Course Outline
EST 797, Section 01

ENVIRONMENTAL STUDIES SEMINAR: RESEARCH METHODS

David A. Sonnenfeld, with Mary B. Collins
Department of Environmental Studies

SUNY College of Environmental Science and Forestry
Spring 2019, F 9:30-10:25 am, Marshall 111

DESCRIPTION

Overview
This one-credit seminar is designed to provide instructor and peer support for graduate students developing formal proposals for their master's thesis or doctoral dissertation research, in conjunction with participants’ primary efforts with their advisor(s) (major professors) and steering committee. All MS and PhD students with a human dimensions or policy aspect to their research are welcome. MPS students working on a project that requires development of a research proposal are welcome, too. For all participants, the aim is to have a research proposal completed for approval by the students’ respective steering committees by the end of the semester, so that data collection may commence shortly thereafter.

Prerequisites
There are no formal prerequisites for this course. Prior completion of EST 603, Research Methods and Design or equivalent, is highly recommended.

Objectives
The primary objective for this seminar is completion of a formal proposal for master's thesis or PhD dissertation research. Support will be provided toward participants achieving several intermediate objectives, including:

- 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 necessary and appropriate permissions required to carry out the proposed study (e.g. steering committee, partner organization, Institutional Review Board); and
- Giving an oral presentation of the research proposal for feedback and support from seminar participants.

Additionally, we aim to help seminar participants identify and engage in the practical and interpersonal strategies necessary for successfully launching graduate research.
Requirements

- Read all required texts, in advance of the scheduled session
- 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

Expectations

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

Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Research proposal &amp; presentation</td>
<td>60%</td>
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<tr>
<td>Intermediate assignments (8)</td>
<td>25%</td>
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<tr>
<td>Attendance &amp; participation</td>
<td>15%</td>
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Communication

Office: 211B Marshall
Hrs.: TBA
E-mail: <dsonn@esf.edu>
URL: http://www.esf.edu/es/sonnenfeld

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. All of the following components should be included in the proposal: title, abstract, statement of problem/research question, justification, review of the literature, formal statement of research question, dependent and independent variables, hypotheses, research design and methods, measures for protection of human subjects, research schedule, resource requirements, budget, funding sources, bibliography.

(Week 8). Research methods (Week 9). Human subjects protections (Week 10). Research practicalities (Week 11). «Draft» research proposal, including introduction (Week 12).

Oral presentation. Present your proposal in class, 10-15 min., including questions and discussion (Weeks 13/14). (20% of assignment grade)

Completed proposal. 20 pp. maximum (double-spaced, 12 pt. Times New Roman), plus cover sheet, abstract, references, and appendices. Spelling- and grammar-checked; appropriate use of citations and references. Due at beginning of the regularly scheduled Final Exam period for this course. (80% of assignment grade)

SCHEDULE

Week 1 (Jan. 18) – Introduction (Mary Collins)

*** 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

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

OTHER:

*** Homework Assignment #1 – Research Abstract (due Fri. 1/25) ***

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

Week 2 (Jan. 25) – Research Proposals (Mary Collins)

*** 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
REQUIRED:
Bui, ch 2, "Selecting a Research Topic" (review)
Bui, ch 5, "How to Write Chapter One, Introduction"

RECOMMENDED:

*** Homework Assignment #2 – Topic reflection (due Fri. 2/1) ***

Week 3 (Feb. 1) – 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. 8) – 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
Important debates, controversies

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
Propperly citing and referencing source material

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

OTHER:

*** Homework Assignment #3 – Working Bibliography (due Fri. 2/15) ***
Week 5 (Feb. 15) – Literature Review II

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

Ch.2 Literature review (review)

Review of the literature

Proposed study

Practicalities (review)

REQUIRED:

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. 2/22) ***

Week 6 (Feb. 22) – Research Workshop #2

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

Week 7 (Mar. 1) – 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

REQUIRED:

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.


*** Homework Assignment #5 – Research methods outline (due Fri. 3/8) ***

**Week 8 (Mar. 8) – 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. 3/22) ***

**SPRING BREAK**

**Week 9 (Mar. 22) – 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**

REQUIRED:
  * Bui, ch 4, "Conducting Ethical Research"

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

*** Homework Assignment #7 – Human Subjects Protection (due Fri. 3/29) ***

**Week 10 (Mar. 29) – 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. 4/5) ***

Week 11 (Apr. 5) – Research Workshop #4

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

*** Homework Assignment #9 – Research Proposal draft (due Fri. 4/12) ***

+ Including draft introduction

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

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

Weeks 13 & 14 (Apr. 19, 26) – Presentations

Finals Week – Finalized Research Proposals Due

NOTICE

Accommodations

SUNY-ESF works closely with the Office of Disability Services (ODS) at Syracuse University in assisting students with learning and physical disabilities. If you believe that you need accommodations for a disability, you may contact the ESF Office of Student Affairs, 110 Bray Hall, tel. 315.470.6660, for assistance with the process. You may also contact ODS directly, Room 309 of 804 University Avenue, 315.443.4498, to schedule an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. To learn more about ODS, visit http://disabilityservices.syr.edu.