

Course Outline

EST 797 (#37221) 1 cr

ENVIRONMENTAL STUDIES SEMINAR: RESEARCH METHODS

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Department of Environmental Studies

SUNY College of Environmental Science and Forestry

Spring 2022, F 9:30 – 10:25 am, Bray 300

DESCRIPTION

Overview

This weekly seminar provides instructor and peer support for graduate students developing formal proposals for their thesis or dissertation research, in conjunction with participants' primary efforts with their advisor(s) (major professors) and steering committee. All MS and PhD students are welcome; the course is most well suited for those with a human dimensions or policy aspect to their research. MPS students working on a project that requires development of a research proposal are welcome, too. The aim is to have a research proposal completed for review and approval by the student's steering committee by or before the end of the semester, so that data collection may commence shortly thereafter. Includes protection of human subjects training and certification.

Prerequisites

While there are no formal prerequisites, prior completion of *EST 603, Research Methods and Design*, or its equivalent, is recommended.

Objectives

The primary objective for this seminar is completion of a formal proposal for master's thesis or doctoral dissertation research. Support is provided toward several intermediate objectives, as well:

- Defining a research question, clearly and succinctly;
- Reviewing prior, related scholarship on that question;
- Selecting appropriate method(s) for data collection and analysis;
- Developing a detailed plan for data collection and analysis, including practical considerations;
- Identifying all permissions required to carry out the proposed study (e.g. steering committee, partner organization, Institutional Review Board); and
- Giving an oral presentation on the research proposal, for feedback from seminar participants.

Additionally, this course is intended to help participants identify and engage in the practical and interpersonal strategies necessary for successfully launching graduate research.

Requirements

- Adhere to ESF's COVID-19 safety requirements and protocols (see below)
- Attend all class sessions & participate in class discussions
- Timely completion of all intermediate and final assignments

Recommended

- Attend all Environmental Studies Spring Seminar Series events (via Zoom)

Expectations

- Regular communication with thesis advisor(s) & steering committee

Grading

Research proposal & presentation	50%
Intermediate assignments (8)	30%
Attendance & participation	20%

Communication

Office: Baker Lab 214

Hrs.: TBA

E-mail: <dsonn@esf.edu>; <DASonnenfeld@gmail.com>

URL: <http://www.esf.edu/es/sonnenfeld>

TEXT

Recommended

Bui, Yvonne N. 2019. *How to Write a Master's Thesis*, 3rd ed. Los Angeles: Sage. ISBN 978-1506336091

Bookstore

Syracuse University Online Textbook Store: <https://syracuse.ecampus.com/>

RESEARCH PROPOSAL

Focus. The major assignment for this seminar is a completed, formal research proposal for a master's thesis, PhD dissertation, or MPS synthesis project.

Contents. Each of the following components should be included:

- Title/ cover page
- Abstract
- Statement of problem/ research question
- Justification
- Literature review
- Formal statement of research question
- Dependent and independent variables
- Hypotheses
- Research design and methods
- Protection of human subjects
- Research schedule
- Resource requirements
- Budget
- Funding
- Bibliography

Oral presentation. Present your proposal in class, length TBA (**Week 13**). Submit slides digitally (PDF format), via Blackboard. (20% of assignment grade)

Completed proposal. Maximum length: 20 pp. (double-spaced, 12 pt. Times New Roman), plus cover sheet, abstract, references, and appendices. Spelling- and grammar-checked; appropriate use of citations and references. Submit digitally (.docx format) via Blackboard, by the beginning of the regularly scheduled Final Exam period for this course. (80% of assignment grade)

Intermediate deliverables*

- Research question and abstract Week 2
- Topic reflection Week 3
- Working bibliography Week 5
- Literature review Week 6
- Research methods outline Week 8
- Research methods Week 9
- Human subjects protections Week 10
- Research practicalities Week 11
- «Draft» research proposal, including introduction Week 12

* Submit digitally (in *both* PDF and .docx format), via Blackboard

SCHEDULE

Week 1 (Jan. 28) – Introduction

*** Participant introductions ***

Personal introduction
 Program/ Advisor/ Steering committee
 Research topic
 Research status
 What would be most helpful from this seminar?

Expectations/ assumptions

Master's thesis – traditional format

Ch.1 Introduction*
 Ch.2 Literature Review *
 Ch.3 Methods*
 Ch.4 Results
 Ch.5 Discussion

* Included in research proposal

Master's thesis – manuscript format

(Ph.D. dissertation – traditional & manuscript formats)

Advisor/ Steering committee

Aims of this seminar

Provide instructor and peer support for research proposal development process
 Primary effort is between student, advisor & steering committee

A participatory seminar (not a lecture course)
 Help participants identify practical and interpersonal strategies necessary for successfully launching graduate research

Syllabus review

Textbook
 Grading
 Deliverables

Selecting a Research Topic

Selecting a topic

The relationship between theory and method
 What makes a problem/ topic interesting?
 What is researchable? Feasibility...
 The 'so what?!' factor
 The value of simplicity

Research question

What is a research question?
 What makes a *good* research question?

Abstract

Elements of an abstract

RECOMMENDED:

Bui, ch 1, "Overview of the Master's Degree and Thesis"
 Bui, ch 2, "Selecting a Research Topic"

OTHER:

Alford, Robert R. 1998. *The Craft of Inquiry: Theories, Methods, Evidence*. New York: Oxford Univ. Press.
 Booth, Wayne C., et al. 2008. *The Craft of Research*, 3rd ed. Chicago: Univ. of Chicago Press, ch's 3 & 4.
 Gustavii, Bjorn. 2012. *How to Prepare a Scientific Doctoral Dissertation Based on Research Articles*. NY: Cambridge Univ. Press.
 White, Patrick. 2009. *Developing Research Questions: A Guide for Social Scientists*. Palgrave.

*** Homework Assignment #1 – Research Abstract (due Fri. 2/4) ***

*** Meet w/ advisor(s) and take steps towards establishing/ meeting with Steering Committee ***

Week 2 (Feb. 4) – Research Proposals

*** Discussion of research questions/ abstracts (Homework Assignment #1) ***

Research proposals (review)

Why write a research proposal?
 Who reads your research proposal?
 What is included in the research proposal?

Approvals needed

Major professor(s)
 Steering committee
 Sponsoring/ cooperating organization (as applicable)
 Institutional Review Board (IRB)

Ch.1 Introduction

Research question
 Rationale
 Context (scholarly, policy, location)
 Significance
 Limitations

RECOMMENDED:

Bui, ch 2, "Selecting a Research Topic" (review)
 Bui, ch 5, "How to Write Chapter One, Introduction"
 Pzeworski & Salomon. 1998. *The Art of Writing Proposals*. NY: Social Science Research Council.

*** Homework Assignment #2 – Topic reflection (due Fri. 2/11) ***

Week 3 (Feb. 11) – Research Workshop #1

*** Debrief: Topic reflection (Homework Assignment #2) ***

+ The art of successfully working with your thesis advisor(s) and Steering Committee

Week 4 (Feb. 18) – Literature Review I

*** Informal check-in ***

Ch.2 Literature review

Review of the literature
 Identification of the scholarly/policy domain(s) in which the proposed study will be situated
 Key scholarly/ research/ policy contributions in those domains
 Significant debates, controversies
 Important gaps
 Proposed study
 Your proposed (synthesized) theoretical framework
 The anticipated contributions that your study will make to this/ these field(s) of study

Practicalities

Reliable sources/ accessing scholarly literature
 Identifying relevant, peer-reviewed journals
 Annual reviews/ review essays
 Bibliographical databases
 Properly citing and referencing source material

RECOMMENDED:

Bui, ch 3, "Using the Literature to Research Your Problem"
 Bui, ch 6, "How to Write Chapter Two, Literature Review"

OTHER:

Booth, et al. *The Craft of Research*, ch's 5 & 6.
 Alford, Robert R., & Roger Friedland. 1985. "Theoretical perspectives as modes of inquiry." Ch. 1 in
Powers of Theory: Capitalism, the State, and Democracy. Cambridge, UK: Cambridge Univ. Press.

*** Homework Assignment #3 – Working Bibliography (due Fri. 2/25) ***

Week 5 (Feb. 25) – Literature Review II

*** Discussion of Working Bibliographies (Homework Assignment #3) ***

Ch.2 Literature review (review)

Review of the literature

Proposed study

Practicalities (review)

RECOMMENDED:

Bui, ch 3, "Using the Literature to Research Your Problem" (review)

Bui, ch 6, "How to Write Chapter Two, Literature Review" (review)

*** Homework Assignment #4 – Ch.2 Literature Review (due Fri. 3/4) ***

Week 6 (Mar. 4) – Research Workshop #2

*** Debrief: Ch.2 Literature Review (Homework Assignment #4) ***

Week 7 (Mar. 11) – Research Methods I

*** Check-in on overall progress with thesis research projects ***

Including update on formation/ status of Steering Committee, etc.

Research stages (review)

Overview of research methods (review)

Quantitative (multivariate) methods

Qualitative (interpretive) methods

Using available data

Multimethod and applied research methods

Ch.3 Research methods

Proposed method(s) for data collection

Justification for this/ these selected method(s)

Limitations of proposed method(s)

Measures to be taken to address/ mitigate these limitations

Proposed procedures for data coding, entry and management

Proposed procedures for data interpretation and analysis

RECOMMENDED:

Bui, ch 7, "How to Write Chapter Three, Methods"

OTHER:

Davies, Martin, & Nathan Hughes. 2014. *Doing a Successful Research Project Using Qualitative or Quantitative Methods*, 2nd ed. Palgrave.

Fahy, Frances, & Henrike Rau, eds. 2013. *Methods of Sustainability Research in the Social Sciences*. Los Angeles: Sage.

Newing, Helen. 2011. *Conducting Research in Conservation: Social Science Methods and Practice*. New York: Routledge.

Ragin, Charles C. 2011. *Constructing Social Research: The Unity and Diversity of Method*. Thousand Oaks, CA: Sage.

Singleton, Royce A. Jr., and Bruce C. Straits. 2010. *Approaches to Social Research*, 5th ed. New York: Oxford Univ. Press.

*** Homework Assignment #5 – Research methods outline (due Fri. 3/25) ***

SPRING BREAK (Mar. 13-20)

Week 8 (Mar. 25) – Research Workshop #3

*** Discussion of research methods outline (Homework Assignment #5) ***

Why choose that/ those particular method(s)? Implications of this choice?

Ready for next steps in research project development?

Any changes in research question?

Any questions? challenges? problems?

Reflections on the research project as a whole

*** Homework Assignment #6 – Ch.3 Research Methods (due Fri. 4/1) ***

Week 9 (Apr. 1) – Human Subjects Protection

*** Debrief: Ch.3 Research Methods (Homework Assignment #6) ***

Foundations (review)

Who are 'human subjects'? (definition)

Why do they need protection, and from whom?

How are they protected, and by whom?

Federal guidelines and regulations, incl. the Belmont Report

Professional codes of conduct

SU/ ESF Institutional Review Board procedures

Applications

RECOMMENDED:

Bui, ch 4, "Conducting Ethical Research"

OTHER:

Singleton & Straits, *Approaches to Social Research*, ch 3

National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. 1979.

"The Belmont Report. Ethical Principles and Guidelines for the Protection of Human Subjects of Research." National Institutes of Health, April 18.

*** Homework Assignment #7 – Human Subjects Protection (due Fri. 4/8) ***

Week 10 (Apr. 8) – Research Nuts & Bolts

*** Discussion of human subjects protection (Homework Assignment #7) ***

Resource requirements & provision

Projected expenses/ overview of options

Staffing (e.g. research assistants)

Materials and equipment needed

Testing and data analysis expenses

Transportation, accommodations, other expenses

Proposed budget

Projected expenses (required & optional), itemized & (sub-) totaled
Justification

Funding

Funding obtained
Funding applications pending
Additional resources utilized
Gaps and contingencies

Timeline

Checklist of approvals needed/ obtained

*** Homework Assignment #8 – Research practicalities draft (due Fri. 4/15) ***

Week 11 (Apr. 15) – Research Workshop #4

*** Discussion of research practicalities draft (Homework Assignment #8) ***

*** Homework Assignment #9 – Research Proposal draft (due Fri. 4/22) ***

+ Including draft introduction

Week 12 (Apr. 22) – Research Workshop #5

*** Debrief: Research Proposal draft (Homework Assignment #9) ***

Week 13 (Apr. 29) – Presentations**Finals Week – Finalized Research Proposals Due****NOTICES****COVID-19 protocols**

Students in this course are required to follow ESF's evolving Covid-19 protocols and restrictions. These can be found on the college website at: <https://www.esf.edu/restart/>.

Fire alarm procedures

If a fire alarm sounds, exit the building immediately to the designated area for this course. Stay together as a class, until released. Take all personal belongings with you, including electronics, backpacks, coats, and keys. Please let your instructor know in advance if you might have any special needs in case of a building evacuation. For further information, contact the ESF Division of Student Affairs, 110 Bray Hall, tel. 315.470.6660, or email studenthelp@esf.edu.

Accommodations

SUNY-ESF works with Syracuse University's Center for Disability Resources (CDR) in assisting students with learning and physical disabilities. If you think you may need accommodations in this course related to a disability, you may contact the ESF Division of Student Affairs, 110 Bray Hall, tel. 315.470.6660, or email studenthelp@esf.edu, for assistance with the process. You may also contact CDR directly via their website at <https://disabilityresources.syr.edu>; or call 315.443.4498 or email disabilityresources@syr.edu for more detailed information. CDR is responsible for coordinating disability-related academic accommodations and will work with the student to develop an access plan. Since academic accommodations may require early planning and generally are not provided retroactively, please contact ESF's Division of Student Affairs or CDR as soon as possible to begin this process.