

## Assessment Plan: GELOs in Biology Courses

### PLNU General Education course (BIO 104)

**Learning Outcome:** GELO 1c. Information Literacy: Students will be able to access and cite information as well as evaluate the logic, validity, and relevance of information from a variety of sources. This outcome will be measured yearly via direct, summative assessment.

**Outcome Measure:** Signature Assignment: Multiple choice questions on the final exam taken from the Test of Scientific Literacy Skills (TOSLS). The whole class was assessed.

**Criteria for Success:** At least 60% of the students will answer the questions correctly (an average of 60% for all of the questions). 60% was chosen since this is an introductory course for non-science majors. Questions from the TOSLS were chosen that specifically addressed information literacy and were appropriate for the content of each course.

### Longitudinal Data:

Class	SUMMER, 2018		SUMMER, 2017	
	n	% of Students Answering TOSLS Questions Correctly (Ave + S.D.)	n	% of Students Answering TOSLS Questions Correctly (Ave + S.D.)
BIO104	22	79 $\pm$ 12	21	81 $\pm$ 13

**Conclusions Drawn from Data:** The students in BIO104 are meeting the criteria for information literacy.

**Changes to be Made Based on Data:** We will continue to use these questions for summative assessment in our GE courses.

**Rubric:** Gormally, C., Brickman, P., and Lutz, M. "Developing a Test of Scientific Literacy Skills (TOSLS): Measuring Undergraduates' Evaluation of Scientific Information and Arguments." C.B. E. Life Science Education 11(4): 364–377 (2012).

BIO104: Questions 5, 9, 10, 17, 22, 27