# General Education Assessment Report 2023

Inquiry & Analysis

Assessed in 2022-23

According to the General Education Assessment Plan

Provided to the General Education Board by Dr. Helen Caprioglio

#### **GENERAL EDUCATION ASSESSMENT PROCESS & RUBRICS**

The General Education <u>Assessment Plan 2021-2026</u> was developed by the General Education Board and approved in 2021. This plan includes the assessment of ten skills outcomes, two each year on five-year cycle. The first assessment was done in 2021-22. The assessment uses VALUE rubrics developed by AAC&U, as modified by the Colorado Department of Higher Education (CDHE) General Education Council for use in Colorado GT Pathways assessment.

A CSU Pueblo summer 2021 faculty task force provided suggestions of possible artifact types for use. Faculty were to provide student learning artifacts from their courses which demonstrate the outcomes scored by the appropriate rubric. These artifacts were then to be collected and a sample of them scored by peer faculty to provide data on student performance.

One skill outcome, <u>Inquiry & Analysis</u>, was assigned for assessment in the second year. The specific criteria scored are:

## Inquiry & Analysis Rubric

- Identify a Topic
- Incorporate Information and Existing Research
- Integrate Various Points of View
- Select or Develop a Design Process
- Analyze and Interpret Evidence
- Draw Conclusions

Table 1 shows the Gen Ed courses for which student artifacts were requested in 2022-23. Also indicated is the number of artifacts provided by instructors of sections of each course, the number found to be appropriate for scoring, and actual number scored.

Note: sampling in some courses was pre-sampled to reduce quantity of artifacts for collection. Instructors were requested to submit the papers for some fraction of each section with an ODD or EVEN number CRN by taking work from a set pattern of students on the roster.

Table 1. Courses to be assessed AY 2022-23 and number scored:

(GT-SS1, GT-SS2, etc.)       POLS 202       12       12       Essay         POLS 201       0       SOC 201       0         SW 205       0       PPT slides         Natural & Physical Science       BIOL 100/L       17       17       PPT slides         PHYS 201/L       36       29       Lab report         PHYS 202/L       15       15       Lab report         PHYS 222/L       10       10       Lab report         ANTH 101/L       23       23       Essay         EPER 162/L       114       31       Lab report         CHEM 111/L       40       0       Exam	Inquiry & Analysis (SPRING 2023)	Course	# of artifacts submitted	# artifacts scored	type of artifact
etc.)  GEOG 103	Social Science	POLS 101	19	19	Essay
POLS 201 0 SOC 201 0 SW 205 0	(GT-SS1, GT-SS2,	POLS 202	12	12	Essay
SOC 201   SW 205   O	etc.)	GEOG 103	42	31	Essay
Natural & Physical Science			0		
Natural & Physical Science		SOC 201	0		
Science		SW 205	0		
Science					
PHYS 202/L 15 15 Lab report PHYS 222/L 10 10 Lab report ANTH 101/L 23 23 Essay EPER 162/L 114 31 Lab report CHEM 111/L 40 0 Exam GEOL 101/L 35 0 Discussion board pos BIOL 121/L 0 BIOL 181/L 0 BIOL 182/L 0 BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 125/L 0 CHEM 101/L 0 CHEM 126/L 0 CHEM 127/L 0 CHEM 100/L 0 PHYS 110/L 0 PHYS 201/L 0	Natural & Physical		17	17	PPT slides
PHYS 222/L ANTH 101/L 23 23 Essay EPER 162/L 114 31 Lab report CHEM 111/L 40 0 Exam GEOL 101/L 35 0 Discussion board pos BIOL 121/L 0 BIOL 181/L 0 BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 125/L 0 CHEM 125/L 0 CHEM 100/L 0 C	Science		36	29	Lab report
ANTH 101/L 23 23 Essay EPER 162/L 114 31 Lab report CHEM 111/L 40 0 Exam GEOL 101/L 35 0 Discussion board pos BIOL 121/L 0 BIOL 181/L 0 BIOL 182/L 0 BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 125/L 0 CHEM 125/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 201/L 0		PHYS 202/L	15	15	Lab report
EPER 162/L 114 31 Lab report CHEM 111/L 40 0 Exam GEOL 101/L 35 0 Discussion board pos BIOL 121/L 0 BIOL 181/L 0 BIOL 182/L 0 BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 125/L 0 CHEM 125/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 201/L 0 PHYS 221/L 0		PHYS 222/L	10	10	Lab report
CHEM 111/L 40 0 Exam GEOL 101/L 35 0 Discussion board pos BIOL 121/L 0 BIOL 181/L 0 BIOL 182/L 0 BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 125/L 0 CHEM 105/L 0 CHEM 105/L 0 CHEM 105/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 201/L 0 PHYS 201/L 0 PHYS 221/L 0 PHYS 221/L 0		ANTH 101/L	23	23	Essay
GEOL 101/L 35 0 Discussion board pose BIOL 121/L 0 BIOL 181/L 0 BIOL 182/L 0 BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 140/L 0 PHYS 201/L 0 PHYS 201/L 0 PHYS 201/L 0 PHYS 221/L 0 PHYS 221/L 0 PHYS 221/L 0		EPER 162/L	114	31	Lab report
BIOL 121/L  BIOL 181/L  BIOL 182/L  BIOL 201/L  BIOL 202/L  BIOL 223/L  BIOL 224/L  CHEM 101/L  CHEM 121/L  CHEM 122/L  CHEM 125/L  CHEM 160/L  PHYS 110/L  PHYS 201/L  PHYS 201/L  O  BIOL 221/L  O  CHEM 121/L  O  CHEM 125/L  CHEM 125/L  CHEM 125/L  CHEM 125/L  CHEM 100/L  CHEM 100/		CHEM 111/L	40	0	Exam
BIOL 181/L 0 BIOL 182/L 0 BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 201/L 0 PHYS 201/L 0 PHYS 221/L 0		GEOL 101/L	35	0	Discussion board posts
BIOL 182/L BIOL 201/L BIOL 202/L BIOL 223/L BIOL 224/L CHEM 101/L CHEM 121/L CHEM 122/L CHEM 125/L CHEM 160/L PHYS 110/L PHYS 201/L PHYS 202/L PHYS 221/L O BIOL 224/L O CHEM 125/L O CHEM 125/L O CHEM 160/L O PHYS 140/L O PHYS 201/L O PHYS 201/L O PHYS 221/L O		BIOL 121/L	0		
BIOL 201/L 0 BIOL 202/L 0 BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		BIOL 181/L	0		
BIOL 202/L  BIOL 223/L  BIOL 224/L  CHEM 101/L  CHEM 121/L  CHEM 122/L  CHEM 125/L  CHEM 160/L  PHYS 110/L  PHYS 201/L  PHYS 202/L  O  BIOL 223/L  O  CHEM 100  CHEM 1		BIOL 182/L	0		
BIOL 223/L 0 BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		BIOL 201/L	0		
BIOL 224/L 0 CHEM 101/L 0 CHEM 121/L 0 CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		BIOL 202/L	0		
CHEM 101/L 0 CHEM 121/L 0 CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 140/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		BIOL 223/L	0		
CHEM 121/L 0 CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 140/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		BIOL 224/L	0		
CHEM 122/L 0 CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 140/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		CHEM 101/L	0		
CHEM 125/L 0 CHEM 160/L 0 PHYS 110/L 0 PHYS 140/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		CHEM 121/L	0		
CHEM 160/L 0 PHYS 110/L 0 PHYS 140/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		CHEM 122/L	0		
PHYS 110/L 0 PHYS 140/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		CHEM 125/L	0		
PHYS 140/L 0 PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		CHEM 160/L	0		
PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		PHYS 110/L	0		
PHYS 201/L 0 PHYS 202/L 0 PHYS 221/L 0		PHYS 140/L	0		
PHYS 202/L 0 PHYS 221/L 0					
PHYS 221/L 0					
			-		
			-		
TOTAL 187			TOTAL	467	

#### **ARTIFACT COLLECTION & SAMPLING**

Denise Henry assisted faculty with collection of artifacts either through Blackboard assignment tagging or in hard copy. Helen reviewed submitted materials, verified applicability of rubric and provided the hard copies for scoring session. Courses with large numbers of artifacts were sampled by taking alternate students, etc.

#### **SCORING SESSION**

Faculty were recruited to participate in the two-day artifact scoring session June 2023. They were assigned to one of the groups based upon best match to their disciplinary expertise. Denise Henry (CTLL director) gave the introduction to the process and rubrics. Rubrics have integer scores of 0-4, with gen ed level coursework (1st and 2nd year) expected to be at developmental levels. (a few scorers did use half points) Denise Henry and Helen Caprioglio facilitated assignment of artifacts and collection of scoring data from use of the VALUE rubric. Three rounds of group scoring and discussion were held to increase interrater reliability. There were 12 scorers for Inquiry & Analysis. Scorers worked in pairs to discuss scores for each artifact.

Two faculty members scored each artifact, discussed each one, and submitted independent scores. Scores were averaged on each artifact for analysis & reporting.

Scores were collected and collated to provide the reported results in average.

#### RECOMMENDATIONS AND NEXT STEPS

- Sanction courses that don't submit artifacts, remove from Gen Ed?
- Incentivize submissions and scoring session participation
- Chairs have ownership of process
- Annual requirements for Gen Ed course instructors
  - Faculty teaching a Gen Ed course required to submit the assignment when syllabus is due, whether being assessed or not in current AY.
  - Submit to chairs and coordinators.
  - Review the assignment submitted and follow up with instructors as needed
  - Develop a strategy to address results from the scoring session.
  - Share a long-term assessment calendar
- Rep from each college that can close the loop on the cycle
- Support for new chairs
- Department faculty discussion about assignments that meet the rubric criteria
- Communicate fidelity to the SLO vs. freedom to develop individual assignments that meet the SLO
- How to ensure that understanding of rubric criteria is calibrated before assignments are created?
  - Calibrate rubric understanding early in the Academic Year
- Opportunities for cross-department collaboration
- Connecting to Program Assessment
- Use components of the rubric in non-Gen Ed courses

- Messaging and support across multiple communication channels
  - Gen Ed Board holds a special session
  - Leverage the CTLL Faculty Fellows and the Center
  - Department meetings
- Workload considerations for departments with a high number of Gen Eds

#### Faculty Feedback during session

#### Sample 1

- Different Perspectives
  - Not having student directions makes scoring a challenge
  - Having the assignment introduces bias against evidence between artifact and rubric. Difference between "grading" and scoring for assessment purposes.
- Instructors might not use this rubric when developing assignments
  - o How do we support faculty use of the rubric throughout the term?
  - They need to develop at least one assignment that meets all the outcomes. depts.
  - Need to support adjuncts in syllabus development to ensure at least one assignment is aligned.
- How can we help faculty identify more appropriate assignments for submission?
- We would grade the paper in our classes differently than we evaluate against the rubric
- Students should see the rubric. Faculty need to understand it.

## Sample 2

- This paper showed stronger evidence than the last one.
- Working with a partner was helpful.
- Row 5, This paper showed strong evidence that helped define the score between level 2 and level 3.
  - o Focus on the word "effective" what does effective mean?
- Evidence and drawing conclusions, what is a "relevant source"? Are they references or citations?
- What is the difference between a source and "various points of view"?
- Conclusion Confusion
  - o Whose is it? Whose should it be? The students or source?
- Sources are external. Citations distinguish info from a source from a point of view.
- What do we agree is "evidence"?
  - In text citations tell us where the conclusion came from, the student or the evidence.
  - Without citations, we can't differentiate between conclusions that are the students' and are the sources. Fostering students' ability to connect with resources then demonstrate analytic ability
- Lab reports' evidence is in a different context than a [social science's, English] paper's
- Consensus
  - Strip away assumptions and do not score papers based on which year we assume the student is in. May not be a 1st year in a gen ed course.
  - Rubric Specific References
    - Row 2 and 3: Integrate Sources Must have in-text citations
    - Row 5: Evidence may be self-generated or a citation
    - Row 6 : Conclusion should be self-generated

## Sample 3

Consensus = Mark a zero when evidence is not present

#### REFERENCED DOCUMENTS:

#### General Education Assessment Plan:

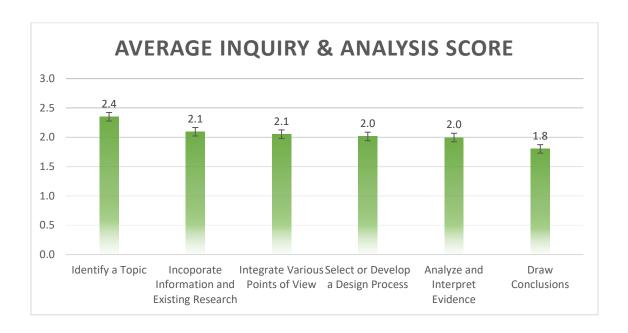
https://www.csupueblo.edu/assessment-and-student-learning/\_doc/general-education-assessment1/general-ed-assessment-plan-2021.pdf

#### VALUE Rubrics modified by CDHE:

https://cdhe.colorado.gov/sites/highered/files/Competency Written Communication.pdf
https://cdhe.colorado.gov/sites/highered/files/Competency Quantitative Literacy.pdf
https://cdhe.colorado.gov/sites/highered/files/Competency Inquiry and Analysis.pdf
https://cdhe.colorado.gov/sites/highered/files/Competency Oral Presentational Comm.pdf

#### **RESULTS**

Artifacts scored using <u>Inquiry & Analysis VALUE</u> Rubric. Average score on a scale of 0-4 across all written communication artifacts, with standard error.



Average Inquiry & Analysis score by course.

Course	Identify	Incorporate	Integrate	Select	Analyze	Draw
ANTH 101	2.1	2.2	2.1	1.8	2.4	2.1
BIO 100	N/A	N/A	N/A	1.4	1.0	1.0
EPER 162L	N/A	N/A	N/A	2.1	1.9	1.9
<b>GEOG 103</b>	2.4	2.0	2.0	1.9	2.1	1.9
POLS 101	2.5	2.2	2.2	2.3	2.2	2.0
POLS 202	2.5	2.0	2.1	2.3	2.3	2.5
PHYS 201	N/A	N/A	N/A	1.9	2.0	1.2

PHYS 202	N/A	N/A	N/A	2.9	2.5	2.7
PHYS 222	N/A	N/A	N/A	2.6	2.3	2.4
ALL	2.4	2.1	2.1	2.0	2.0	1.8

Score averages overall vary across outcomes and show differences between courses. Courses submitted different types of artifacts.

#### **ANALYSIS & "CLOSING THE LOOP"**

Our Assessment Plan states:

Annual outcomes for the assessment process will address the following questions:

- 1. To what extent do CSUP students demonstrate the learning outcomes of our university's General Education program?
- 2. What strengths or areas of improvement can be made to the assessment process based on the results derived from the rubric rating scales and applied back to the courses?
- 3. What recommendations are suggested for improving the General Education program based on the data from the analysis?

General Education Faculty are now requested to review and interpret the results. Further suggested considerations:

- 1. How well did the artifact collection process work? How might it be improved next round?
- 2. What were the strengths and challenges with the scoring process itself?
- 3. What do the results suggest about the process overall?
- 4. How will these results be used by Gen Ed faculty to improve student learning? (How do we close the loop?)
- 5. What actions will be taken over next few years toward improvements?
- 6. Who will be responsible for accomplishing those actions?
- 7. Other Ideas?

## **GEN ED ASSESSMENT FOR 2023-24**

Critical Thinking or Creative Thinking SLOs will be assessed in the following AY24 courses:

Creative Thinking
ARH 211
ARH 212
ART100
ENG 114
MUS 118
SPN 130
CID 103
ASL 101 + 102
ASL 201 + 202
FRN 101 + 102
FRN 201 + 202
GER 101 + 102
GER 201 + 202
ITL 101 + 102
ITL 201 + 202
SPN 101 + 102
SPN 201 + 202

Critical Thinking
CS 101
HIST 110
HIST 111
HIST/CS 136
HIST 201
HIST 202
PHIL 102
PHIL 120
PHIL 201
PHIL 204
PHIL 205