Environmental Studies - BA
Group 4: Cycle 1 - Fall 2017 - Fall 2018

Currently status is: Report Accepted

ASSESSMENT REPORT FOR Group 4: Cycle 1 - Fall 2017 - Fall 2018

Mission Statement

The mission of the Environment and Sustainability degrees within the School of the Earth, Ocean and Environment at the University of South Carolina is to foster understanding of complex environmental processes and issues, to promote environmentally-related research and scholarship, and to prepare students to meet environmental challenges via collaborative and multidisciplinary approaches. The Bachelor of Arts degree in Environmental Studies incorporates social, economic, policy, communications and science components into a curriculum that prepares students to address environmental concerns requiring understanding of multiple social and scientific disciplines.

Goal 1.

Students majoring in Environmental Studies will demonstrate knowledge of fundamental concepts in environmental studies.

Curriculum

Students will meet this goal by successfully completing ENVR 201 and 202, which are designed to introduce students to fundamental concepts in environmental science and studies through multidisciplinary analysis of a series of increasingly complex environmental issues. Additional courses as developed, such as ENVR 331, 460, 490 or 501, may also be used to develop these concepts.

Learning Outcome 1.

Students will demonstrate their knowledge of fundamental concepts in environmental studies.

Measures and Criteria

Students will demonstrate knowledge of fundamental concepts in environmental studies by demonstrating competency at the proficiency level in an exercise in ENVR 201, 202, 460 and/or 501. To meet this competency level, at least 80% of students in Environmental Studies will be rated as Proficient or better. Students will be evaluated based on their demonstration of these concepts through a Stream Evaluation exercise. Students will be evaluated based on their ability to demonstrate these concepts in a Stream Discharge exercise in ENVR 201 or through the Stream Assessment exercise in ENVR 460. In ENVR 201, the students will be required to complete a field exercise to calculate the discharge rate of streams by measuring and calculating volumetric flux and demonstrating how the discharge is a critical element of water management and water budgets. Alternatively, students could be assessed by the Hydrograph Analysis exercise in ENVR 460 in which students are required to analyze data obtained from a field exercise measuring stream velocity, stream characteristics and discharge measurements and also analyze stream flow data over time to address the impacts on the hydrologic, ecologic and geomorphic features of the watershed.

Methods

ENVR 201, 202, and 460 are taught once per year. All students in the Environmental Studies degree programs will complete both ENVR 201 and 202 and a number of our upper level students will select to complete ENVR 460 and/or 501. Therefore, approximately 40 to 60 students will take ENVR 201 and 202 on an annual basis and up to 30 students may take ENVR 460 or 501. Data from a specific laboratory exercise, which would demonstrate knowledge of fundamental concepts, will be requested from the instructor by the undergraduate director at the end of each year. Faculty providing the data will be asked to provide a table detailing the proficiency with which the students completed the exercise. Such data may include: the total number of students, the level of proficiency (mastery, excellence, proficiency, competency or not proficient) of students and the percentage of students in each category. Several laboratory exercises incorporate the fundamental concepts, but these exercises may vary on a year by year basis as new exercises are developed. We anticipate, however, that similar stream related exercises will be reviewed annually to evaluate the students' knowledge of such fundamental concepts. Each year's results will be kept on file by the Undergraduate Program Administrator and the results of the assessment will be shared

with the Undergraduate Committee for Environmental degrees. The committee will review the assessment data and make recommendations to the faculty as appropriate.

Results

In ENVR 201 in Fall 2017, 19 Environmental Studies students were in the class of 45 students. 19 Environmental Studies students completed a field laboratory exercise to calculate the discharge rate of streams by measuring and calculating volumetric flux and demonstrating how the discharge is a critical element of water management and water budgets. The results of this exercise demonstrating their knowledge of fundamental concepts in environmental sciences indicate the following:

ENVS (Studies) Students enrolled Spring 2017:	Mastery	Excellent	Proficient	Competent	Not Proficient
Number of students	15	3	1	0	0
percentage of students	78.9	15.8	5.3	0.0	0.0
Cumulative %	78.9	94.7	100.0	100.0	100.0

Use of Results

In ENVR 201 in Fall 2017, 100% of the students were at a minimum of the Proficiency level of demonstrating their knowledge of fundamental concepts in environmental sciences which exceeded our goal of at least 80% of students rated as Proficient or better Reviewing this data with time will allow us to continue to evaluate our students and strive for increased percentages of our students at the proficiency or greater level of understanding. In prior years, our results have not been as strong, therefore, the Undergraduate committee will continue to monitor and assess.

Goal 2.

Students majoring in Environmental Studies will be able to utilize information from more than one discipline related to environmental studies and be able to synthesize that information to analyze interdisciplinary environmental problems.

Curriculum

Students will utilize and synthesize information from courses which are interdisciplinary and which require analysis of environmental concerns such as from our major core courses including: BIOL 301, ENVR 548 {ECON 548}, ENGL 434, GEOG 363, HIST 448, ENVR 322 {PHIL 322}, POLI 477 or POLI 478.

Learning Outcome 1.

Students will be able to utilize information from more than one discipline related to environmental studies, and be able to synthesize that information to analyze interdisciplinary environmental problems.

Measures and Criteria

We expet that 80% of the students will be able to demonstrate that they are proficient at developing either a research plan that will include all of the necessary components, such as presenting a hypothesis, outlining methodology, discussing data or research evaluation, and synthesis of the data to form a conclusion or proficient at constructing a well written policy brief which includes the necessary components such as background, objectives, methodology, data or research discussion and evaluation to form a conclusion. Students will be judged based on a mastery, excellence, proficiency, competency or not proficient.

Methods

Approximately 50 to 70 students will take ENVR 590 on an annual basis. Data will be requested from the instructor by the undergraduate director at the end of each year. The data requested on student research plans or policy briefs will include an evaluation of whether students are able to form an appropriate research plan/policy brief and identify sources of error in the resulting data or analyses . Faculty providing the data

will be asked to provide a table detailing the proficiency with which the students developed the plan. Such data may include: the total number of students, the level of proficiency (mastery, excellence, proficiency, competency or not proficient) of students and the percentage of students in each category. Each year's results will be kept on file by the Undergraduate Director or Program Coordinator and the results of the assessment will be shared with the Undergraduate Committee for Environmental degrees. The committee will review the assessment data and make recommendations to the faculty as appropriate.

Results

In Fall 2018, 24 students were enrolled in ENVR 590 and 13 of them were Environmental Studies majors who completed a research plan. The results of the assessment of their research plans were follows:

	Mastery	Excellent	Proficient	Competent	Not Proficient
Total # students	0	6	7	0	0
% of students	0.0	46.2	53.8	0.0	0.0
Cumulative %	0.0	46.2	100.0	100.0	100.0

Use of Results

100% of the students were at a minimum of Proficiency level of being able to form an appropriate research plan and identify sources of error in the resulting data or analyses. Approximately one-half were assessed as excellent and the other one-half as Proficient; none were assessed to have mastery of this learning outcome. However, 100% at Proficiency or above is very encouraging and exceeds our goal of 80% at the Proficient level. Reviewing this data with time will allow us to determine whether this is indicative of general student performance and the undergraduate committee and program faculty will continue to evaluate our students and strive for increased percentages of our students at the mastery and excellence level of understanding.

Goal 3.

Students majoring Environmental Studies will demonstrate effective written and oral skills in communicating about environmental issues.

Curriculum

Students will learn effective communication skills beginning in ENVR 201, 202; continue to develop those skills throughout the core courses; and refine those skills in other major courses such as ENVR 590, a senior capstone course that includes a written report and oral presentation, GEOL 560 a seminar class including written reports and oral presentations, ENVR 460 a field research course requiring a written research proposal and an oral presentation and others as appropriate.

Learning Outcome 1.

Students will demonstrate effective writing skills.

Measures and Criteria

We expect that 80% of the students will be able to demonstrate that they are proficient at effectively communicating through a written report. The student should be able to develop the topic and discussion through the proper use of grammar and writing style, as well as present an effective introduction, discussion and conclusion. Students will be judged based on a demonstration of effort at the mastery, excellence, proficiency, competency or not proficient level

Methods

Approximately 50 to 70 students will take ENVR 590 on an annual basis; 25 to 35 per semester. Data will be requested from each instructor by the Undergraduate Director at the end of each year. The data requested on effective written communication will result from the final class research paper that is submitted to the instructor at the end of the semester. The research paper (or research report) assessment will include elements a review of the written content, organization, style and diction. Faculty will provide a table detailing the proficiency with which the students can effectively communicate through the written final research paper. Such data may include: the total number of students, the level of proficiency (mastery, excellence, proficiency, competency or not proficient) of students and the percentage of students in each category. Each year's results will be kept on file by the Undergraduate Director or Program Coordinator and the results of the assessment will be shared with the Undergraduate Committee for Environmental degrees.

The committee will review the assessment data and make recommendations to the faculty as appropriate.

Results

In Spring 2018, 38 students were enrolled in ENVR 590 and 13 of them were Environmental Studies majors who completed a research paper or report. The results of the assessment of their analytical writing skills are as follows:

	Analytical Writing Skills				
ENVS (Studies) Students enrolled Sp 2018	Mastery	Excellent	Proficient	Competent	Not Proficient
Total # students	3	3	5	2	0
% of students	23.1	23.1	38.5	15.4	0.0
Cumulative %	23.1	46.2	84.6	100.0	100.0

In Fall 2018, 24 students were enrolled in ENVR 590 and 12 of them were Environmental Studies majors who completed a research paper or report. The results of the assessment of their analytical writing skills are as follows:

	Analytical Writing Skills				
	Mastery	Excellent	Proficient	Competent	Not Proficient
Total # students	0	6	6	0	0
% of students	0.0	50.0	50.0	0.0	0.0
Cumulative %	0.0	50.0	100.0	100.0	100.0

Use of Results

Of the students in ENVR 590, in Spring 2018 and Fall 2018, an average of 92.3% of students were assessed as Proficient, and 100% were evaluated at the Competency level or above. This exceeds our goal of 80% of the students will be able to demonstrate that they are proficient at effectively communicating through a written report. In as much as students in this course are usually seniors, we are pleased with the writing ability demonstrated by the students in this class. Although there was a disparity between the two classes, both classes exceeded our goal of 80% at the Proficiency level or above. The Undergraduate Committee and program faculty will continue to evaluate our students and strive for continued higher percentages of our students at the proficiency or greater level of effective written communication.

Learning Outcome 2.

Students will demonstrate effective oral communication skills.

Measures and Criteria

We expect that 80% of the students will be able to demonstrate that they are proficient at effectively making an oral presentation. The student should be able to introduce and discuss the topic using proper grammar, use visual aids as necessary to develop the topic and present an effective introduction, discussion and conclusion. Students will be judged based on a demonstration of effort at the mastery, excellence, proficiency, competency or not proficient level.

Methods

Approximately 50 to 70 students will take ENVR 590 on an annual basis; 25 to 35 per semester. Data will be requested from each instructor by the Undergraduate Director at the end of each year. The data requested on strong and effective oral communication will result from the oral presentation of the student's research at the end of the semester. The student presentation will be assessed on content organization, clarity of visual aids and diction (word choice and enunciation). Faculty will provide a table detailing the proficiency of the students' oral communication skills based on this presentation. Such data may include: the total number of students, the level of proficiency (mastery, excellence, proficiency, competency or not proficient) of students and the percentage of students in each category. Each year's results will be kept on file by the Undergraduate Director or Program Coordinator and the results of the assessment will be shared

with the Undergraduate Committee for Environmental degrees. The committee will review the assessment data and make recommendations to the faculty as appropriate.

Results

In Spring 2018, 38 students were enrolled in ENVR 590 and 13 of them were Environmental Studies majors who completed an oral presentation of their semester research. The results of the assessment of the students' oral communication skills are as follows:

	Oral Communication Skills				
ENVS (Studies) Students enrolled Sp 2018	Mastery	Excellent	Proficient	Competent	Not Proficient
Total # students	11	2	0	0	0
% of students	84.6	15.4	0.0	0.0	0.0
Cumulative %	84.6	100.0	100.0	100.0	100.0

In Fall 2018, 24 students were enrolled in ENVR 590 and 12 of them were Environmental Studies majors who completed an oral presentation of their semester research. The results of the assessment of the students' oral communication skills are as follows:

	Oral Communication Skills				
	Mastery	Excellent	Proficient	Competent	Not Proficient
Total # students	1	6	6	0	0
% of students	7.7	46.2	46.2	0.0	0.0
Cumulative %	7.7	53.8	100.0	100.0	100.0

Use of Results

Of the students in ENVR 590 in Spring 2018 and Fall 2018, 100% of students were assessed as Proficient. This exceeds our goal of 80% of the students will be able to demonstrate that they are proficient at effectively communicating orally. In as much as students in this course are usually seniors, we are pleased with the oral communication skills demonstrated by the students in this class. Although there may not be data to support, several faculty have seen an increase in our student's oral communication skills since the Carolina Core overlay requirement of Persuasive Communication was instituted. The Undergraduate Committee and program faculty will continue to evaluate our students and strive for continued improvement of our student's oral communication skills.