

GEN ED ASSESSMENT: SELECTING ASSIGNMENTS, USING CANVAS RUBRICS

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OVERVIEW

- Goals of Gen Ed assessment
- Instructor responsibilities
- Example: Natural Scientific Inquiry (NSI) learning outcomes and rubric
- Selecting assignments
- Using the Gen Ed rubric in Canvas
- Non-rubric scoring
- Where to get help

WSU'S CONTEXT FOR GEN ED ASSESSMENT

- See the General Education Oversight Committee's [email](#) or the [Gen Ed assessment website](#) for more information



Associate Provost for
Academic Programs

From the GEOC Assessment Subcommittee:

Dear Instructors and Departments Teaching General Education Courses:

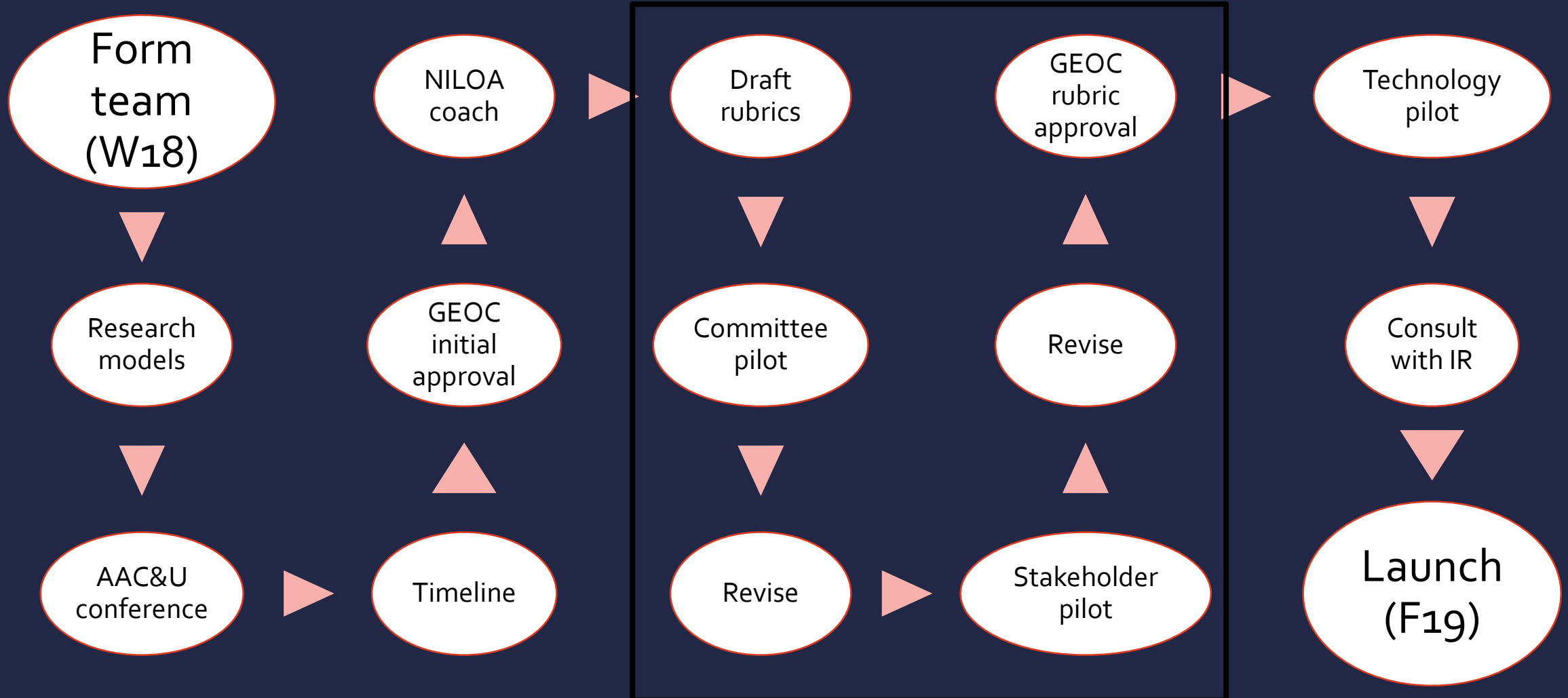
You are receiving this message because you or your department offers courses designated as General Education (Gen Ed) at WSU. Thank you for offering Gen Ed courses to our students! The purpose of this message is to review responsibilities associated with Gen Ed and increase awareness of the support available to you.

What are the Overall Goals of the Gen Ed Program?

The Gen Ed program provides important foundational skills that are the basis for success in college and future careers. It also serves to introduce students to different perspectives and methodologies that shape the acquisition of knowledge.

How Are Courses Approved for Gen Ed?

INITIAL DEVELOPMENT OF GEN ED ASSESSMENT



INSTRUCTOR RESPONSIBILITIES

Design syllabus

- Incorporate:
 - Course description
 - Gen Ed learning outcomes and rubric

Select assignment(s)

- 1 or more
- Which best elicit evidence of each Gen Ed LO?

Score with Gen Ed rubric

- Used as assessment data, separate from grade for student
- Canvas submissions preferred

SOME DEFINITIONS

- **Learning outcomes** are statements that describe what students should know or be able to do.
 - Gen Ed outcomes are set by the General Education Oversight Committee (GEOC).
- **Rubrics** are scoring tools that describe different levels of performance on each learning outcome.
- **Course assignments** are activities that elicit student performance, such as tests, projects, presentations, homework, and more.
 - A **Canvas assignment** is a digital placeholder for your course assignment.

EXAMPLE: NATURAL SCIENTIFIC INQUIRY (NSI) LEARNING OUTCOMES

- LO₁: Explain natural phenomena using scientific concepts, theories, and/or principles.
- LO₂: Describe the process of scientific inquiry.
- LO₃: Analyze historical or contemporary societal subjects using scientific concepts and principles.
- LO₄: (Lab courses only) Apply the scientific method to evaluate data.

A glossary on the rubric defines key terminology.

Expectations for student performance on each outcome can differ, so the Gen Ed rubric defines levels of performance and sets a target level relevant for assignment selection.

Learning Outcome	High	Moderate	Low	Little to No Evidence
LO1: Explain natural phenomena using scientific concepts, theories, and/or principles.	<i>Applies</i> contemporary scientific concepts, theories, and/or principles to explain natural phenomena.	<i>Correctly describes</i> natural phenomena using contemporary scientific concepts, theories, and/or principles.	<i>Identifies</i> natural phenomena.	<i>Unable to identify</i> natural phenomena. <div style="border: 1px solid blue; padding: 5px; margin-top: 10px;"> A "not submitted" column is also included in your Canvas rubric. </div>
LO2: Describe the process of scientific inquiry.	Articulates how scientific inquiry can be used to make valid inferences about patterns, relationships, or themes involving natural phenomena.	Discriminates between valid and invalid inferences using basic concepts and methods of scientific inquiry.	Identifies basic concepts or methods of scientific inquiry.	Unable to identify or define basic concepts of scientific inquiry.
LO3: Analyze historical or contemporary societal subjects using scientific concepts and principles.	Applies scientific perspectives to evaluate historical or contemporary societal subjects.	Describes scientific concepts and principles germane to a historical or contemporary societal subject.	Identifies a historical or contemporary societal subject related to scientific concepts and principles.	Unable to identify or describe historical or contemporary societal subjects related to scientific concepts or principles.
LO4: (Lab courses only) Apply the scientific method to evaluate data.	Interprets the meaning of data collected via the scientific method and articulates its relevance to stated hypotheses.	Describes data collected via the scientific method using scientific theory, concepts, or principles.	Identifies data collected via the scientific method.	Demonstrates little to no ability to recognize data collected with the scientific method.

← Levels are implicational

SELECTING ASSIGNMENTS FOR GEN ED ASSESSMENT

- Think about the instructions for the course assignments on your syllabus or the sections/questions on your tests and quizzes. Which ones ask students to perform the behaviors in each outcome? Create a map or blueprint:

	HW ₁	HW ₂	Midterm Exam
LO ₁	-	#1-4, 7-10	Section 4, part B
LO ₂	All	All	Sections 1, 3

- Of the course assignments that you mapped to each learning outcome, which elicit at least the “Moderate” level of performance on the Gen Ed rubric?
 - You may need to consider tweaking a course assignment to elicit that level.

AFTER TODAY'S WORKSHOP: SCORE SAMPLE RESPONSES

- Try using your Gen Ed [rubric](#) to score former students' responses to your assignment (or draft a response yourself if it's a new assignment).
 - See if you can differentiate performance across levels. If not, then what modifications to the assignment (or what other assignment) might work better?

USING THE RUBRIC IN CANVAS

- Log in to your course/section(s) through Academica or directly at <https://canvas.wayne.edu>
- Navigate to the Assignments section of your Gen Ed course
- Find the module for *General Education (Instructor Only)*. (May be pending)

▼ [2020 Winter] General Education Curriculum: Natural Science Inquiry (NSI) Inquiry Rubric (Instructor Only - Do Not Publish)



NAVIGATE TO THE GEN ED ASSIGNMENT

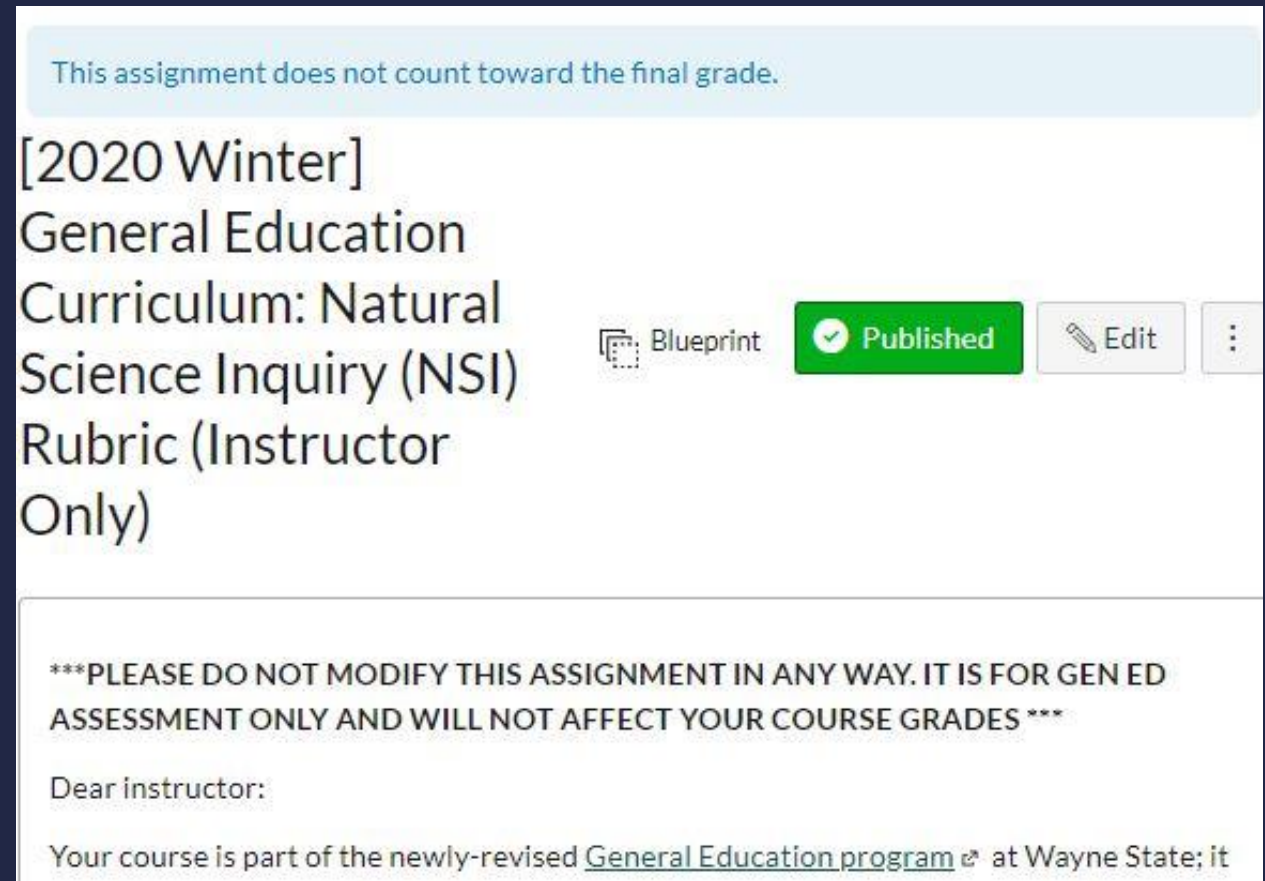
- Open the module for *General Education (Instructor Only)* to see the assignment.
 - The upload of the assignment may be pending. Contact gened@wayne.edu with questions.



The green check mark indicates that the Canvas assignment is published, but students will not see it because the module is hidden. The Canvas assignment must be published for SpeedGrader to work.



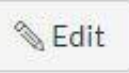

CANVAS ASSIGNMENT DESCRIPTION: INSTRUCTOR VIEW

- Click on the Canvas assignment title to open it.
 - GEOC has not created an activity for your students to complete.
 - Instead, the Canvas assignment is just a placeholder. It has instructions for how to use a course assignment for Gen Ed assessment, too.



This assignment does not count toward the final grade.

[2020 Winter]
General Education
Curriculum: Natural
Science Inquiry (NSI)
Rubric (Instructor
Only)

 Blueprint   

***PLEASE DO NOT MODIFY THIS ASSIGNMENT IN ANY WAY. IT IS FOR GEN ED ASSESSMENT ONLY AND WILL NOT AFFECT YOUR COURSE GRADES ***

Dear instructor:

Your course is part of the newly-revised [General Education program](#) at Wayne State; it

USE SPEEDGRADER TO ACCESS THE RUBRIC

Click on
SpeedGrader
within the
assignment to
use the rubric

This assignment does not count toward the final grade.

[2020 Winter] General
Education Curriculum:
Natural Science Inquiry (NSI)
Rubric (Instructor Only)

 Blueprint

 Published

 Edit



 SpeedGrader™

Tutoring Availability

You are not registered for any courses that have tutoring appointments available.

Supplemental Instruction

You are not registered for any courses

2020 Spring/Summer GenEd: Natural Science Inquiry (NSI)

Criteria	Ratings					Pts
LO1: Explain natural phenomena using contemporary scientific concepts, theories, and/or principles. threshold: 3	3 pts (High) Articulate/Explain Applies contemporary scientific concepts, theories, and/or principles to explain causal relationships of natural phenomena.	2 pts (Moderate) Describe/Define Correctly describes natural phenomena using contemporary scientific concepts, theories, and/or principles.	1 pts (Low) Identify Identifies some natural phenomena.	0 pts (No) Limited Evidence Unable to identify natural phenomena.	-1 pts (N/A) No Submission Student did not complete assignment.	3 / 3 pts
LO2: Describe the process of scientific inquiry. threshold: 3	3 pts (High) Articulate/Explain Articulates how scientific inquiry can be used to make valid inferences about patterns, relationships, or themes involving natural phenomena.	2 pts (Moderate) Describe/Define Discriminates between valid and invalid inferences using basic concepts and methods of scientific inquiry.	1 pts (Low) Identify Identifies basic concepts or methods of scientific inquiry.	0 pts (No) Limited Evidence Unable to identify or define basic concepts of scientific inquiry.	-1 pts (N/A) No Submission Student did not complete assignment.	2 / 3 pts

Click on the relevant score in the rubric for each outcome. Click SAVE at the bottom of the rubric when you're done.

This message will appear for every student because they won't directly attach their work to this Canvas assignment.

This student does not have a submission for this assignment

SAVE AFTER EACH STUDENT; IGNORE POINTS

<p>🕒 L04: Apply the scientific method to evaluate data threshold: 3</p>	<p>3 pts (High) Articulate/Explain Interprets the meaning of data collected via the scientific method and articulates its relevance to stated hypotheses.</p>	<p>2 pts (Moderate) Describe/Explain Describes data collected via the scientific method using scientific theory, concepts, or principles.</p>	<p>1 pts (Low) Identify Identifies data collected via the scientific method.</p>	<p>0 pts (No) Limited Evidence Demonstrates to no recognition collected scientific</p>	<p>-1 pts (N/A) No mission student did not complete assignment</p>	<p>3 / 3 pts</p>
						<p>Total Points: 11 out of 12</p>

Save Cancel

Points are just default placeholders. They do not affect students' grades.

MOVE TO THE NEXT STUDENT

This student does not have a submission for this assignment

[2020 Winter] General Education Curriculum: Natural Science Inquiry (NSI) R... 0/1 Graded 1/1 Nathan Chavez

2020 Spring/Summer GenEd: Natural Science Inquiry (NSI)

Criteria	Ratings
LO1: Explain natural phenomena using contemporary scientific concepts, theories, and/or principles. threshold: 3	3 pts (High) Articulate/Explain Applies contemporary scientific concepts, theories, and/or principles to explain causal relationships of natural phenomena.
	2 pts (Moderate) Describe/Define Correctly describes natural phenomena using contemporary scientific concepts, theories, and/or principles,
	1 pts (Low) Identify Identifies some natural phenomena.
	0 pts (No) Limited Evidence Unable to identify natural phenomena.

Click on the arrow to move to the next student.

When you're done with the last student, close the SpeedGrader window.

ASSIGNMENTS THAT DON'T USE RUBRICS PT. 1



Not all courses give assignments that work with rubric scoring. Large classes with multiple choice exams only would be one example.

To address this situation, GEOC has created an alternate assessment option that still uses a course assignment, but is submitted in Excel. To begin:

1. “Blueprint” your assignment – Which items or sections elicit evidence of each Gen Ed learning outcome at the moderate level or higher?
 - Example: Final exam questions 1, 3, 5, 7, and 9 elicit evidence of NSI LO 1, questions 2,4,6,8,and 10 elicit evidence of NSI LO2
 - Out of those items or sections, which elicit at least the Moderate level of the rubric?
2. Identify a range of scores on the items for each learning outcome that corresponds to each level of the rubric. (See next slide.)

ASSIGNMENTS THAT DON'T USE RUBRICS PT. 2

- You can identify a range of scores that corresponds to each level
 - e.g., “Moderate” performance = Scores from 75% to 90% on *relevant questions/items

Learning Outcome	(High) Skillfully Converts	(Moderate) Converts	(Low) Identifies	(No) Little to No Evidence
 Score range:	91%-100%	75%-90%	60%-74%	<60% 
LO1: Apply mathematical models to real-world problems.	With high degree of accuracy, identifies relevant real-world relationships ...	With some noticeable errors, identifies relationships...	Identifies relationships...	Demonstrates little to no relationship...

After setting these ranges, convert students' scores into the rubric levels and submit those results in the Gen Ed Excel template. (e.g. 93% = 3 pts on rubric)

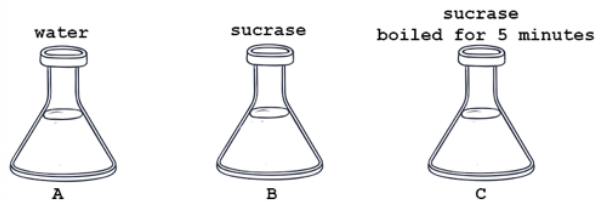
GETTING INDIVIDUAL ITEM SCORES FROM CANVAS: STUDENT ANALYSIS REPORT

1. Click on the assignment in Canvas
2. Click on *Quiz Statistics*
3. Click on *Student Analysis*
4. Use Excel to calculate the number of:
 - correct answers
 - students in each score range for the rubric performance levels

Section	Section_id	Submitted	Attempt	Question 1 (ID and stem)	Points possible	Question 2 (ID and stem)	Points possible
Fall 2018 American Govt System Sec 003	CRN	date/time	1	student 1 response	student 1 score	student 1 response	student 1 score
Fall 2018 American Govt System Sec 003	CRN	date/time	1	student 2 response	student 2 score	student 2 response	student 2 score

ASSIGNMENT-TO-RUBRIC ALIGNMENT EXAMPLE

The experiment is set up to determine the activity of sucrase, which catalyzes the digestion of sucrose to fructose and glucose. Three flasks containing the same amount of sucrose in water are prepared with addition of water, sucrase, and sucrose boiled for 5 minutes as indicated in the picture below.



After 5 minutes, glucose and fructose will be observed in _____.

- A. flask A only
- B. flask B only
- C. flask C only
- D. flasks A and C
- E. flasks B and C


Support for the hypothesis of sucrase denaturation can be obtained by comparing sucrose digestion in _____ after 10 minutes

- A. flasks A and B
- B. flasks A and C
- C. flask B at time zero and again
- D. flasks B and C
- E. flask A at time zero and again

Learning Outcome	High	Moderate	Low	Little to No Evidence
LO1: Explain natural phenomena using scientific concepts, theories, and/or principles.	<i>Applies</i> contemporary scientific concepts, theories, and/or principles to explain natural phenomena.	<i>Correctly describes</i> natural phenomena using contemporary scientific concepts, theories, and/or principles.	<i>Identifies</i> natural phenomena.	<i>Unable to identify</i> natural phenomena.

While these questions reach at least the moderate level, having only 2 questions will only result in 3 possible scores (100%, 50% and 0%), so would not correspond to the 4 levels of the rubric.

SUBMITTING SCORES IN EXCEL

 WAYNE STATE UNIVERSITY		Final NSI Assessment Scores					
Instructor's Name:		Student Name	Student ID	LO1 Score	LO2 Score	LO3 Score	LO4 Score
Instructor's Access ID:							
Course Number:							
CRN:							
Semester:							
Scale for Scores:							
3 = High evidence							
2 = Moderate evidence							
1 = Low/limited evidence							
0 = No evidence student has achieved learning outcome							
-1 = Student did not submit assessment assignment							

- Use the GEOC Excel template to report your assessment data.
 - Instructions in tab 1
- Contact gened@wayne.edu to request the template or ask questions.

WANT FEEDBACK OR MORE HELP?

- You can request individual feedback or a consultation!
 - General Education Assessment (Email: gened@wayne.edu)
 - Office for Teaching and Learning (otl.wayne.edu)
- The [General Education Program Assessment website](#) has information about other aspects of assessment as well.
- Questions about Canvas should be directed to lmsadmin@wayne.edu.