project and proposal.

Students will review components of research proposals and practice developing effective aims, hypotheses, background materials and analytic strategies. In addition to preparing a complete proposal for his or her research project, each student will be required to read assigned materials, hand in reflections about readings, give status updates, conduct peer reviews, make presentations, and participate actively in class discussions. The final project for the course will be a peer review "study section" modeled after the NIH peer review process.

Learning Objectives

At the end of this course students should be able to:

- Identify and create the key components of a research proposal
- Demonstrate the ability to conduct literature reviews and gather the critical scientific information related to the research proposal
- Demonstrate writing skills by writing, a clear, concise research proposal with scientifically defensible aims, methods and conclusions
- Develop the skills to objectively review and write a scientific critique of a colleague's proposal
- Describe the important concepts related to using human subjects in scientific research
- Describe the underlying concepts and principles of scientific misconduct and plagiarism

Class Website: <https://catalyst.uw.edu/workspace/sheppard/28752/>

Accommodation: To request academic accommodations due to a disability, please contact Disabled Student Services, 448 Schmitz (206) 543-8924 (V/TTY). If you have a letter from Disabled Student Services indicating that you have a disability that requires academic accommodations, please present the letter to the instructor in order to discuss the accommodations you might need in this class.

Requirements: The requirements for receiving credit for ENVH 583 are listed below. Each of these requirements will be evaluated to determine whether credit will be given for the course. In addition, during this quarter students are required to sign up for 1-2 credits of ENVH 700 (or 600) with a faculty advisor who will actively support the proposal development process. Some of the assignments require preceptor feedback and the 600- or 700-level credits provide the mechanism for ensuring that feedback will occur.

1) Complete all class readings, hand in all assignments, and actively participate in class discussions

Readings are intended to support your development as a scientist. Often they will form the basis for class discussion.

Most written assignments are (intermediate) drafts of the thesis proposal. **Students are required to turn in assignments with “hard” deadlines on time** (see boldface text on class schedule). For “soft” deadlines due dates are more flexible; students are still required to turn in these assignments.

2) Meet with thesis preceptor multiple times over the quarter and solicit their feedback on your work

Preceptor meetings should include conceptual discussions, plus feedback on the main study objective(s), thesis title, specific aims and hypotheses, study design, analysis approach, and other details. Students are required to turn in the preceptor’s feedback on one proposal draft as part of the required coursework.

3) Hand in a complete research proposal

See the proposal format guide for details. Intermediate deadlines to turn in proposal drafts during the quarter are intended to support student progress.

4) Participate in the “Study Section” review of other student proposals

- The class will be divided into two peer review groups or “study sections”. Each group will review the proposals from all students in the other group. Students will follow written instructions, briefly summarized here:
- Each student will:
 - Write and present critiques of two proposals following the critique template
 - Consider and score all proposals in their section
 - Turn in their scores and written critiques
- Study section etiquette:
 - Focus on making constructive comments that will help your peers improve their thesis research and write-up
 - Keep details of the peer review confidential – specific discussions and scores should not be shared outside of the “study section” discussion
- Each student will receive feedback from study section:
 - Written critiques from two peers and the professor
 - An average score from the study section

Readings

- Required readings are posted on the class website:
<https://catalyst.uw.edu/workspace/sheppard/28752/>
- No required textbook
- Multiple additional resources on a variety of topics are posted on the class website. See the resources page: <https://catalyst.uw.edu/workspace/sheppard/28752/194521>

Grading

- To get credit in this course, the student will submit a complete thesis proposal and complete all other class assignments including: provide the class with progress updates, write critiques for two thesis proposals written by peers, participate in the study section and score all proposals, actively participate in class discussions, and hand in additional written assignments.

ENVH 583 CLASS SCHEDULE 2014
(Subject to change)

Date	Topic	Readings	Assignments (Hard deadlines in bold . Turn in online before class unless otherwise specified)
Week 1: April 3	<ul style="list-style-type: none"> - Course requirements - Class structure - Proposal elements 	Syllabus	<ul style="list-style-type: none"> • Meet with preceptor; • Draft thesis title and specific aims
Week 2: April 10	<ul style="list-style-type: none"> - Reading the literature - Review of specific aims - Brief student presentations of thesis concept 	Materials posted on class website	<ul style="list-style-type: none"> • Meet with preceptor and review thesis title, specific aims and hypotheses, study design and other details • By April 9, turn in 1 power point slide with thesis title, preceptor, overall goal • By April 9, respond to scheduling poll
Week 3: April 17	<ul style="list-style-type: none"> - Literature searches; citation management (Meet in HS Library Teaching Lab) 	None	<ul style="list-style-type: none"> • Some students should bring a laptop to class • Turn in draft specific aims and thesis title page
Week 4: April 24	<ul style="list-style-type: none"> - Research requirements: human & animal subjects, Belmont Report, UW rules for student research 	Ethics-related materials posted on class website	<ul style="list-style-type: none"> • Turn in proposal draft through background & significance section (Note: abstract may be omitted until week 10)
Week 5: May 1	<ul style="list-style-type: none"> - Critiquing proposals - Analysis planning 	Materials posted on class website	<ul style="list-style-type: none"> • Fill out the ENVH583 analysis questionnaire for your thesis project (to turn in by week 7); share this with preceptor and get feedback • Be prepared to discuss the sample grant proposal and its critiques
Week 6: May 8	<ul style="list-style-type: none"> - Progress updates by students - Critique of example thesis proposals 	Sample thesis proposals posted on class website	<ul style="list-style-type: none"> • Turn in proposal draft through design and methods section (MS word format preferred) • By May 6, turn in proposal critiques (also bring to class for discussion)
Week 7: May 15	<ul style="list-style-type: none"> - Ethics, scientific misconduct and plagiarism 	Ethics-related materials posted on class website	<ul style="list-style-type: none"> • Request preceptor comments on proposal draft • Turn in your ENVH583 analysis questionnaire • Turn in the assigned reflection on readings (see website)
Week 8: May 22	<ul style="list-style-type: none"> - Making effective presentations - Poster design 	None; see poster design resources on class website	<ul style="list-style-type: none"> • Turn in proposal draft through approaches to analysis and results section (MS word format preferred); • Turn in comments from preceptor, either on the proposal draft or separately
Week 9: May 29	<ul style="list-style-type: none"> - Student Research Day (SRD) 	SRD Abstracts (available on DEOHS website)	<ul style="list-style-type: none"> • Attend SRD Poster Session • During SRD, identify posters using effective presentation strategies; take notes for discussion next week
Week 10: June 5	<ul style="list-style-type: none"> - Discussion of effective SRD presentations - Revisit peer review process - Course evaluation 	None	<ul style="list-style-type: none"> • Turn in a complete proposal (PDF format) • Bring effective poster notes to class
Finals Week (times TBD)	<ul style="list-style-type: none"> - Study section peer review 	In-depth review of your two assigned proposals; At least cursory review of the remaining proposals in your section	<ul style="list-style-type: none"> • Prepare written critiques for your two assigned proposals; Assign preliminary scores • Attend study section meeting, participate in the discussion, score all proposals • Turn in your scores immediately and critiques within 24 hours of your study section meeting