GEC Learning Outcomes (GLOs) Assessment: Civic Engagement

Assessment Type: GEC **Year/Term:** AY19

Course: BIOL 211 (Labs)

Learning Outcome: Civic Engagement

Assessment Method/Tool: Program CE Rubric (aligned with GEC Rubric for CW)

Measurement Scale: 3-1

Sample Size: 72

	Proficient (# of students|%)		Adequate (# of students|%)		Developing (# of students|%)	
Engages in conservation activities involving the wider regional community.	23	32%	40	55%	9	13%
Applies scientific inquiry to conservation activities.	39	54%	29	41%	4	7%
Effectively evaluates research & field experience to explore and analyze field experiences.	56	78%	12	17%	4	5%
Evaluates critically research & field experience to suggest sound approaches to conservation.	45	63%	18	25%	9	13%
Means % (based on 72 student sample size)		56%		34%		10%

Benchmark: **85%** Institutional benchmark goal for median percentage of students to meet "Proficient" or "Adequate" levels in the GEC

% Achieving Benchmark: **90%** percentage of students meeting "Adequate" or "Proficient" levels

Closing the Loop:

1) Summarize the results. Below are the questions we asked the students for this assessment activity (Questions 2 -5 were used for assessment purposes, the first question was just to see if the students enjoyed the field trips). Our Civic Engagement assessment was based on 2 field trips to Ladd Marsh Wildlife Area. Field trip 1 was a walk about, history of the area and a discussion of the pathway treated wastewater uses as it travels through the Marsh. Field trip 2 was used to sample macroinvertebrates from one of 3 ponds within Ladd Marsh. Each pond differs in the amount of treated wastewater it contains. We then spent the next 2 lab periods (a total of 6 hours) leading the students through a detailed analysis of the data collected and discussion of the results. Once all data was complied, students wrote a research paper on their findings.

We are quite happy with our assessment results. Students scored 56% (mean) in the Proficient category and 34.5% (mean) in the Adequate category. Only a small percentage (9%-mean) was in the Developing category.

2) Account for Results

A) Strengths:

Account for why students did well: We feel spending 4 weeks working with the students helped them understand the importance of the conservation work being done at Ladd Marsh. The 2 field trips provide the insights to the area. The research paper allowed them to think about the data and make connections. The assessment assignment took place at the last lab period of the term after the students received feedback from their research papers.

B) Challenges:

Account for any dips is performance, even if meeting the Target: The few students that scored low did not address the questions or gave very poor one-word responses. The Biology Program has discussed making the assessment worth some points to their final grade. This may encourage the few students that did not take it seriously to take the assessment activity seriously.

Action Plan (Academic Program):

Recommendations for improvement: We are quite happy with our rubric, the questions we developed and are considering using this assignment as a way of evaluating us (the Biology faculty) who are teaching the BIOL 211 labs.

Are Civic Engagement opportunities sequenced through the program curriculum, from the 100- through the 400-levels so that students can build these skills: All Biology students take CHEM 206 lab, which has a Civic Engagement component. Students return to Ladd Marsh during Spring term to preform water chemistry analysis on the ponds they sampled macroinvertebrates in BIOL 211 lab Ecological concentration students take BIOL 320 (Ornithology) and BIOL 415 (Forest Ecology) which each have a Civic Engagement component. In Ornithology, the students work at the Ladd Marsh Bird Festival assisting children in receiving their Junior Birder Badge. In Forest Ecology, students assess Pileated Woodpecker use of snags at MERA.

Include a commitment to sharing the results of this assessment with all program faculty and including the results in your annual program Review. All data has been reviewed by Biology faculty.

AY20 Civic Engagement Improvement Plan Recommendation

(Office of the Vice Provost for Academic Quality)

BIOL's approach to Civic Engagement for General Education should be used as a model for all programs in terms of effective assignment design and sequencing of steps, with a clear, succinct, insightful analysis of results, indicating how the General Education Civic Engagement outcome aligns well with the program's Civic Engagement outcome. Especially impressive is the way Civic Engagement is revisited throughout the curriculum.

The AY20 BIOL Gen Ed Civic Engagement Improvement Plan: The program should follow through on the suggestion above to address the problem of cursory student performance in civic engagement assignments by adding point values to those assignments. The approach should be reviewed at the program level. The AY20 Gen Ed CE Improvement Plan should report on the results of this effort and provide data on a course where the improvements have been operationalized.