

Yale University
Environmental Studies Program
Senior Essay Handbook

Academic Year 2015-2016

Revised August 2015

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Introduction to the Senior Essay

Dear Environmental Studies Majors:

The senior essay project is the capstone for the Environmental Studies Major. Through your chosen concentration courses, you define an area of specialization and gain a base of knowledge, as well as core research and analytical skills. As a senior in the Environmental Studies Program, you then write a substantial piece of original research that draws on your concentration. The senior essay project allows you the opportunity to research and write a substantial in-depth treatment of an environmental topic or problem.

We hope that you will find a topic that engages your passion and also tackles a serious environmental issue. Writing your senior essay is a rewarding and also a challenging process. We encourage you to start early and to set realistic and specific goals for yourself to ensure successful completion.

John Wargo

Chair, Environmental Studies Program

Paul Sabin

Director of Undergraduate Studies,
Environmental Studies Program

Formal Requirements:

Academic Credits: Environmental Studies (EVST) seniors typically write a two-semester senior essay by enrolling in EVST 496a and EVST 496b. Single semester essays are permissible only for students completing a double major that involves writing a senior essay in another department or program. Students must have advance written permission from the EVST Director of Undergraduate Studies to complete a single semester senior essay.

Advising: Each EVST senior must have a primary senior essay advisor who provides guidance on research and writing. Your primary essay advisor should be a Yale University faculty member with disciplinary or topical expertise relevant to your senior essay topic. To find an advisor, you should consult the list of affiliated faculty posted on the EVST website under Student Resources, and then approach faculty members whose interests might overlap with yours. You are expected to meet regularly with your advisor and to keep them informed of your progress on your essay. In addition, EVST seniors should draw on the support of the faculty members leading the Senior Colloquium. EVST majors are encouraged to identify their primary advisor as early as possible, preferably by the spring of their junior year. *For further information, see "Finding an Advisor" below.*

Senior Colloquium: The Environmental Studies senior colloquium (EVST 496a/496b) provides EVST majors with a collegial venue for developing research questions and for writing, discussing and presenting portions of the senior essay. The structure of the fall class meetings systematically lays the foundation for well-written and soundly argued senior essays. The colloquium also seeks to foster community and dialogue within the EVST major relevant to students' time at Yale and following graduation.

Note: Students who write their senior essays out of sequence (spring/fall) or who write one semester senior essays bear an additional responsibility for working closely with their primary advisors and with the EVST senior essay colloquium faculty to stay on track and make steady progress.

Grading: EVST senior essays are read and graded by your primary advisor as well as by a second reader selected by the EVST program. The student and the primary senior essay advisor suggest names of possible second readers to EVST program staff. The Environmental Studies Program, not the individual students, will contact potential readers to ask one to read your senior essay. Senior essays are graded according to the senior essay evaluation criteria. These criteria reflect the key components of a successful senior essay. Both evaluation forms will be shared with the student. (If there are significant discrepancies in recommended grades and evaluations, the directors of the senior essay colloquium will assign a final letter grade.) *Please see the "Senior Essay Evaluation Criteria" and "Essay Structure and Content" for further details on evaluation criteria.*

Your first semester grade will be a temporary mark of SAT (satisfactory) or UNSAT (not satisfactory). If you meet the requirements outlined in this handbook for your first semester, you will receive a SAT; if not, you will receive an UNSAT. The SAT or UNSAT is a temporary grade and your final essay grade will be recorded for both semesters on your transcript at the end of the year. Remember, however, that many employers and graduate and professional schools will request your first semester transcripts, so it is very important to stay on schedule and earn a SAT in the first semester.

Essay Length: Clear and concise writing is a critical component of effective analysis and argument. Senior essay text therefore may not exceed 14,000 words, excluding notes and bibliography. There is no fixed minimum requirement for senior essay length. Essays are likely to vary in length depending on their methodology and subject. Predominantly historical, humanistic, or social science essays are likely to range from 10,000-14,000 words. Technical essays that rely heavily on data collection and analysis by the student, including ecological or economic models, are likely to be shorter. Typical technical essays will range from 7,500-12,500 words, often with additional data and appendices.

Abstract: Each EVST essay must include an abstract of 100-200 words in length that summarizes the senior essay and its argument. The abstract should be written with care as it may be made public on the EVST website or in the EVST newsletter. The abstract may be submitted separately from the essay as a Microsoft Word file sent electronically to studies.environment@yale.edu. **Please use the file title: Last Name, First Name, "Title" Abstract, EVST 2015.**

Submitting the Essay: Submit your senior essay in two bound paper copies to the EVST program office **no later than 4pm on Thursday, April 14, 2016.** Additionally, submit a copy of your essay as an Adobe PDF file to your advisor and to studies.environment@yale.edu no later than 4PM on Thursday, April 14, 2016. If your essay is too large to send by regular email, you can use Yale's Large File Transfer applications to submit it. Use <https://files.yale.edu> or the box.com app for large email attachments.

Please title the electronic copy of your essay as follows: Last Name, First Name_ "Essay Title" _ EVST 2015.

The Senior Essay deadline is **non-negotiable**. You need to plan ahead to make sure to have your essay completed on time. Essays submitted after the 4PM deadline will be considered as being submitted the following day. If the essay is submitted after the deadline without an excuse from your residential college dean, the essay will be penalized by one letter grade for the first day, and one half letter grade for each of the next two days. Late essays are not eligible for the departmental senior essay prize. No essay that otherwise would pass will fail due to being submitted late.

A written dean's excuse will be accepted only following a verbal conversation between the residential college dean and the EVST Director of Undergraduate Studies. Only major, incapacitating illnesses, and dire family emergencies will be considered as a legitimate cause for an extension of this deadline by your residential college dean, who must consult with the Director of Undergraduate Studies prior to issuing the excuse. Note that this differs from a regular Dean's excuse, since the Senior Essay is a yearlong project, and you are aware of the deadline as you read this handbook. Most years, no one receives a Dean's excuse.

Plan your research and writing to complete your essay in advance of the deadline. Often printer problems and other computer challenges occur in the closing stages of completing a large project. Anticipate these constraints and leave yourself time to complete your essay submission.

Components of a Successful Essay: Structure and Content

An exemplary EVST senior essay will engage a substantive research question using original research as well as secondary literature. The essay will develop and advance its argument (or hypothesis) with appropriate methods for analyzing relevant evidence or data. The essay will progress according to a logical structure, be clearly written, and use effective documentation.

A successful EVST senior essay will include the following components described below. *These essay components are not intended to outline your essay structure or internal essay sub-headings, but rather to describe key elements of your essay, regardless of its disciplinary emphasis.*

Research Question: All EVST senior essays, regardless of disciplinary emphasis, must be guided by a central research question. The research question should identify an environmental problem or issue that the student can address within the context of the senior essay.

Students are encouraged to read Wayne Booth et al, The Craft of Research, chapters 3 and 4, for guidance on defining your topic and framing a specific research question and problem. The book is available as an electronic e-book through Orbis, in hard copy in the library, or for sale in bookstores.

Thesis and Argument: Your essay must have a thesis or argument, and you should state it early in your paper. Do not wait until page 15 to tell your reader what your paper is about, and what you will argue. Your argument should permeate your entire senior essay, and the different sections of the paper should support your argument by extending or deepening your analysis. Use strong topic sentences and introductory and concluding paragraphs, as well as clear signposting, to guide your reader through the different steps in your thinking.

Secondary Literature: Your engagement with the broader scholarly literature related to your topic is a crucial part of your essay. Your senior essay should discuss what other scholars have written about your topic and how they have thought about similar types of issues. Then distinguish or relate your work to theirs. How does your essay differ? How do you challenge or expand upon previous scholarship? Often senior essays will contribute to more than one area of scholarship. Sometimes the relevant scholarship will not directly relate to the environmental theme, but instead engage broader theoretical concerns.

Methods: While Environmental Studies is an interdisciplinary program and field of study, every senior essay still must embrace a set of methods appropriate to the research question and to the evidence used. Clearly articulate the methods that you use and apply those methods rigorously throughout the essay. Your use of the

methods should reflect your awareness of the limitations and constraints of your methodological approach.

Evidence: Your senior essay should draw on the range of primary source material that you have gathered. Each essay will differ in the sources that it uses, but every essay is expected to involve the interpretation of data, primary sources, or other evidentiary material. Integrating and synthesizing secondary sources—other scholarly writings—is not sufficient by itself. Your senior essay is an opportunity to do your own original research.

Analysis: Data, primary sources, and other evidence cannot speak for themselves. You are expected to interpret and analyze your primary sources to develop and support your senior essay’s argument. Effective analysis will handle sources skillfully, noting the sources’ limitations, drawing out their subtleties, tensions, and contradictions.

Structure: EVST senior essays do not need to follow one set structure, but they must demonstrate an internal logic and flow. You should consult with your advisor on the appropriate structure for your essay.

References and Citations: You must carefully document your research and writing. Different types of essays follow different citation formats. Humanities and social science essays should follow the Chicago Style or Modern Language Association (MLA) formats for footnotes and endnotes. Natural-science essays may use either the Chicago or MLA formats or the citation format of a scientific journal, e.g., PNAS or American Journal of Science (<http://www.ajsonline.org>).

Style: EVST essays are judged for style as well as content. Write clearly and concisely, with active verbs, strong topic sentences, and a clear introduction and conclusion. Interpret data and quotations and link them to your argument.

10 Simple Ingredients for Success

- 1. Meet regularly with your advisor.**
- 2. Set aside a specific block of time each week for your essay.**
- 3. Clarify your research question.**
- 4. Read secondary literature relevant to your topic.**
- 5. Identify a solid primary source base.**
- 6. Set manageable goals with specific deadlines.**
- 7. Outline as you go.**
- 8. Review the “Components of a Successful Essay.”**
- 9. Write!**
- 10. Finish a draft early... and then revise.**

Choosing Your Advisor

You are required to choose your advisor before your statement of intention is due in September of your senior year. When possible, the Environmental Studies Program strongly encourages you to pick out an advisor during your junior year. Having an advisor in place at an early stage will give you the opportunity to work with your advisor to finalize courses that you are taking as part of your concentration and to receive guidance for a summer research project. For many research projects conducted outside of a campus laboratory or the Yale library, the summer before the senior year is a critical time for gathering data.

Your advisor does not need to be affiliated with the Environmental Studies Program. Your advisor must be a member of the Yale faculty, however, and needs to agree to supervise your essay and to provide you with guidance and feedback along the way. If you are having difficulty finding a senior essay advisor, please speak with the EVST Director of Undergraduate Studies.

You need to find your senior essay advisor. The Environmental Studies Program does not have its own faculty and instead relies on faculty volunteers from departments and programs across the university. You are encouraged to begin identifying a senior essay advisor during your junior year, or, as soon as possible, if you are a rising senior. Enrolling in a seminar with a possible advisor is one way to establish a relationship with a potential faculty mentor. Students interested in pursuing a science-based essay are encouraged to seek opportunities for supervised research within a faculty research laboratory.

The Environmental Studies Program maintains a spreadsheet on the EVST website under Student Resources that lists many faculty with environmental interests across the university. Review this spreadsheet and identify several whose interests may overlap with yours. Visit their websites and consult their publications and course descriptions. If you think your interests may overlap, schedule a meeting to talk with the faculty member about your potential project ideas, and to hear their suggestions for possible senior essay projects.

You do not need to have a fully formed senior essay topic when you meet with a prospective advisor. You also are encouraged to meet with more than one possible advisor to identify the best fit.

Working Effectively With Your Advisor:

Once you have identified your advisor, you are responsible for communicating with them and for jointly working to establish an effective advisor-advisee relationship. Many advisors respond to advisee requests for meetings and comments, rather than imposing a regular structure. Few faculty advisors will seek you out to check in on your progress. You are responsible for initiating and maintaining regular contact with your advisor. As you establish your relationship with your advisor, try to get a

clear understanding of your advisor's approach and expectations, and be straightforward about your expectations. Since your advisor may not be familiar with the EVST senior essay, review this handbook and its assignments and deadlines with them, and discuss the best way for you to receive substantive feedback on your progress. Make sure to share with them work that you are completing in the senior colloquium and meet with your primary advisor to discuss your progress.

Remember that EVST faculty advisors typically supervise your senior essay work above-and-beyond their regular academic commitments. Present yourself and your work in the most professional manner possible by communicating clearly and regularly, meeting deadlines, and taking responsibility for your progress on your senior essay. You also should consult regularly with the faculty leading EVST's senior colloquium.

Funding for Research During The Senior Year

The Environmental Studies Program offers some limited funding to support final data collection for senior essays during the academic year. All applications should be made according to the policy statement below.

Senior Essay Additional Funding Policy Statement: Environmental Studies senior majors in need of additional funding to support data collection or research for their senior essays must submit the following to their colloquium advisor and the program manager (sara.smileysmith@yale.edu):

- A brief written statement that describes what the student hopes to gain if awarded funding, and how this will improve their senior essay (one page maximum). This statement should also include a plan of action that details when and how funds will be used. For example, a student could explain that they will use Environmental Studies funding to travel to Washington, DC over the Fall Break to use a special library collection.
- A simple budget that details what expenses they are seeking assistance covering and identifies any other financial support they are seeking or have received to help with these costs.

Upon approval, students should submit receipts documenting the expenses incurred and the Environmental Studies Program will reimburse them. In the event that a student is not able to pay for their expenses up-front, they should request a check in advance from the Program, and provide receipts within two weeks of their expenditure to document that the funds were used on approved senior essay related expenses.

Tentative 2015-2016 Senior Essay Calendar

- Aug. 31** **Two Paragraph Research Topic and Question Summary Due**
- Sept. 2** **Register for EVST 496A or B**
- Sept. 10** **3 Slide Presentation of Essay Topic**
- Sept. 16** **Statement of Intention/Senior Essay Title Form Due**
- Oct. 20** **3 Page Senior Essay Outline Due**
- Nov. 5** **Literature Review Essay (1500-2000 words) Due**
- Dec. 3** **Oral Presentations, Round One**
- Dec. 10** **Oral Presentations, Round Two**
- Dec. 16** **20 Pages of Quality Writing Due**
- Mar. 3** **Full Draft Due by 4PM**

A draft of your senior essay is due on March 3, submitted to your primary advisor and to the EVST senior essay colloquium faculty.

April 14 Senior Essay Submission 4pm

Submit your senior essay in two bound paper copies to the EVST program office no later than **4pm on April 14**. Additionally, please submit a copy of your essay as an Adobe PDF file to your advisor and to studies.environment@yale.edu no later than 4PM on April 14. *Please see above for further information under "Submitting the Essay."*

The Senior Essay deadline is non-negotiable. Essays submitted after the 4PM deadline will be considered as being submitted on the following day.

***Environmental Studies Major
Grading Criteria for Senior Essays
Spring 2016***

Student Name:

Essay Project/Title:

Reader's Name:

Recommended Grade:

The following criteria should guide your evaluation. You may address these issues in one combined evaluation, or discuss them separately. Student projects typically reflect two semesters of research and writing. Thank you for taking the time to offer your thoughtful comments and critique.

1. *Clarity of Research Question:* Does the question include or imply a causal relation, or does it clearly attempt to explain something about human behavior or environmental conditions? Is a theory presented, with plausible hypotheses?
2. *Literature Review and Secondary Works:* Is the context of the research question discussed historically, or by reference to other important previous research in the area?
3. *Evidence and Analyses:* Are research methods clearly described? Are they appropriate for the question? What is the quality of evidence or data used to address the research question? Are the analyses of evidence thorough and appropriate for the research question?
4. *Organization and Style:* Is the paper logically organized? Does it progress in a coherent manner? Is the essay clearly written? Is it free from grammatical and spelling errors?
5. *General Appraisal and Criticism:*
6. *Publishable or Prize Worthy?* In your judgment, should the essay be considered for the Environmental Studies Program's Gaylord Donnelley prize, which honors an original essay of truly exceptional quality? Is it publishable, or could it be with modifications?