

Capstone Experience in Environmental Studies Major Department of Geography, Hunter College

3 credits (Core Requirement)

Part I: General Guidelines

Dear Students, we are in the process of formalizing the Capstone Experience into a regular course. We hope that doing so will make it easier to satisfy this core requirement of the major. Here, we offer a descriptive summary of the formal course proposal, which will contain all the elements that are used informally at present. We hope this handout will answer many of your questions about this Major's core requirement.

1. *General Description & Rationale:* Capstone Experience. The capstone experience is for graduating Environmental Studies majors and it consists of an independent research experience. It is only open to students with senior standing or those entering their senior year. The capstone experience is designed to provide 'real world' research (and employment when applicable) experience for Environmental Studies majors nearing graduation.

The overall goal of the Capstone Experience (CE) is to provide an introduction to a professional environmental science experience, broadly defined. The specific aim of CE is to promote the research and analytical skills of students graduating from Hunter College with a degree in Environmental Studies. An important component of this experience will entail the development of written and oral presentation skills, as well as the ability to receive and provide constructive critiques of their work and that of others. The CE is designed to provide students with the tools and experience necessary to complete an environmental research project from start to finish. Therefore it is expected that the research experience includes all aspects of a research project: definition of the research question, hypothesis generation, rationale, data gathering, analysis and interpretation, and presentation of results. The outcome of the specific project should be a research report, written as a scholarly paper or a senior thesis, which reflects the entire research work involved in the project.

The CE must be approved by the major advisor, and students are expected to develop a project with the help of a faculty mentor and write a proposal that the academic advisor will review. Upon approval of the proposal, the student will carry on the research work or perform the work specified by the research/internship program under the guidance and mentorship of the research or internship supervisor. Any Hunter College faculty might serve as the mentor/research supervisor of a CE project. For students that conduct the research for their CE outside of Hunter, the mentor of the research at the chosen location (other institutions) serves as the research supervisor and an ES Faculty or the ES faculty advisor serves as the academic supervisor. The academic supervisor is responsible for overseeing and evaluating the final report, research paper or honors thesis due upon completion of the research.

Students should consult with their individual advisor, the ES undergraduate advisor or any professor that they might wish to work with, at least a semester prior to completion of the CE.

Ideally, students will be involved in an internship, directed research or independent study, during the summer or during any part of the school year, the work of which can be developed and used into their thesis. Students should notify their academic advisor and the ES undergraduate advisor of their choice of thesis advisors.

2. Specific Objectives of the Capstone Experience

We expect that students will use this opportunity either in the form of

- a. Research for Undergraduates, Summer Fellowships or similar, experiences away from Campus during summers or those during a part of the academic year, (*)
- b. an Internship (PGEOG 498 Internship) with one of the major agencies doing environmentally related work and research, (**)
- c. Honors in ES (PGEO 490 Honors) or Individual Study in ES (GEOL 391, 392, 393 and PGEO 391, 392, 393) from an independent research project with a Hunter or/and Geography faculty supervisor (***)

(*) This can serve as the basis for Independent Research credits earned at Hunter.

(**) Hunter College only gives Internship credits for UNPAID Internships.

(***) To graduate with departmental honors, a major in ES program must be admitted to PGEO 490 and have a 3.0 cumulative GPA and a 3.5 GPA in the major. GEOL 391, 392, 393 and PGEO 391, 392, 393, also offer students the opportunity of undertaking individual research in geology and Environmental Studies.

We expect that students will use the experience to increase their understanding of the following aspects of a research work

- a. Choosing and developing a research project – conceptualizing a research question including the development and articulation of hypotheses, identifying appropriate theory, defining terms and axiomatic statements.
- b. Developing the conceptual model or perspective in the theoretical, applied, case study, and “cutting edge” research.
- c. Defining research goals: what makes a good thesis project?, how to specify project hypotheses, goals, objectives, and rationale?
- d. Developing environmental research reports – Report writing which includes the structure and elements of environmental research focusing on -the role of existing environmental literature and report components such as spatial analysis and, maps and figures. Students should be guided in this endeavor by attempting to answer questions such as “What makes this work environmental in nature?” or “how is this work related/linked/central to environmental studies?” Another way to think about this is to ask yourself, “how does this study help to solve environmental problems identified in the literature?”
- e. Developing professional presentation skills – how to convey and structure an effective public presentation including the organization of a talk, development of graphics (powerpoint, poster, etc), and speaking styles.
- f. Developing effective writing skills – how to structure a research paper or research report.

Part II: Guidelines for Internship Reports

1. *General Description*: Students can select to satisfy their CE by participating in Internships at government agencies, consumer or activist groups, business and industry and media organizations involved in environmental and energy issues. For a complete list of opportunities (regularly updated) please visit our website at

http://www.geo.hunter.cuny.edu/programs/env.stud/enviro_ba_internships.html

In addition to the general requirements for an Internship at Hunter College, the ES program requires that students opting for an Internship to satisfy their CE requirement submit a final report to the ES advisor. The evaluation of the report will be carried out by the ES advisor and/or a previously designated ES faculty and, upon approval of the report, a final grade for the Internship will be submitted by the ES advisor.

2. *Internship Report*: The report should be a comprehensive account of the all aspects of the Internship and should be structured as outlined below. The expected length is 5 to 10 pages of text (single space) and diagrams (when necessary).

- a. Title page (title of the research, name, location of Capstone (if internship) or course #)
- b. Summary/Abstract (300-500 words)
- c. Introduction – state the motivation for and purpose of Internship (research question, larger environmental problem that the question addresses and hypothesis or research claim). Briefly describe the expected outcome of work/research
- d. Research Project & Experience – specifics of the work performed, methods utilized data collection when appropriate, results or findings (what have you learned?). This section should involve analysis and discussion of results/outcomes.
- e. Relation to ES major – summarize the overall experience (repeat a little of what you wrote in the Summary/Abstract above if you need) and keep in mind that this section should be able to answer the question

How did this internship helped me become a better, more capable, more equipped (i. e., skilled) and more knowledgeable ES graduate?

Please make every possible effort to relate your Internship experience to our ES program.