

## 2024 - 2025 General Education Executive Summary

**Department:** Natural Science      **Date:** 6/10/25

**Members involved with analysis of artifacts:** Kristy Jurchen, Rob Hermann, Connie Callahan, Andrea Watson, Raegan Skelton, John Jurchen, Kyle Johnson

**See General Education Assessment Plan for:**

a) Learning Outcome; b) Background; c) Question(s); d) Methodology

### **Analysis of artifacts:**

1). **PERFORMANCE CRITERIA\*** - *How was data analyzed? (attach rubrics/scoring tools if used).*

Artifacts were analyzed according to the rubric below. Rubrics were sent to the faculty beforehand for review, and the departmental faculty met together and scored the artifacts through discussion and consensus.

Rubric:

1 – not satisfactory (does not address the question)

2 – minimally done (student addresses question, but does not base this on course content)

3 – moderately done (student addresses question, but only minimally discuss the relevance to course content or has notable errors in their discussion)

4 – satisfactory (student addresses question, providing substantial support for their statement based on course content; student does not have notable errors in their discussion)

5 – very well done (student addresses question, with substantial, relevant, and insightful discussion based on class content)

### **Summary of RESULTS\*:**

1). *Restate the assessment question(s) (from the Assessment plan):*

How well can students answer the Enduring Question, “What does the study of creation tell me about God, myself, and how I should care for it?”

2). *Summarize the assessment results. A narrative summary is required. Charts, tables or graphs are encouraged but optional.*

Each Living Stones course included at least one assignment designed to encourage students to answer the Enduring Question. The life science courses tended to focus on the “caring for creation” aspect of the enduring question, while the physical science courses tended to focus on the awe and wonder inspired by the study of creation and what that sense of wonder tells students about themselves and about God. A total of 137 artifacts were assessed from 10 different courses. The classes, number of artifacts (N), and number receiving each score in the rubric are shown in the table below. Overall, 92.7% of students received a score of 3 or higher on the 5-point rubric, and 69.3% of students received a score of 4 or higher.

Course	N	1	1.5	2	2.5	3	3.5	4	4.5	5
Agri 100	20	0	0	0	0	3	0	7	1	9
Bio 110	10	0	0	1	0	2	0	2	0	5
Bio 111	22	2	0	0	0	2	0	12	0	6
Bio 243	11	0	0	0	1	5	0	0	0	5
Chem 109	14	0	0	1	0	3	2	7	0	1
Chem 115	13	0	0	1	0	4	0	6	1	1
Phys 109	12	0	0	0	1	2	0	7	0	2
Phys 111	15	0	0	1	0	5	0	4	4	1
Sci 202	9	0	1	1	0	1	1	4	0	1
Sci/Phys 331	11	0	0	0	0	2	0	3	0	6
<b>Total</b>	<b>137</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>29</b>	<b>3</b>	<b>52</b>	<b>6</b>	<b>37</b>

3). **INTERPRETATION\*** - *Discuss how the results answer the assessment question(s).*

Overall the department succeeded in its aspirational goal of having 90% of students achieve a score of 3 or better, and over 50% of students achieve a score of 4 or better. Every course individually met these standards, except for Bio 243 which only missed the 50% 4 or better mark by one student, and Sci 202, which missed the 90% 3 or better mark by one student but achieved the 50% 4 or better mark. The students overall did a good job of applying specific content from each course to the enduring question and connecting the course content to their own lives. We were pleased with how freely students shared what studying each subject taught them about God, even in courses where that was not a

requirement explicitly stated in the assignment description.

4). *Observations made that were not directly related to the question(s). (i.e. interrater reliability of the scoring tool was low)* We enjoyed seeing the assignments and prompts that other instructors used, as that gave us ideas for how to modify our own assignments.

**Sharing of Results:** *When were results shared? Date:* May 16, 2025

*How were the results shared? (i.e. met as a department)* Met as a department

*Who were results shared with? (List names):* Connie Callahan, Raegan Skelton, Kyle Johnson, Andrea Watson, Gregg Einspahr, Rob Hermann, Kristy Jurchen, John Jurchen

**Discussion of Results –Summarize your conclusions including:**

1. **ACTION\***- *How will what the department learned from the assessment impact:*

a. *Teaching:* We will continue to emphasize to students the connection between the course content and their lives, and what it tells them about God and themselves.

b. *Assignment/course:* We will continue to use the Enduring Question assignments largely as they are. Some instructors will modify their assignments to incorporate ideas learned from other courses and instructors.

c. *Program:* Several instructors will incorporate aspects of these Enduring Question assignments and ways of thinking into departmental courses other than the Living Stones courses.

d. *Assessment:* We may modify the rubric used to assess the Enduring Questions assignments, or use a slightly different rubric for Life Science versus Physical Science courses.

2. **IMPACT\***- *What is the anticipated impact of the ACTION\* on student achievement of the learning outcome in the next academic year?* We expect that students will continue to do well in answering the Enduring Question and relating it to course content. After this year's experience with the assignments, several faculty will refine their assignments and approach, and we expect students may do even better in the future.

3. **BUDGET IMPLICATIONS** – *Indicate budget requirements necessary for the successful implementation of the ACTION\** (i.e. an additional staff person, new equipment, additional sections of a course).  
None

***If action is taken – it is recommended that the same learning outcome and assessment plan be used for a second assessment cycle.***

***What assessment questions related to the learning outcome would the program like to investigate in the future?*** Since this was our first year assessing the Enduring Question, we would like to revisit it in the future to confirm these findings.

**Submitted by:** Kristy Jurchen **Assessment Committee Reviewed:** 6/16/25

**Department Chair notified – approval/additional action needed:**na

**BUDGET IMPLICATIONS – Assessment Committee Chair notified appropriate Dean:** na