Environmental Studies Program
Assessment Report
Spring 2018

Historical Assessment Activities: Revision of EVST Program Learning Goals

The Environmental Studies (EVST) Program at Hendrix College is a young interdisciplinary program that continues to strive toward providing a broad and interconnected learning experience in the expansive field of the environment. As such, the *current* learning goals of the EVST program are:

(1) To understand the structure and dynamics of the natural world,
(2) To understand ways in which human beings are a part of and interact with the natural world,
(3) To understand worldviews and values that guide humans as they interact with the natural world,
(4) To explore forms of sustainable community life, and
(5) To understand methods of data collection, synthesis, interpretation and analysis acquired from natural sciences, social sciences and humanities.

The above program learning goals were adopted by the EVST faculty members in the fall of 2014 after thorough assessment of the *original* program learning goals (2002-2013) listed below:

- To understand the function of the natural world and its relation to human life,
- To explore interactions between the environment and human culture, and
- To utilize interdisciplinary approaches to environmental problems and solutions.

Both direct and indirect assessment methods were used to identify the need to revise the program learning goals. Direct assessment was completed upon mapping the program curriculum to the original learning goals (see Appendix A). Upon completing this exercise, it was determined that the original learning goals of the program were too broad, and thus too difficult to assess to a high degree. Additionally, the critical components of (1) "community," (2) "sustainability," and (3) "methodology" that are threaded throughout the EVST curriculum were not visible in the original learning goals. Additional indirect evidence is collected annually via senior surveys. A common thread found among the EVST senior survey results was the absence of "sustainable communities" and the need for additional depth in "economics." Finally, student demand observed from the creation of independent, interdisciplinary majors in sustainable development demonstrated student interest in this facet of the EVST major that was not transparent in our original learning goals. ***Thus, during the 2013/2014 academic year, the EVST program faculty revised our learning goals to the current version (see above)***.

Current Assessment Activities: Assessment of New EVST Program Learning Goals

Direct and indirect assessment of the revised EVST program learning goals has been and continues to be a priority of the EVST program faculty. Ongoing assessment efforts have focused on assessment of all revised learning goals in order to identify one specific learning goal to focus targeted assessment efforts on.

The revised program learning goals have been directly assessed by once again mapping the learning goals to the EVST curriculum, with a focus on the core course offerings (see Appendix

B). This exercise demonstrated that the core EVST curriculum appears to address each of the five new learning goals.

In order to address whether or not the students are meeting our new learning goals, the EVST program faculty members continue to work toward developing a rubric for the capstone thesis papers and presentations. Initial development of the capstone thesis rubric was intended to guide grading of the papers by a diverse representation of faculty resulting in improved consistency of technical grading. The effectiveness of the thesis rubric has been assessed over the past two years by having each member of the EVST program grade three papers with and without the rubric. Numerical evidence suggests greater precision among individual faculty grades when the new rubric is used. However, the rubric has been found to be difficult to utilize due to its complexity. Revisions of the thesis grading rubric for next academic year (AY18/19) will include simplifying the rubric and adding additional assessment of the thesis papers with respect to the new learning goals to determine whether each thesis paper demonstrates that the students are meeting the program learning goals.

The EVST capstone experience includes both the thesis paper and a 20 minute presentation of the thesis. We have developed and are continuing to use a grading rubric for the presentation that has been shown to work well and add consistency in grading across all faculty members involved. In addition to adding questions aimed at assessing whether EVST majors are achieving our new learning goals to the thesis rubric, the current presentation grading rubric will also be revised this summer to add an additional method of direct assessment of our new learning goals.

Current indirect assessment activities include exit interviews and senior surveys. Antidotal evidence via exit interviews with seniors after they have completed their capstone activities suggests that the students believe they are meeting the revised learning goals. In contrast, a survey of the fall 2017 senior class conducted at the beginning of their senior year asked students to identify one of the program learning goals that they feel they have achieved and one that they have not. At that point, all students felt that they had achieved (or will achieve in their senior year) learning goals #1-3 and #5. Thus, learning goal #4 ("to explore forms of sustainable community life") proves to be the most elusive based on this small sample of data. Unfortunately, this method of indirect assessment is limited and occurs before they have completed all major requirements. Thus, in the spring of 2018, the senior survey was revised to collect indirect evidence of whether our EVST majors believe they are achieving the program's new learning goals.

Continued assessment of the learning goals is ongoing and data planned for future assessment activities will be more comprehensive and include the following:

- Indirect assessment of program learning goals by assessing the results of additional questions on the senior survey (initiated spring 2018) that asks each student to what degree they feel they have achieved the program learning goals, and
- Direct assessment of program learning goals by revising the current capstone thesis and presentation rubrics to include faculty assessment of what degree each student is achieving the program learning goals based on their capstone performance.

Action Plan for Assessment of Thesis Capstone Rubrics:

The goals of revisions to the senior thesis rubric are two-fold. First, we hope to establish a consistent set of criteria for evaluation of the senior thesis papers that uses language consistent with the many disciplinary perspectives represented within the EVST program faculty members thus resulting in greater precision among individual graders. Second, we hope to establish a sustainable set of direct assessment measures of the EVST program learning goals. Below outlines the EVST program's action plan for assessment of the thesis capstone rubric revisions begun in the spring of 2016. Each step is notated as "complete," "current activity," or "future activity."

(1) Implement original thesis assessment form to assign grades for the senior paper (complete, until spring 2015)
(2) All EVST faculty grade the same two (mid-range in grades) thesis papers using the original thesis assessment form and assess grading precision (complete, summer 2015).
(3) Discuss criteria by which the papers should be graded and what constitutes a poor, good, or excellent paper, in order to provide a framework for a revised thesis grading rubric (complete, fall 2015).
(4) Prepare a revised senior capstone thesis grading rubric (complete, fall 2015)
(5) Alpha-test the revised senior capstone thesis grading rubric (complete, spring 2016)..
(6) Solicit feedback from EVST faculty members for further revisions of the senior capstone thesis grading rubric (complete, fall 2016).
(7) Beta-test the re-revised senior capstone thesis grading rubric (complete, spring 2017).
(8) Solicit feedback from EVST faculty members for further revisions of the senior capstone thesis grading rubric (complete, AY 2017/2018).
(9) Revise grading rubric for simplicity and to add assessment of student achievement of learning goals (current activity, summer/fall 2018).
(10) Assess effectiveness of grading precision/consistency by having each EVST faculty member appoint a grade to the same two thesis papers based on the Beta-version of the thesis grading rubric, determine precision of grading and compare to precision obtained prior to rubric revisions (future activity, spring/summer 2019).
(11) Assess the rubric's ability to gauge goal attainment (future activity).
(12) Assess effectiveness of the presentation rubric (future activity).
(13) Consider any additional revisions (future activity, fall 2019).

Appendix A
Curricular Map of Original Learning Goals
2002-2013

EVST Program mapping courses to Program Learning Goals 2013

number	course name	required?	understand the function of the natural world and its relation to human life	explore interactions between the environment and human culture, and	utilize interdisciplinary approaches to environmental problems and solutions
EVST 110	Introduction to Environmental Studies	required	3	3	3
BIO 104	Environmental Biology	required	3	3	3
CHEM 101	Chemistry of the Environment	required	3	0	0
ENGL 275/276	American Literature & Environment	req/or	0	3	2
ENGG 306	Nature Writing	req/or	0	3	3
HIST 212	Environmental History	req/or	0	3	2
POLI 235	Public Policy	required	0	1	1
POLI 365	Environmental Policy		1	2	3
PSYC 290	Statistics	req/or	0	0	0
BUSI 250	Statistics	req/or	0	0	0
Math 215	Statistics	req/or			
ANTH 335	Geographic Information Systems	req/or			
ECON 340	Environmental Economics	required	0	1	2
SOCI 375	Environmental Sociology	req/or	1	3	2
ANTH 330	Human Impact on Ancient Environments	req/or	1	3	3

RELI 270	Ecotheology: Religion, Animals, & Earth	req/or	1	3	1
PHIL 270	Environmental Philosophy	req/or	1	3	1
PHIL 315	Ethics and Relations to Friend, Kin, and Community	req/or			
EVST 497		required	0	2	3
Averages			0.875	2.0625	1.8125

Appendix B
Curricular Map of Revised Learning Goals
2014-2018

Map of EVST Program Learning Goals 2015

number	course name	required?	Understand structure and dynamics of natural world	Understand ways humans are part of and interact with natural world	Understand worldviews and values that guide humans as they interact with the natural world	Explore forms of sustainable community life	Understand methods of data collection, synthesis, interpretation and analysis acquired from natural sciences, social sciences and humanities
EVST 110	Introduction to Environmental Studies	required	3	3	2	3	2
BIO 104	Environmental Biology	required	3	3	1	2	3
CHEM 101	Chemistry of the Environment	required	3	2	0	0	3
ENGL 275/276	American Literature & Environment	req/or					
ENGC 306	Nature Writing	req/or	2	3	3	2	2
HIST 212	Environmental History	req/or	X	X	X	X	X
POLI 235	Public Policy	req/or	0	0	1	1	2
POLI 365	Environmental Policy	req/or	2	2	3	2	2
PSYC 290	Statistics	req/or	0	0	0	0	3
BUSI 250	Statistics	req/or	0	0	0	0	3
Math 215	Statistics	req/or	0	0	0	0	0
ANTH 335	Geographic Information Systems	req/or	2	2	0	0	3
ECON 340	Environmental Economics	required					

SOCI 375	Environmental Sociology	req/or	1	3	3	3	2
ANTH 330	Human Impact on Ancient Environments	req/or	2	3	3	2	2
RELI 270	Ecotheology: Religion, Animals, & Earth	req/or					
PHIL 270	Environmental Philosophy	req/or	2	3	3	3	3
PHIL 315	Ethics and Relations to Friend, Kin, and Community	req/or					
EVST 497	Senior Seminar	required	3	3	1	2	3
Averages			1.6	1.9	1.4	1.4	2.4

Appendix C
Fall 2017 Senior Seminar Survey

17/18 Academic year senior EVST majors were asked to report only one of the EVST program learning goals they feel they had already achieved (or will within their senior year) and one learning goal they fell they have not (or will not in their senior year) achieved to a high degree. Some students did not report and some gave more than one learning goal as a response. Below are the results of this brief survey.

Learning Goal	Achieved (or will achieve) to a high degree	Not (or will not have) achieved to a high degree
To understand the structure and dynamics of the natural world.	4	
To understand ways in which human beings are a part of and interact with the natural world	4	
To understand worldviews and values that guide humans as they interact with the natural world	4	
To explore forms of sustainable community life		2
To understand methods of data collection, synthesis, interpretation and analysis acquired from natural sciences, social sciences and humanities	1	1