GECS Senior Capstone Experience

Overview

A key component of the GECS major is the GECS Senior Capstone Experience.

The GECS Senior Capstone Experience, a requirement for all GECS majors, involves the research, planning and execution of a tangible sustainability project on or off-campus.

The Capstone Experience provides the academic space, time, and mentoring for students to integrate and synthesize the knowledge and skills obtained during the previous 3 years into a coherent framework in preparation for life after graduation.

While working in groups (the size of which will depend on the nature and scale of the project), GECS Seniors will research, design and create/implement a sustainability project or initiative on campus or in Baltimore. The project, and each student’s role within their group, should be useful and relevant for that particular student’s chosen path post-graduation.

All GECS Seniors enroll in the GECS Senior Capstone Seminar both in the Fall and Spring semesters (Parts I and II). Prerequisites include current status as a GECS Major, completion of all core courses, and an acceptable plan for completing all requirements for the major by the end of the Senior year, or approval of the Director. The seminars are designed to facilitate measured progress on the capstone projects and ensure that the final product is meaningful and exceptional.

All majors will make an oral presentation of their capstone experience to involved faculty, advisors, and fellow students at the end of their Senior year, in addition to a poster presentation for display at the annual Undergraduate Research Day and during commencement week.

Client-based Approach

To ensure that each Capstone is actually needed and useful, the capstone will incorporate a "client-based model." What this means in practice is that every project team will have a specific client to work with that will help them develop and hone their project concept and to whom they will report to on a regular basis. The final capstone product will involve a tangible deliverable for that client.

The terms "client" and "deliverable" can take on many forms, however. A client, for example, may include a local environmental non-profit organization, JHU's
Office of Sustainability, a professor whose research could translate into an applicable capstone project, etc... The deliverable may also take on various forms, including but not limited to: a detailed design proposal, the creation of a physical project (e.g. a rain garden), a comprehensive policy proposal, an educational program or behavioral change initiative, etc...

**Timeline**

Every capstone project will include the following key components:

**Fall Semester**

PROJECT SELECTION: What project will you pursue, who is your client and what is the tangible deliverable that will be created?

DEFINING THE ISSUE: What environmental issue/problem is this project hoping to address?

METHODOLOGY: What research and project implementation method(s) will be used to address the issue?

STAKEHOLDER ANALYSIS: Who is your client and what are their interests regarding this issue/project? Who are the other parties that may be affected by this project and what are their views? What is the relationship between stakeholders?

COMMUNITY ENGAGEMENT: As part of your stakeholder analysis, and throughout the course of your project, engagement with members of the community where the project is being implemented or where it may have an impact, is critical.

BACKGROUND RESEARCH: A detailed and comprehensive literature review covering the critical dimensions, theories and disciplines relevant to your project.

SCIENCE/ORIGINAL RESEARCH: A research component that tells us something new. For a social science project, this may include surveys aimed at assessing an issue, opinions, behavioral choices, etc...

STRATEGIC ACTION PLAN: A detailed plan that includes your background research, original research, results and analysis, and implementation outline/timeline. This is the most important product produced in the Fall and must be scholarly, evidence-based, and demonstrate a synthesis of the GECS courses and topics studied.
IMPLEMENTATION: For most projects, implementation of the project/deliverable for your client will begin in the Fall semester and be completed early in the Spring semester.

Spring Semester

IMPLEMENTATION: Completing the project/deliverable for your client. This phase of the Capstone must be complete before Spring Break.

COMMUNICATION: Developing a compelling and innovative way to communicate your project/results/deliverable to your client and to the public. This will include formal presentations to the Hopkins community in addition to a poster for the annual Undergraduate Research Day and commencement week.

SUSTAINABILITY/ASSESSMENT: What is the projected long-term sustainability and impact of your project? How would you assess the overall success of your project?