

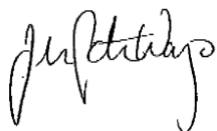


Yale College Environmental Studies
Class of 2021
Senior Essay Handbook

Dear Environmental Studies Majors:

The senior essay project is the capstone for Environmental Studies Majors in both the BA and BS Programs. 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 an Environmental Studies senior, 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
Yale College Environmental Studies



Michael Fotos
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Formal Requirements

Academic Credits: Environmental Studies (EVST) seniors in the BS track typically write a two semester senior essay by enrolling in EVST 496a and EVST 496b, the Senior Colloquium. Two term essays are required for distinction in the major in the BS track.

For the B.A. degree, students most often complete one term of EVST 496, in either the fall or spring semester of their senior year. Students writing the one-term essay in the BA track must also complete an additional advanced seminar in the environment. Two-term senior research projects in the BA track require the permission of the DUS.

Single semester essays are permissible also for students completing a double major that involves writing a senior essay in another department or program with permission of the DUS and subject to Yale College academic regulations governing completion of two majors.

Advising: Each EVST senior must have a primary senior essay advisor who provides guidance on the subject or substance of your research and what qualifies as successful, original research in your field. EVST majors are encouraged to identify their primary advisor as early as possible, preferably by the spring of their junior year. 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. *For further information, see “Finding an Advisor” below.*

You are expected to meet regularly with your advisor and to keep her or him informed of your progress on the essay. In addition, EVST seniors will have the support of faculty leading the Senior Colloquium on key matters of the research process and project execution.

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 EVST, addressing issues 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 a second reader among the EVST colloquium faculty. 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 faculty of the senior 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 in the senior year colloquium will be a temporary mark of SAT (satisfactory) or UNSAT (not satisfactory). If you meet the requirements outlined in the Colloquium syllabus, you will receive a SAT; if not, you will receive an UNSAT. The SAT or UNSAT is a temporary grade and your 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. The two semester senior essay text therefore may not exceed 14,000 words, excluding notes and bibliography. The one semester senior essay text may not exceed 7,500 words.

There is no fixed minimum requirement for senior essay length. Essays are likely to vary in length depending on methodology and subject. Predominantly historical, humanistic, or social science two semester essays are likely to range from 10,000-14,000 words and one semester essays will run 6,000-7,500 words. Technical essays that rely heavily on data collection and analysis by the student, including ecological or economic models, are likely to be shorter. Well-written technical essays will follow the format(s) and length restrictions typical of peer-reviewed journal articles, 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 will be made public on the EVST website or in the EVST newsletter. The abstract must 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, "Essay Title" Abstract, EVST 2020.**

Submitting the Essay: Submit your senior essay as an Adobe PDF file to your advisor and to studies.environment@yale.edu no later than **4PM on Friday, April 10, 2020**. If your essay is too large to send by regular email, you can use Yale's Large File Transfer applications to submit it. If you have Adobe Acrobat software, you also may be able to reduce the file size by saving the file as a "reduced size PDF." 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 2019.

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 qualify as late under the grading rubric posted in the EVST 496 a/b syllabus. 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 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 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 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 in the first couple pages of 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. You should 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. Use the techniques and templates that Graff and Birkenstein recommend in [They Say/I Say](#) to inform your review of the literature.

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, the theoretical framework, and the evidence used. Clearly describe the methods that you use and apply those methods rigorously throughout the essay.

Evidence: Your senior essay should demonstrate skillful use of high-quality evidence drawn from credible, relevant sources, including primary source material that you have gathered. Each essay will differ in the sources and data that it uses, but every essay is expected to present and interpret 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, finding patterns or empirical regularities, noting the sources' limitations, and drawing out their subtleties, tensions, and contradictions. Written analysis of key findings, evidence, or conclusions is a required element of every essay, even if your essay assumes an unconventional format such as a dramatic production, architectural design, or art installation.

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. Consultation with your advisor and colloquium faculty is required if you expect to pursue an unconventional essay format.

References and Citations: You must carefully document your research and sources according to the guidelines for avoiding plagiarism provided by the [Yale Writing Center](#). Different types of essays follow different citation formats. Humanities and social science essays should follow the Chicago Style, APA, or 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.

Style: EVST essays are judged for style as well as content. Write clearly and concisely using nouns and verbs; avoid using adjectives and adverbs. Write in the active voice using action verbs. Begin every paragraph with a strong topic sentence that plainly states the main idea of the paragraph. Begin and end each section with a clear introduction and conclusion. Interpret data and quotations and link them to your argument. [Style: The Basics of Clarity and Grace](#) by Williams and Bizup [or Colomb] is an excellent writers' guide for writing longer works such as the senior essay.

Ingredients for Success

10 Simple Ingredients for Success

1. Find the right advisor and meet regularly with your advisor.
2. Set aside a specific block of time each week to work on your essay.
3. Keep up with the deadlines in the Colloquium syllabus.
4. Read and engage the secondary literature relevant to your topic.
5. Identify a solid base of primary sources and develop and execute a strategy for exploiting them.
6. Set manageable goals with specific deadlines.
7. Outline as you go.
8. Continue to clarify your research question as you go.
9. Write!
10. Finish early... and then revise, revise again, repeat.

Choosing Your Advisor

You are required to choose your advisor before submitting your senior essay title form in October. October of senior year is way too late for finding an advisor. Yale College Environmental Studies strongly encourages you to recruit the essay 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 (and if necessary, seek funding) 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 formally affiliated with Yale College Environmental Studies. 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, preferably during the spring term of your junior year.

You must find your own senior essay advisor. 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 potentially productive advising relationship. Students interested in pursuing a science-based essay are encouraged to seek opportunities for supervised research within a faculty research laboratory.

The Yale College Environmental Studies website maintains a [list of faculty](#) with environmental interests across the university. Review this list 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 her or him and for jointly working to establish an effective advisor-advisee relationship. Many advisors prefer responding to advisee requests for meetings and comments on an as-needed basis. Other advisors may prefer setting a regular time for meeting. Few faculty advisors will seek you out to check 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 the deadlines listed in the colloquium syllabus with your advisor, and discuss the best way for you to receive substantive feedback on your work. Share the work 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.

Faculty leading EVST's senior colloquium are an additional resource committed to helping you develop a productive relationship with your primary advisor and to assuring successful completion of your essay. You should consult with them frequently, especially when their additional perspective or alternate resources might be helpful.

Funding for Research during the Senior Year

Yale College Environmental Studies 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 (linda.evenson@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 that 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.

Fall 2020 Senior Essay Calendar of Important Dates and Major Assignments

Date	Assignment
August 27	Topic statement and research question due
September 2	Topic statement and research question due, first Colloquium meeting including student presentations of same
September 9	Read senior essays from previous years
(no later than) Sept 16	Schedule and complete first essay advisor meeting
September 23	Share item of evidence and research strategy
September 30	Annotated bibliography due
(no later than) October 7	Essay advisor second meeting
October 14	Senior essay title form due
October 21	Completed essay outline due
(no later than) October 28	Essay advisor third meeting
November 4	Sample of data or evidence
November 11	Draft prospectus due for two-term essays
(no later than) November 20	Essay advisor fourth meeting
November 20	One-term essays, rough draft due
December 2	Research presentations (round one, two-term essays)
December 9	Research presentations (round two, one and two-term essays)
December 18	One-term essays due by 4pm; for two-term essays, 20 “good” pages including lit review, methods, and prospectus due
March tba	Full draft of two-term essays due
March tba	Two peer review memos due
April tba, 4pm	The completed two-term essay due
April tba, 4pm	The completed, Spring semester, one-term essay due

Note: The Colloquium mentor team will provide a detailed calendar of Spring 2021 dates and deadlines when the Yale College Academic Calendar is updated (still pending as of August 20, 2020).

Submit a copy of your completed, one or two-term essay as a Word document and Adobe PDF file to your advisor and to studies.environment@yale.edu no later than 4:00pm on the due date specified in the Spring Colloquium syllabus.

The senior essay deadline is non-negotiable. Essays submitted after the due date and time will be considered late.
Evaluation Criteria for Senior Essays in Environmental Studies

1. *Quality and Clarity of Research Question:* Is the question original, manageable, and focused on a potentially significant or under-explored aspect of the topic? (For the natural and social sciences) Does the question include or lead to the formulation of plausible, testable hypotheses concerning human, animal or plant behavior, human health, society, or environmental conditions? (For the arts and humanities) Does the question lead to or require a rigorous explanation of the human condition or human relations with nature?
2. *Literature Review and Secondary Works:* Do the literature review and secondary references adequately locate the research question in historical and scientific context, or by reference to other important previous research? Is the variety of sources referenced appropriate to the scope and discipline of the investigation?
3. *Methods, Evidence, and Analyses:* Are the research methods clearly described, appropriate to the theoretical framework, and skillfully applied to the question? What is the quality and relevance of the evidence or data presented? Is the evidence organized, analyzed, or synthesized so as to reveal insightful patterns, to confirm or falsify hypotheses, or to otherwise address the question?
4. *Organization and Style:* Is the paper logically organized, clearly and gracefully written, and free of grammatical and spelling errors? Does the author correctly and consistently use a recognized citation format? Does the author observe ethical standards for proper paraphrasing and the use and attribution of quoted material, information, or data?
5. *General Appraisal and Criticism:* Please include any further comments or observations pertinent to your evaluation of this paper.
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?

Appendix: Writing Guides and Resources

Recommended Writing Guides

- Booth et al, [The Craft of Research, Fourth Edition \(Chicago Guides to Writing, Editing, and Publishing\)](#), chapters 3 and 4. The e-book in Orbis is the 4th edition.
- Williams and Bizup, [Style: The Basics of Clarity and Grace \(5th Edition\)](#).
- Birkenstein and Graff, [They Say/I Say: The Moves That Matter in Academic Writing \(Fourth Edition\)](#).

Yale Resources

- [Yale Poorvu Center for Teaching and Learning](#)
 - [Writing Center](#), Using Sources
- [Rachel Sperling](#), Yale Librarian for Environmental Studies

Yale Essay and Writing Prizes

- [Yale Senior Essay Prizes](#)
- [Writing Center Essay Contest](#)
- [Wrexham Prize](#)
- [Environmental Studies Essay Award, the Gaylord Donnelley Prize](#)

Other Writing Resources

- [Purdue Online Writing Laboratory](#)
 - [Site map](#)
 - [Citation guides](#)
 - [Common writing assignments](#)