

2022-23 General Education Learning Outcome Report – Natural Science

Definition: Students will be able to apply scientific terminology, and investigate and draw conclusions about the natural world.

Instructor name	Sara Plaggemeyer
Date	07/06/2023
Course (e.g., CS 101)	SC 244 Environmental Science
Number of students assessed (not the # in the class)	38/97 students completed the assignment
Semester and year assessed (e.g., fall 2023)	F19 S20 Su20 F20 S21 F21 S22 F22 S23
Identify the specific graded summative assessment(s)	Nuclear energy assignment

Fill in the columns for the indicators that can be assessed using the specific graded summative assessment identified above (enter “NA” on the other rows)

General education indicators: <i>Students were able to...</i>	Results of assessment: For each indicator, indicate the % or # of students who performed below, at, or above expected levels (only include students whose work you assessed)			Next steps / reflections: For each indicator, write reflections on anything that stood out for you (e.g., changes in teaching, learning, or assessment strategies; areas for student growth; areas where students excelled; proposed curriculum changes).
	% or # below expected level (D/F grade)	% or # at expected level (C grade)	% or # above expected level (A/B grade)	
1. Apply scientific terminology.	NA	NA	NA	NA
2. Apply the scientific method to explore the natural world.	NA	NA	NA	NA

General education indicators: <i>Students were able to...</i>	Results of assessment: For each indicator, indicate the % or # of students who performed below, at, or above expected levels (only include students whose work you assessed)			Next steps / reflections: For each indicator, write reflections on anything that stood out for you (e.g., changes in teaching, learning, or assessment strategies; areas for student growth; areas where students excelled; proposed curriculum changes).
	% or # below expected level (D/F grade)	% or # at expected level (C grade)	% or # above expected level (A/B grade)	
3. Draw conclusions about the natural world.	38%	48%	14%	<p>Students that submitted the assignment, for the most part did well on communicating their interpretations and conclusions on the topic of nuclear energy, those with an F as a grade did not turn in anything. Students taking the course as a hybrid course did best, most likely because of the in class discussion (their turned in assignments reflected what they brought up in class or they were graded on their participation in class and being able to address the requirements of the assignments. Student's did best if given the choice of completing the assignment verbally or written.</p> <p>Next steps: Improve format for students if class is completely online, recommend this class be a hybrid course. Student participation in the course was important, the grade really depended on if the student took part in the course, 72% of the F grades were students who stopped participating in the course by the 4th week. Maybe presenting data on grade differences of students that participated in the course vs. those who stopped the 4th week may encourage the students to continue because most students that kept participating the whole semester passed. Future assessments that may need to be measured to get a better idea on participation is one that allows an assessment of if the lack of participation is course based, or student based- Are we seeing the same students not participating in their other courses?</p> <p>This assignment is only 1 assignment in a module on energy (fossil fuels, nuclear, and renewable energies). A modification to the module may be an option for improving the assignment/module.</p>
Teaching/learning success: Explain any teaching or learning strategies you found to be effective for students to learn these general education indicators.				The course during this time was taught both either online completely or hybrid. Students in Hybrid classes did best on this assignment. Students in semesters where they submit their answers verbally or written (chose the format they preferred) did better.