

GEC Learning Outcomes (GLOs) Assessment Critical Thinking

Assessment Type: GEC

Year/Term: AY18

Course: BOT 202

Learning Outcome: Critical Thinking

Assessment Method/Tool: Common Rubric-EPCC

Measurement Scale: 3-1

Sample Size: 4

	Proficient (# of students %)		Adequate (# of students %)		Developing (# of students %)	
Identifies and explains Issues	3	75%	1	25%	0	0%
Recognizes contexts and assumptions	4	100%	0	0%	0	0%
Acknowledges multiple perspectives	3	75%	1	25%	0	0%
Effectively evaluates evidence to reach conclusions	3	75%	1	25%	0	0%
Median % (based on 4 student sample size)		88%		22%		0%

Benchmark:

85%

Institutional benchmark goal for median percentage of students to meet “Proficient” or “Adequate” levels in the GEC

Median % Achieving Benchmark:

100%

median percentage of students meeting “Adequate” or “Proficient” levels

Closing the Loop:

100% of students enrolled in BOT 202 during winter term 2018, performed at Adequate/Proficient on the Critical Thinking assessment. This outcome exceeds the institutional benchmark of 85%. While it is difficult to reach sound conclusions based on an n of 4, we can trace some of their success to the active learning approach used in the class.

Students performed well on all of the criteria, especially “Recognizes contexts and assumptions.” The 2018 winter term class was small and became a close-knit learning community. Many years ago, I designed this course around an active learning format, with each class session lasting for 1 hour and 50 minutes, instead of the usual 50-minute time allotment for lectures with a weekly lab. Instead of separate lecture and lab days, every class session, three times per week, combines multiple learning formats: lecture, discussion, lab experiences, and journal writing. Students this term really enjoyed class discussions, often initiating spontaneous discussions around topics of interest to them. My job was to drive the conversation back to my planned topic of the day, which typically was some aspect of plant evolution.

To prepare for the outcome assignment, I gave the students a practice critical thinking assessment prompt during the class session prior to the actual assessment. I explained the four criteria for assessment and we discussed everyone’s ideas about the prompt together. On the actual assessment day, I gave them a new prompt and they wrote their responses independently in class.

Given the success of students on this assessment, I do not plan any changes to the course format or content.

Action Plan:

This benchmark is relatively easy to meet in small classes where discussions can be free ranging. It is much harder to establish a learning community that would successfully address the rubric in large, lecture-format classes that are more diverse in student backgrounds and academic interests.

However, program faculty should discuss the approach used in this class to determine if key pieces could be applied to larger classes.