2024-25 Reynolds General Education Executive Summary

Introduction

General education at Reynolds constitutes foundational knowledge for all degree programs and evidence of student learning core components necessary for success. Informed by external requirements from SCHEV, the VCCS, and SACSCOC, faculty lead general education efforts at Reynolds, teaching selected courses and measuring student learning with nationally normed rubrics that are adapted by college faculty. Reynolds designs these efforts to provide actionable results to improve learning opportunities within fundamental courses at the college.

Applying Knowledge

In academic year 2024-25, Reynolds focused analysis on two core general education competencies -- Professional Readiness (PR) and Scientific Literacy (SL) -- while continuing to collect data on student evidence from all six (see table below for results). Using three courses, SDV 100 for PR and BIO 101 and BIO 106 for SL, faculty across disciplines scored assignments to measure student learning and check for alignment between the assignment for the course and the learning outcome measured by the rubric.

Students taking SDV 100 demonstrated PR by creating a Vision Board Final Project to share with their classmates and participating in a Peer Review process through a discussion board. Students in BIO 101 and BIO 106 courses demonstrated their knowledge of SL by applying the scientific method to a cellular respiration lab or fast food research project.

Below are definitions and learning outcomes used for the two general education competencies being measured in 2024-25, those and the other four definitions are in the college catalog: https://catalog.reynolds.edu/content.php?catoid=8&navoid=649#general-education-goals-and-objectives-outcomes

> ***Professional Readiness*** *is the ability to work well with others and display situationally and culturally appropriate demeanor and behavior. Degree graduates will demonstrate skills important for successful transition into the workplace and pursuit of further education.*
>
> ***Scientific Literacy*** *is the ability to apply the scientific method and related concepts and principles to make informed decisions and engage with issues related to the natural, physical, and social world. Degree graduates will recognize and know how to use the scientific method, and to evaluate empirical information.*

Reynolds General Education Goals, Results, Actions from 2023-2024 Academic Year

Competency	Goal & Stretch Goal	Results & Actions
Civic Engagement (CE)	Goal – 70% of students will score 70% or higher on assignment Stretch - 75% of students will score 70% or higher on assignment	Fall 2023 – 83% scored above 70% = **MET goal** Spring 2024 – Rubric adjustment for improved scoring
Critical Thinking	Same as CE above.	Fall 2023 – 89% scored above 70% = **MET goal** Spring 2024 – 98% scored above 70% = **MET goal**
Professional Readiness	Goal – 80% of students will score 70% or higher on assignment Stretch - 90% of students will score 70% or higher	Fall 2023 – Rubric and assignment realignment work Spring 2024 – 98% scored above 70% = **MET stretch goal**
Quantitative Literacy	Same as CE.	Fall 2023 – Rubric and assignment realignment

Competency	Goal & Stretch Goal	Results & Actions
		Spring 2024 – 72% scored above 70% = **MET goal**
Scientific Literacy	Same as CE.	Fall 2023 – 91% scored above 70% = **MET stretch goal** Spring 2024 –73% scored above 70% = **MET goal**
Written Communication	Goal – 70% of students will score 70% or higher on assignment Stretch - 75% of students will score 80% or higher	Fall 2023 – 97% scored above 80% = **MET stretch goal** Spring 2024 – 79% scored above 80% = **MET stretch goal**

While these results indicate most goals having been "met," there is an opportunity to examine and consider revising goals to more closely align them with student performance.

Methodology

- College faculty (BIO, SDV) used college-adapted AAC&U rubrics and definitions on select assignments, and a diverse group of Reynolds full-time faculty randomly selected 100 to be scored; however, not all artifacts collected were scoreable, however.
- Faculty Gen Ed scorers (n=10) each evaluated nearly 50 artifacts for each competency with average scores of 14.3 (of 18 possible points) for PR and 8.4 (out of 12 possible) for SL.
- Scored rubrics on 3 = exemplary, 2 = proficient and 1 = developing performance levels, established average and median values below. Standard deviations (SD) indicate variation from the mean in scoring results.
- Interrater reliability was estimated by an average of standard deviations for the number of student artifacts that received a score by more than one faculty member. A value of zero would indicate perfect alignment with higher values indicating greater differences.

Quantitative Results

	# artifacts	Avg. / Median scores*	Std. Dev.	Interrater # / Avg. SD.	# Dual Enroll	Avg. / Median of Dual Enrl.
Professional Readiness	99	14.3 / 15.0	3.1	87 / 1.9	8	12.3 / 13.0
Scientific Literacy	95	8.4 / 9.0	2.3	78 / 1.5	8	9.9 / 10.0

*18 total points for PR, 12 total points for SL

Qualitative Results

- Particularly with PR, there were challenges in scoring all elements of rubric based on assignment submission, specifically with teamwork participation.
- SL assignments were not all identical and scorers only received instructions on one of the student submissions so scoring both was difficult for some.
- Course faculty included the SL rubric on the assignment prompt for students, increasing transparency in how work was to be scored; this represents a best practice and could be scaled to improve transparency in evaluating student learning.
- Scoring training for faculty this year increased familiarity with how to score and provided cross-disciplinary engagement.
- While low in number, the few dual enrollment results indicate comparable performance but with a lower average in PR and a higher average in SL than on-campus students.

Limitations / Challenges

Assignment and rubric alignment will continue to be improved. While more student artifacts were collected and reviewed, there is still a need to quality check each submission to provide greater consistency and ease of scoring. Two different assignments were collected but not identified in SL until after scoring started. A system to better disaggregate data of specific student populations is also needed. Reynolds also must continue to refine the process and increase collection of student artifacts from dual enrollment sections, so that more useful comparisons can be made between on-campus and off-campus student performance.

Program Highlights

This was the 2nd year the BIO 101 classes used the Cellular Respiration Lab and Rubric. Biology faculty did considerable revisions between years 1 and 2 to improve instructions for the Cellular Respiration Lab Scientific Literacy assignment. The first year they noticed a high number of students not turning in the lab due to instructors allowing students to drop their lowest lab grade. The Biology faculty instituted a policy that this lab cannot be dropped and had a much higher return rate of students completing the assignment for year 2 (85% completion rate for Fall 2024 compared to 74% completion rate for Spring 2024). With the assignment revisions they also noted an increase in the percentage of students who are earning 70% or higher on the assignment from 57.4% in Spring 2024 to 72.67% in Fall 2024.

Interdisciplinary review of the SDV 100 assignment and rubric for the Professional Readiness Competency by the General Education Committee allowed the faculty to exchange ideas of how students could reflect more on their Peer Review process of their Vision Board Final Project assignment. With this feedback in mind, the Department chair for SDV added a reflection component to the Final Project submissions. Also, areas of the rubric that the committee found to be redundant in scoring were combined for future Professional Readiness assignments.

Conclusions

Overall results of collection, scoring, and analysis are more refined each year; however, the goal of providing practical information to faculty for instructional adjustments to improve student learning is still a challenge. The improvement of the methodology to collect and score results, along with Canvas scoring, allows for the recruitment of more artifact collection to strengthen PR and SL conclusions. In addition, a greater focus on alignment with the rubrics may improve the application of these results to seek improvement in learning.

Schedule of Core Competency Detailed Review

Competency	2024-25	2025-26	2026-27
Civic Engagement			**X**
Critical Thinking			**X**
Professional Readiness	**X**		
Quantitative Literacy		**X**	
Scientific Literacy	**X**		
Written Communication		**X**	