Biology

FELOs in Biology Courses, Sp2024

A. PLNU General Education course (BIO 1004)

FELO 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 (average 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 addressed information literacy and were appropriate for course content.

Longitudinal Data:

	FALL, 2022		FALL, 2019		SUMMER, 2019	
Class	**n**	**% of Students Answering TOSLS Questions Correctly (Ave + S.D.)**	**n**	**% of Students Answering TOSLS Questions Correctly (Ave + S.D.)**	**n**	**% of Students Answering TOSLS Questions Correctly (Ave + S.D.)**
BIO1004	23	82 ± 20	43	83 ± 15	16	88 ± 13

Conclusions Drawn from Data: The students in BIO1004 were not assessed in Fall, 2023-24, due to an adjunct teaching the class. Previously, however, these students were meeting the criteria for information literacy. (These data were not collected in 2020 - 2021 due to COVID.)

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).

BIO1004: Questions 5, 9, 10, 17, 22, 27