

Cardinal Core Assessment of Arts & Humanities (Fall 2022 Sample)

Cardinal Core Program (Effective Summer 2018)

The Cardinal Core program at the University of Louisville prepares students to do the advanced work needed for their baccalaureate degrees and prepares them to contribute to society throughout their lives through their professional work and civic engagement. The program emphasizes the development of key intellectual skills relevant to any career path: critical thinking, quantitative reasoning, effective communication, and the understanding of historical, social, and cultural diversity. Students will develop these intellectual skills in the following content areas of Arts and Humanities, Historical Perspectives, Oral Communication, Quantitative Reasoning, Social and Behavioral Sciences, Natural Sciences, Written Communication, and the competency area of Diversity in the United States and Globally. Upon completion of the program, students will be prepared to analyze complex problems and evaluate possible courses of action in an environment characterized by diversity and the need for sustainable solutions.

Assessment Administration

The assessment of student learning outcomes is a national expectation in higher education. Section 8.2.b of the Southern Association of Colleges and Schools Commission on Colleges' (SACSCOC) accreditation standards requires that the institution identify student learning outcomes for collegiate-level general education competencies in its undergraduate degree programs, assess the extent to which it achieves these outcomes, and provide evidence of seeking improvement based on analysis of the results. Further, the Kentucky Council on Postsecondary Education (CPE) states that "All Kentucky public universities and KCTCS colleges are expected to assess, in accordance with SACSCOC Principles of Accreditation and based upon nationally accepted standards, the student learning outcomes associated with their general education programs, indicate a relationship to the faculty-generated Statewide General Education Student Learning Outcomes, and provide evidence of ongoing assessment that ensures comparability for transfer purposes on a three-year cycle."

The Cardinal Core Curriculum Committee (CCCC) is charged with continued oversight of the assessment of student learning outcomes across the Cardinal Core curriculum to support the continuous improvement of the Cardinal Core program in alignment with SACSCOC and CPE requirements. The assessment operates on a three-year cycle, in which samples of student work are collected from one content area each semester and assessed by a panel of trained faculty. The Fall 2022 assessment was focused on the program's overarching competencies of critical thinking, effective communication (written), and understanding of historical, social, and cultural diversity and specifically reviewed student work samples from courses in the Arts & Humanities (AH) content area. The CCCC has designated the American Association of Colleges & Universities (AAC&U) Critical Thinking VALUE Rubric, the AAC&U Written Communication VALUE Rubric, and the University of Louisville's Cardinal Core Diversity Rubric as the instruments to measure these competency areas.

University of Louisville Arts & Humanities Learning Outcomes

Arts and Humanities are concerned with the understanding of art, music, theatre, literature, philosophy, and religious thought. Students who satisfy this requirement will demonstrate that they are able to do all of the following:

1. Critically evaluate and synthesize texts and other forms of expression in the arts and humanities using primary and/or secondary materials.
2. Demonstrate an understanding of the reciprocal relationship between (1) social and cultural factors in their historical context and (2) intellectual inquiry and creative expression within the arts and/or the humanities.
3. Represent and critically respond to multiple points of view on cultural issues in different historical, social, and/or cultural contexts.
4. Communicate effectively in speech and writing, paying particular attention to the use of evidence in interpretive arguments, through citation appropriate to the discipline.

Statewide Arts & Humanities Student Learning Outcomes

1. Utilize basic formal elements, techniques, concepts and vocabulary of specific disciplines within the Arts and Humanities.
2. Distinguish between various kinds of evidence by identifying reliable sources and valid arguments.
3. Demonstrate how social, cultural, and historical contexts influence creative expression in the arts and humanities.
4. Evaluate the significance of human expression and experience in shaping larger social, cultural, and historical contexts.
5. Evaluate enduring and contemporary issues of human experience.

AAC&U VALUE Rubric Measures

Critical Thinking VALUE Rubric

- (CT1) Explanation of issues
- (CT2) Evidence – Selecting and using information to investigate a point of view or conclusion
- (CT3) Influence of context and assumptions
- (CT4) Student’s position (perspective, thesis/hypothesis)
- (CT5) Conclusions and related outcomes (implications and consequences)

Written Communication VALUE Rubric

- (WC1) Context of and Purpose for Writing
- (WC2) Content Development
- (WC3) Genre and Disciplinary Conventions
- (WC4) Sources and Evidence
- (WC5) Control of Syntax and Mechanics

University of Louisville, Cardinal Core Diversity Rubric

- (D1) Knowledge of social, historical, and cultural structures
- (D2) Applied Knowledge
- (D3) Cultural Awareness
- (D4) Attitudes/Openness

The AAC&U VALUE Rubrics and the UofL Cardinal Core Diversity rubric use a four-point scale, with 4 indicating performance of the measure as “capstone” level, 3 indicating performance at “milestone,” 2 indicating “milestone,” and 1 indicating performance at “benchmark.” In addition, a score of zero can be assigned to any work that does not meet the benchmark level performance and “not applicable” could be assigned for assignments that did not provide an opportunity for the student to demonstrate the criterion within the rubric measure.

Assessment Process

For the Fall 2022 assessment of student work from the Arts & Humanities (AH) content area, the Cardinal Core Office collaborated with department chairs regarding the details of the upcoming assessment to ensure faculty participation and appropriate sampling. A formal memo outlining the project and process was also provided to each of the department chairs and to all faculty teaching Cardinal Core courses within the Arts & Humanities (AH) content area prior to the start of the semester to ensure a mutual understanding of project expectations. The initial communication provided a timeline for collection of assignment prompts and student work.

After the semester withdrawal deadline passed, the Cardinal Core Office retrieved the class rosters for all AH Cardinal Core courses from the Office of the Registrar and selected a stratified random sampling, to ensure that the sample included students from all courses, with only one course from each instructor if they were teaching multiple sections of the same course. Instructors of all AH courses were sent a list of students selected for the assessment along with detailed instructions requesting that instructors provide a copy of one assignment along with the ungraded responses for the selected students to be sent via email to the Cardinal Core Office service account.

Student artifacts were collected and stored in an electronic repository and uploaded into the LiveText© assessment management system. A panel of faculty (tenured and tenure-track faculty, term faculty, and adjunct faculty) assessed student artifacts. The AAC&U Critical Thinking VALUE Rubric, AAC&U Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric were applied to all student artifacts.

Prior to the assessment reading, assessors completed mandatory training/rubric norming. Training materials were developed in collaboration with the CCC Assessment Subcommittee and based upon UofL’s long-standing general education assessment training practices, as well as AAC&U VALUE Institute training procedures. All participants were required to complete an asynchronous training module, consisting of an overview of the assessment process and holistic assessment practices, a dissection of each rubric, and scoring of benchmark sample assignments. Benchmarks were assignments selected to represent a wide range of content and skill

development in order to give the assessors a baseline for measuring expectations of learning and evaluating student performance (Herman, Osmundson, & Dietel, 2010). Assessors were given a week to complete the training module in Blackboard and submit their scores for all benchmark samples. The results of the benchmark scoring were compiled, presented, and discussed during a collaborative meeting. Competency areas (rubric rows) with disagreement among reviewers were discussed in the findings shared with reviewers to clarify intended applications of the rubrics. The results from scoring benchmark samples are provided in Appendix A.

After completion of the assessment training/rubric norming, each assessor was assigned a username and password for one of three LiveText© accounts and a list of courses and sections to assess. Three readers assessed each artifact so that scores could be compared across assessors for reliability purposes. Assessors were given a week to complete all assessments.

Data Collection Overview

The enrollment for Arts & Humanities Cardinal Core courses in Fall 2022 was approximately 4086 students at the time the sample for the assessment was selected. The Cardinal Core Office waited to identify a sample after the deadline to withdraw from courses passed and received 343 student work samples. Samples were included from the College of Arts and Sciences, College of Education and Human Development, and the School of Music. Of the 343 work samples, 123 came from AH courses (courses that only fulfill an AH requirement), 85 came from AHD1 courses that also fulfill a U.S. Diversity (D1) requirement, and 135 came from AHD2 courses that also fulfill a Global Diversity (D2) requirement.

Summary of Assessment Data

For the assessment of Arts & Humanities outcomes, 343 student artifacts were assessed by faculty from the College of Arts & Sciences, College of Business, Kent School of Social Work, and the School of Dentistry, using the AAC&U Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric.

Table 1 and Table 2 provide the percentage of work samples scored at each rubric level for both Critical Thinking and Written Communication. A calculation of the percentage of students who scored at a 3 or 4 (*after any not applicable ratings were removed*) is also from both Spring 2018 and Fall 2022 assessments to provide a comparison of student performance.

Table 1

Percentage of Artifacts Scored at Each Rubric Level for Critical Thinking

	CT1	CT2	CT3	CT4	CT5
Capstone (4)	17.6%	8.6%	9.5%	10.1%	13.4%
Milestone (3)	44.2%	38.5%	32.5%	36.1%	30.6%
Milestone (2)	30.8%	38.6%	38.5%	31.2%	40.3%
Benchmark (1)	6.0%	8.0%	13.3%	18.3%	9.6%
(0)	0.2%	1.2%	3.1%	0.8%	1.3%
Not Applicable (NA)	1.2%	4.9%	3.2%	3.5%	4.8%
*%Scored at 4 & 3 (2022)	62.5%	49.6%	43.3%	47.8%	46.2%
*%Scored at 4 & 3 (2018)	59.0%	48.7%	41.1%	44.6%	43.4%

*Not Applicable scores were removed for calculating the % of students scoring at 4 or 3.

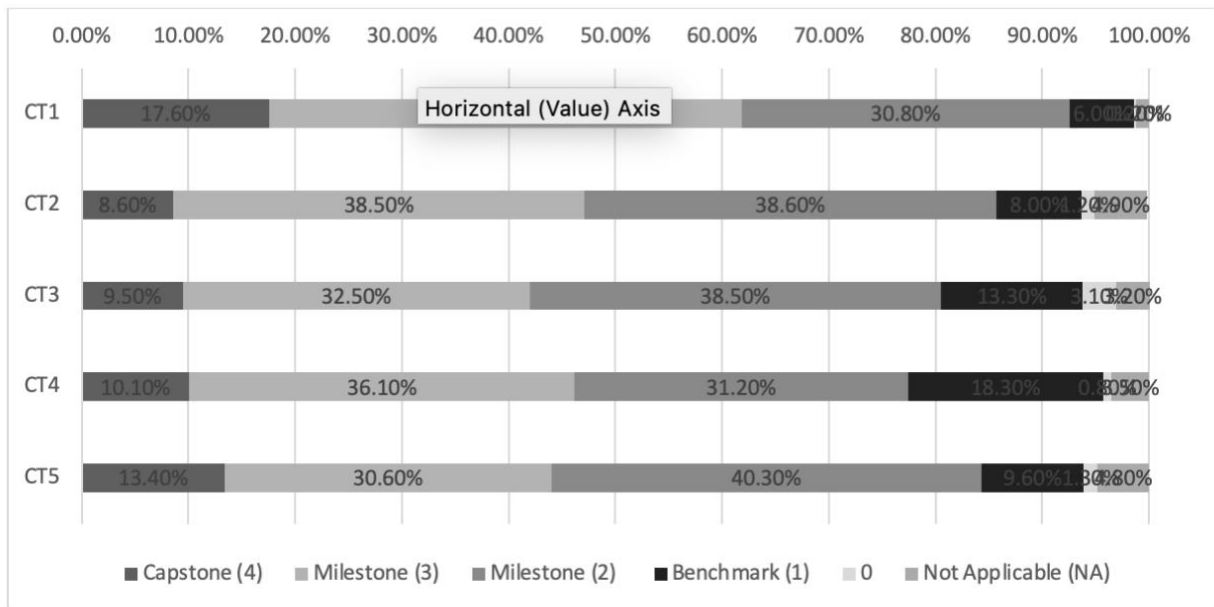


Figure 1. Percentage of Artifacts Scored at Each Rubric Level for Critical Thinking

Table 2

Percentage of Artifacts Scored at Each Rubric Level for Written Communication

	WC1	WC2	WC3	WC4	WC5
Capstone (4)	17.0%	11.8%	10.3%	10.9%	13.3%
Milestone (3)	41.3%	35.5%	39.1%	32.2%	53.0%
Milestone (2)	34.1%	40.0%	40.3%	36.7%	29.1%
Benchmark (1)	7.2%	11.7%	9.0%	11.4%	4.2%
(0)	0.1%	0.6%	1.0%	2.0%	0.0%
Not Applicable (NA)	0.3%	0.4%	0.3%	6.9%	0.4%
*%Scored at 4 & 3 (2022)	58.5%	47.5%	49.5%	46.2%	66.6%
*%Scored at 4 & 3 (2018)	61.1%	51.5%	50.3%	43.6%	63.9%

*Not Applicable scores were removed for calculating the % of students scoring at 4 or 3.

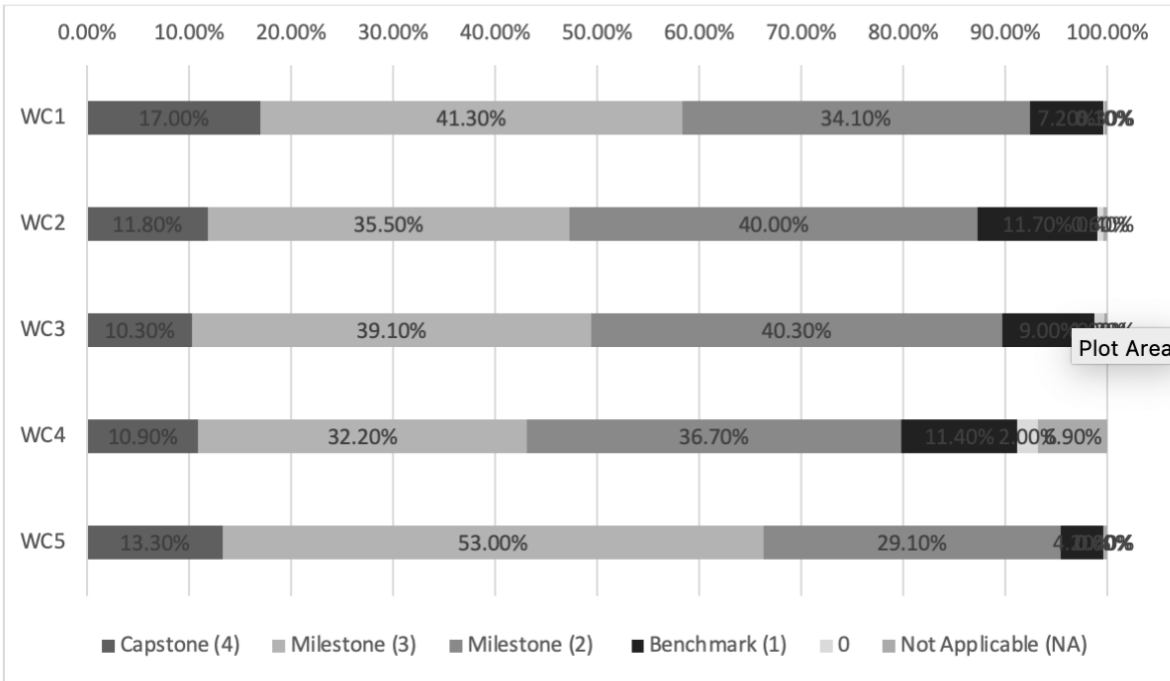


Figure 2. Percentage of Artifacts Scored at Each Rubric Level for Written Communication

Since the Assessment of Arts & Humanities, included courses that also fulfilled U.S. Diversity (D1) and Global Diversity (D2) requirements, the findings for the University of Louisville Cardinal Core Diversity Rubric are provided based on the Cardinal Core classification (AH, AHD1, or AHD2). The percentage of artifacts scored at a 4 or 3 for the Intercultural Knowledge and Competence VALUE Rubric, by course classification is provided in Table 3 and Figure 3.

Table 3

Percentage of Artifacts Scored at a 4 or 3 for University of Louisville Cardinal Core Diversity Rubric

	All AH Cardinal Core Courses	AH (Only) Cardinal Core Courses	AHD1 Cardinal Core Courses	AHD2 Cardinal Core Courses
D1	51.4%	52.0%	58.1%	47.1%
D2	42.9%	42.6%	48.6%	39.9%
D3	45.1%	39.7%	53.4%	44.6%
D4	66.3%	61.8%	71.2%	66.8%

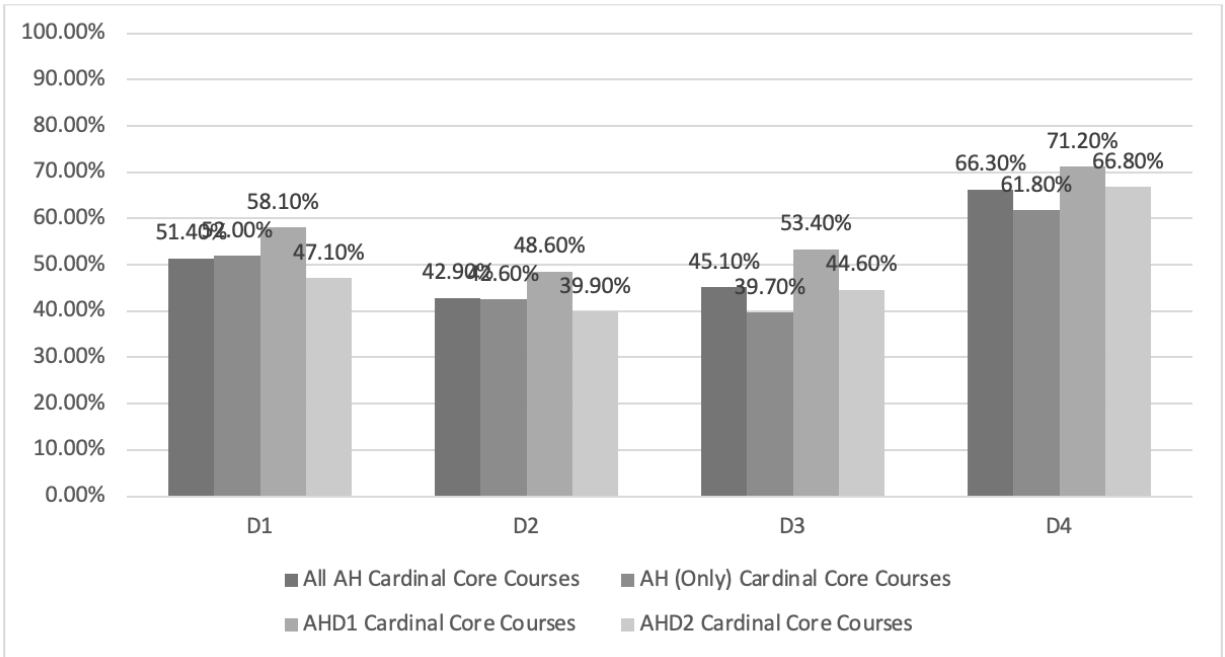


Figure 3. Percentage of Artifacts Scored at 3 or 4 by Cardinal Core Classification for each Measure of the University of Louisville Cardinal Core Diversity Rubric

In alignment with AAC&U VALUE Institute practices, scores for each individual work sample were calculated based upon scores assigned by three separate reviewers. The scores from all three reviewers were averaged and rounded to determine individual work sample scores for each rubric row. The mode for the individual work sample scores is provided in Table 4.

Table 4

Mode for Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and Cardinal Core Diversity Rubric

	CT1	CT2	CT3	CT4	CT5
Mode	3	3	2	2	2
	WC1	WC2	WC3	WC4	WC5
Mode	2	2	3	2	3
	D1	D2	D3	D4	
Mode	3	2	3	3	

A breakdown of overall scores by Diversity designation is provided in Table 5. The overall scores for each individual student were averaged to determine the mean for each group by measure.

Table 5

Mean for University of Louisville Cardinal Core Diversity Rubric by Cardinal Core Designation

	All AH Cardinal Core Courses	AH (Only) Cardinal Core Courses	AHD1 Cardinal Core Courses	AHD2 Cardinal Core Courses
D1	2.34	2.27	2.44	2.34
D2	2.20	2.16	2.25	2.22
D3	2.30	2.04	2.47	2.44
D4	2.51	2.15	2.71	2.71

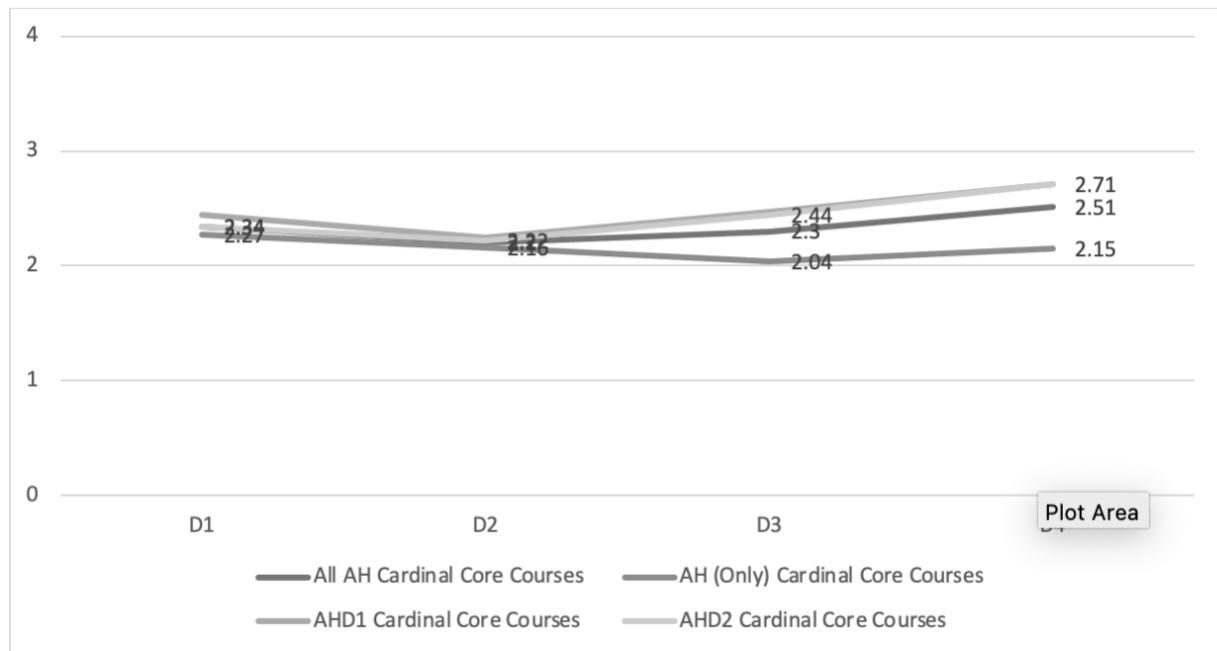


Figure 4. Mean Scores by Cardinal Core Classification for University of Louisville Cardinal Core Diversity Rubric Measures

A multivariate test (MANOVA) revealed that there was a statistically significant difference in performance on diversity measures based on Cardinal Core course designation, [$F(8,676)= 9.36, p <.05; \text{Wilk's } \Lambda = .810$]. To determine how the results for Diversity measures differ by group, the tests of between-subjects revealed statistically significant difference for cultural awareness (D3), [$F(2,34) = 9.36, p <.05$] and attitudes/openness (D4), [$F(2,34) = 12.49, p <.05$].

Post hoc comparisons using Tukey HSD test indicated that the mean score for AH samples was significantly different from AHD1 and AHD2 samples for cultural awareness (D3) and attitudes/openness (D4). These results indicate that students in courses with a Diversity designation scored significantly higher than students enrolled in courses without a diversity

designation on demonstrating cultural awareness and attitudes/openness. There were no significant differences between U.S. Diversity (D1) courses and Global Diversity (D2) designated courses on any Diversity measures.

Inter-rater Reliability

Three separate readers assessed each student artifact. Table 6 displays the mean score for the three separate readings of all artifacts.

Table 6

Inter-rater Summary for Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric

	Assessor 1	Assessor 2	Assessor 3	Standard Deviation
CT1	2.69	2.66	2.77	0.05
CT2	2.35	2.33	2.39	0.03
CT3	2.34	2.17	2.26	0.09
CT4	2.31	2.32	2.24	0.04
CT5	2.44	2.24	2.39	0.10
WC1	2.78	2.61	2.62	0.10
WC2	2.47	2.40	2.50	0.05
WC3	2.57	2.41	2.45	0.08
WC4	2.15	2.28	2.33	0.09
WC5	2.79	2.68	2.77	0.06
D1	2.36	2.27	2.42	0.08
D2	2.22	2.16	2.17	0.03
D3	2.24	2.31	2.29	0.04
D4	2.34	2.52	2.63	0.15

In addition to the descriptive statistics, Table 7 provides multiple measures of inter-rater reliability. The percentage agreement value was calculated to determine the percentage of artifacts for which all three assessors scored at either the same or within one performance level. Values for *Total Agreement* provided in Table 7 represent the percentage of artifacts for which all three assessors selected the same score (e.g., Assessors 1, 2, and 3 all selected 3). *Agreement (within 1 level)* represents the percentage of artifacts for which all three assessors scored the artifact at the same performance level or within one level (e.g., Assessor 1 selected a score of 3, Assessor 2 selected a score of 2, and Assessor 3 also selected a score of 2). If the assessor assigned “not requested” for the artifact that was treated as a 0 for the inter-rater reliability analysis since a 0 and “not requested” would both indicate the reviewer did not see the student demonstrate any component of the rubric measure.

In addition to percentage agreement, a one-way, average-measures intra-class correlation coefficient (ICC) was calculated to assess inter-rater reliability. ICC coefficients between .75 and 1.00 are considered excellent, .60 to .74 considered good, .40 to .59 fair, and below .4 is considered poor (Cicchetti, 1994).

Table 7

Inter-rater Reliability for Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and the University of Louisville Cardinal Core Diversity Rubric

Competency Measure	Total Agreement	Agreement (within 1 level)	ICC	95% Confidence Interval
CT1	19.2%	77.8%	0.63	(.55-.70)
CT2	18.4%	68.8%	0.68	(.61-.74)
CT3	16.6%	61.8%	0.66	(.58-.72)
CT4	11.4%	55.1%	0.57	(.48-.65)
CT5	14.0%	56.6%	0.62	(.54-.69)
WC1	15.5%	63.3%	0.53	(.43-.62)
WC2	15.5%	64.4%	0.61	(.53-.68)
WC3	20.4%	65.0%	0.60	(.52-.68)
WC4	14.9%	55.7%	0.63	(.55-.70)
WC5	20.7%	71.1%	0.56	(.46-.64)
D1	15.2%	59.2%	0.58	(.48-.65)
D2	10.2%	54.5%	0.57	(.47-.65)
D3	12.0%	60.6%	0.56	(.46-.64)
D4	15.5%	53.6%	0.50	(.40-.59)

Syllabus Review

The Provost requests that all faculty load their syllabi to Blackboard© each semester. These syllabi are then available through the university’s course catalog system. For the purpose of this review, the Cardinal Core Office collected all Arts & Humanities (AH) syllabi that were loaded to Blackboard in Fall 2022

The review of syllabi sought to answer two questions:

- 1) Does the syllabus contain the content specific Cardinal Core learning outcomes approved for the course?
- 2) Are assessment methods stated that support the content-specific Cardinal Core learning outcomes approved for the course?

An evaluation of the congruence between the listed assessment methods with the content specific approved Cardinal Core learning outcomes was not conducted when a reviewer determined that the syllabus does not contain a statement of the student learning outcomes.

The review of 117 Cardinal Core AH syllabi identified 91 syllabi (77.8%) containing the Arts & Humanities (AH) Cardinal Core learning outcomes approved for the course. Of the 75 courses that also fulfilled a Diversity designation, 59 (78.7%) also listed the D1 or D2 learning outcomes. The review of syllabi also revealed 13 syllabi (11.1%) containing AH student learning outcomes from the previous general education program and 8 syllabi (10.7%) with a Diversity designation containing the previous general education programs student learning outcomes. Further review of

the 105 syllabi containing the AH Cardinal Core learning outcomes or AH outcomes from the previous general education program revealed that 90 syllabi (86.5%) also listed the corresponding assessment methods.

Summary and Plan for Improvement

For critical thinking skills, results of the AH assessment indicate students continue to perform highest on explanation of issues (CT1) and lowest on influence of context and assumptions (CT3). There was a slight increase in the percentage of work samples scored at the highest two performance levels from 2018 to 2022 for all critical thinking measures.

Student performance was lower on the first three measures (context and purpose for writing, content development, and genre and disciplinary conventions) of Written Communication VALUE Rubric from 2018 to 2022, and higher on the last two measures (sources/evidence and control of syntax/mechanics). Context and purpose for writing (WC1) and control of syntax and mechanics (WC5) continue to be the highest performing areas. Sources and evidence (WC4) continues to be the lowest performing area for written communication measures.

This was the first assessment of Arts & Humanities using the University of Louisville Cardinal Core Diversity Rubric and results indicate students are not performing as well on applied knowledge (D2) and cultural awareness (D3) as they are with knowledge of social, historical, and cultural diversity (D1) and attitudes/openness (D4). Further analysis revealed no significant differences in student performance between courses with a U.S. Diversity designation and courses with a Global Diversity designation, however there was a significant difference in performance between work samples from courses with a diversity designation and courses without. Specifically, work samples from courses without a Diversity designation did not perform as high on cultural awareness (D3) and attitudes/openness (D4) as work samples from courses with a diversity designation.

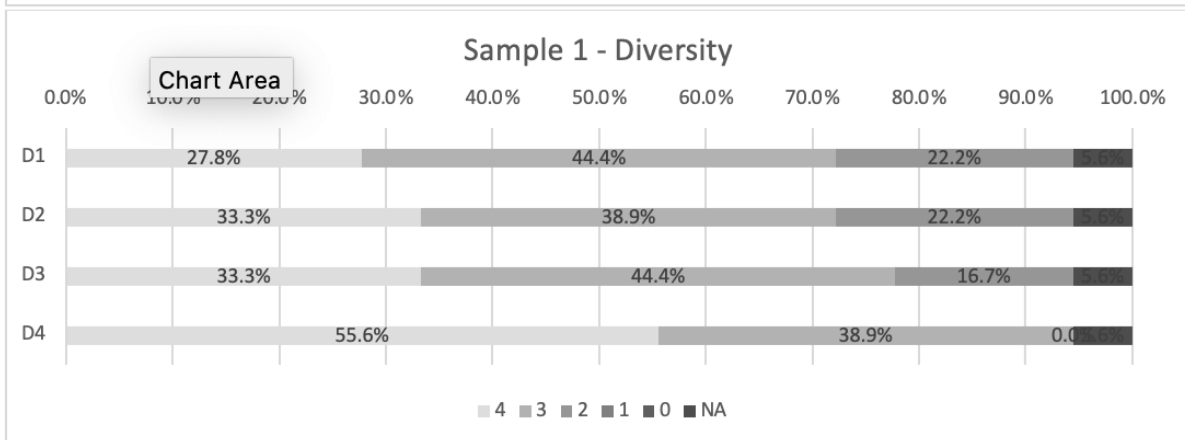
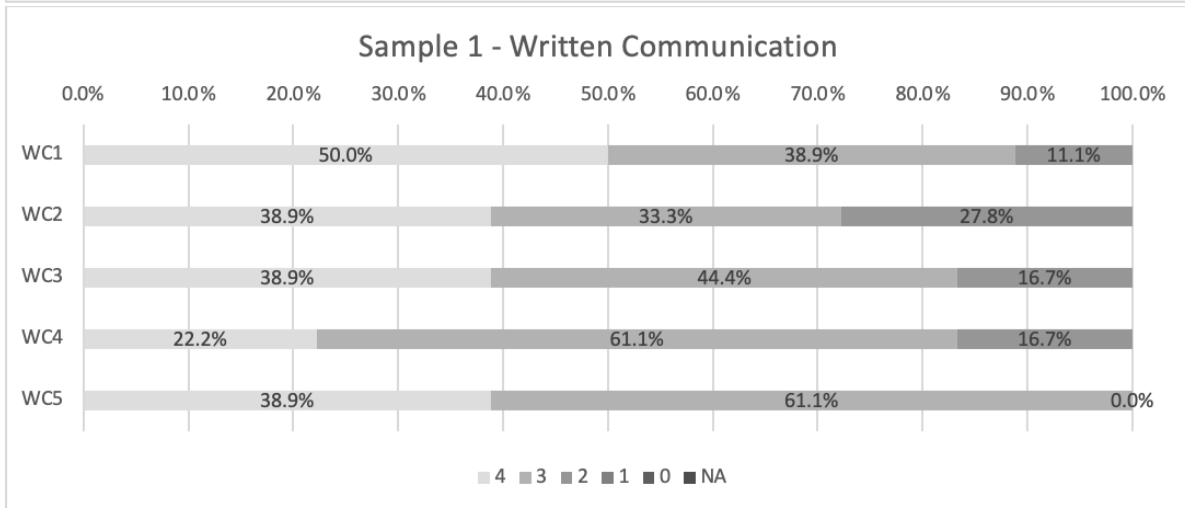
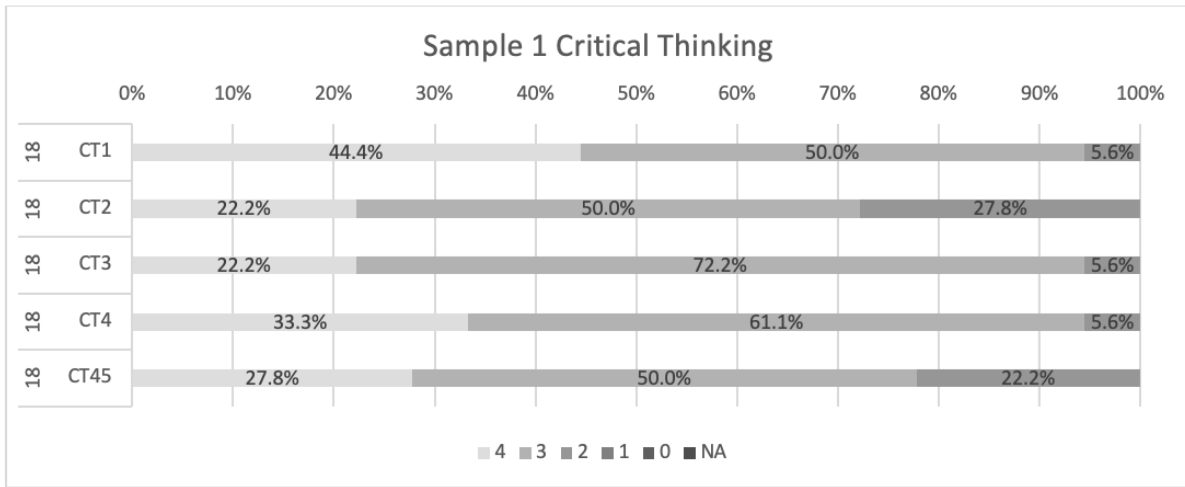
The results of this assessment are intended to help drive program improvement and support student growth. Faculty are encouraged to continue to emphasize building these competencies within their courses.

References

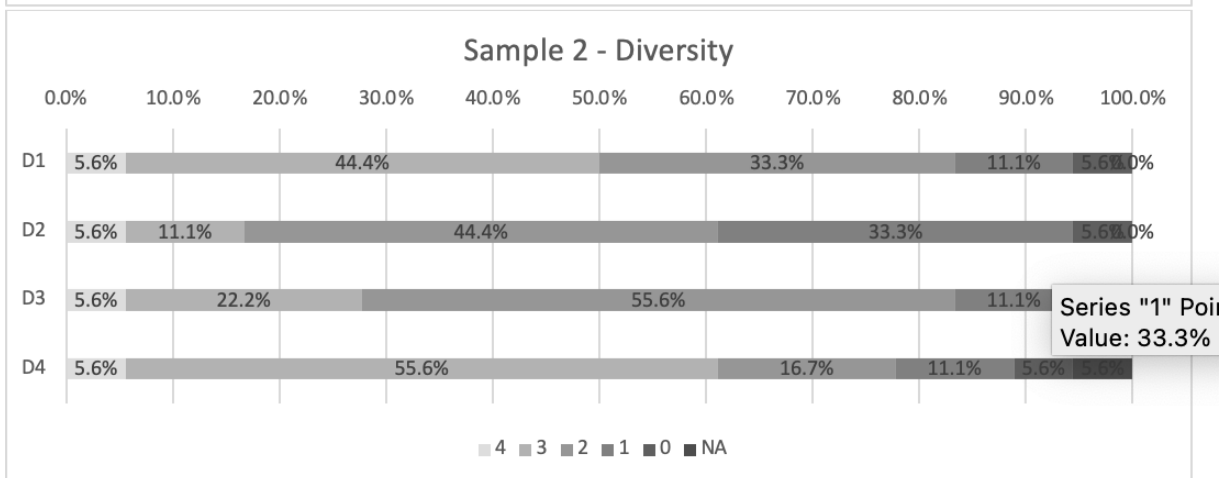
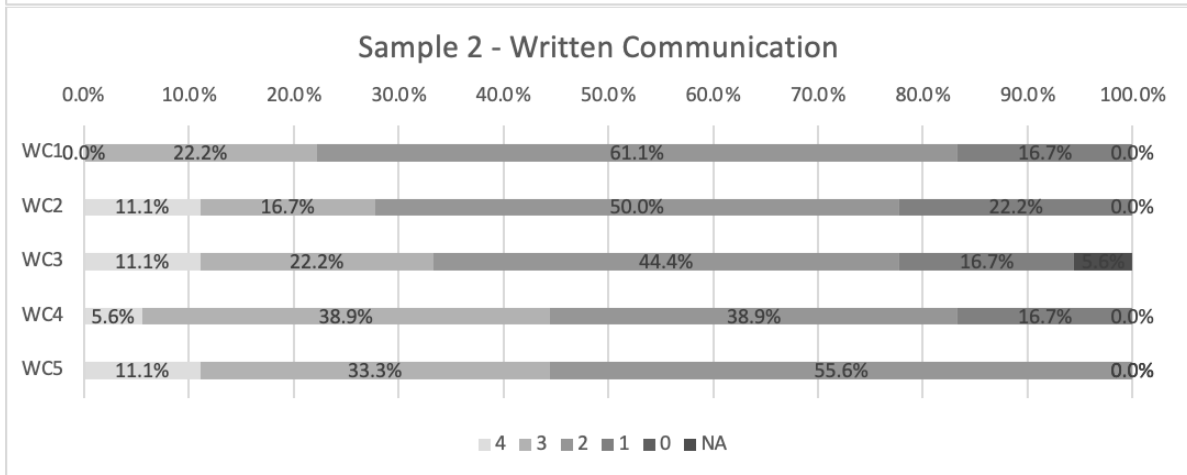
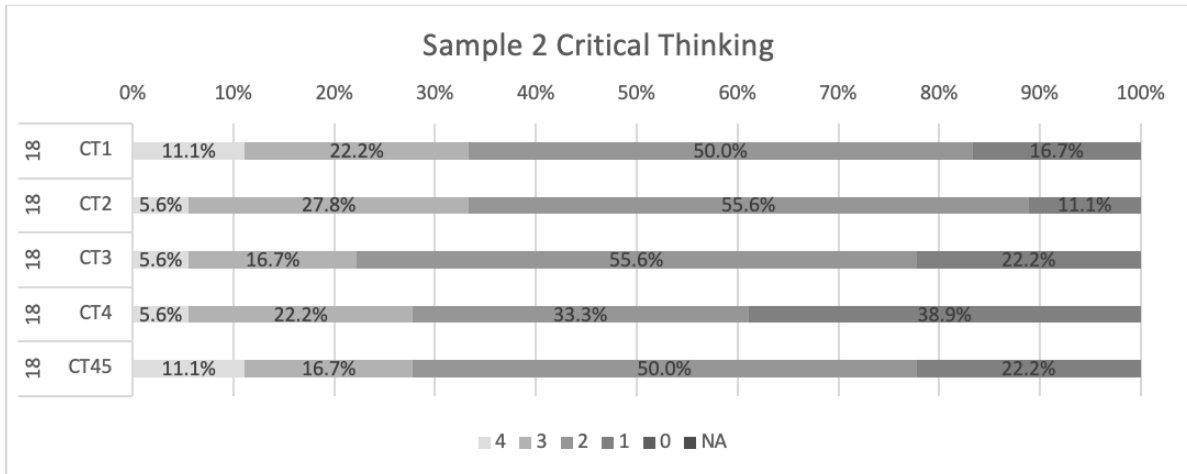
- Association of American Colleges and Universities. (2009). *Critical Thinking VALUE Rubric*. Retrieved from <https://www.aacu.org/value/rubrics/critical-thinking>
- Association of American Colleges and Universities. (2009). *Intercultural Knowledge and Competence VALUE Rubric*. Retrieved from <https://www.aacu.org/value/rubrics/intercultural-knowledge>
- Association of American Colleges and Universities. (2009). *Written Communication VALUE Rubric*. Retrieved from <https://www.aacu.org/value/rubrics/written-communication>
- Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6(4), 284-290. doi: 10.1037/1040-3590.6.4.284
- Fletcher, I., Mazzi, M., & Nuebling, M. (2011). When coders are reliable: The application of three measures to assess inter-rater reliability/agreement with doctor–patient communication data coded with the VR-CoDES. *Patient Education and Counseling*, 82(3), 341-345. doi:10.1016/j.pec.2011.01.004
- Hallgren, K. A. (2012). Computing inter-rater reliability for observational data: An overview and tutorial. *Tutorials in Quantitative Methods for Psychology*, 8(1), 23-34.
- Herman, J. L., Osmundson, E., & Dietel, R. (2010). *Benchmark Assessment for Improved Learning*. (AACC Report). Los Angeles, CA: University of Cali

Appendix A. Results from Assessment Training for the Critical Thinking VALUE Rubric, Written Communication VALUE Rubric, and University of Louisville Cardinal Core Diversity Rubric

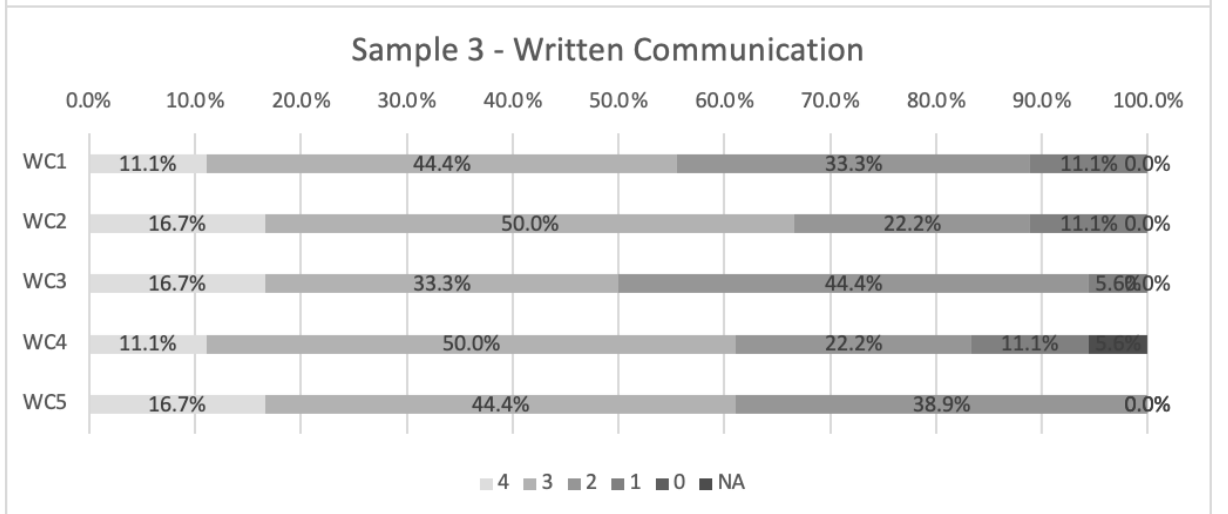
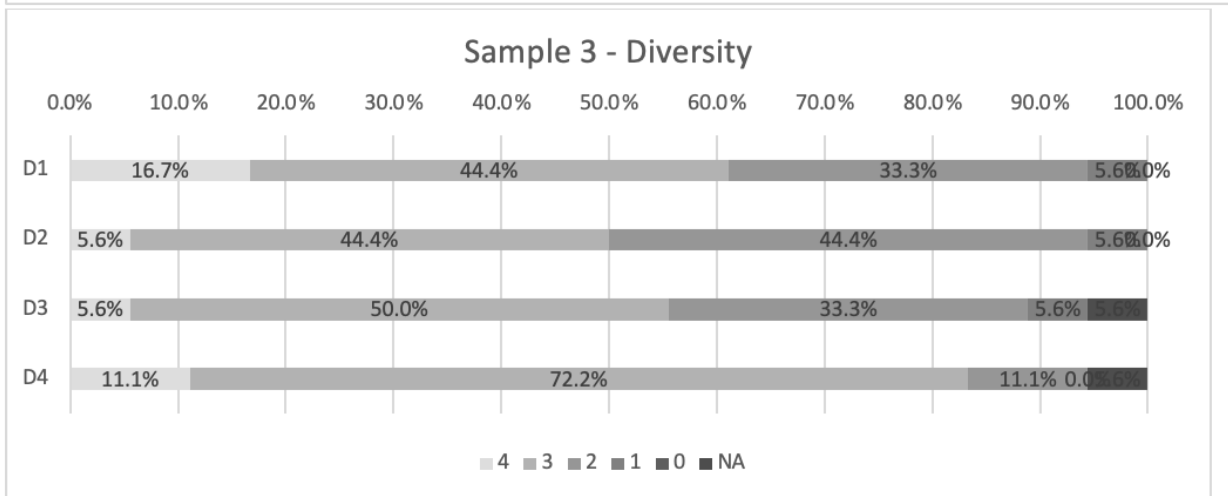
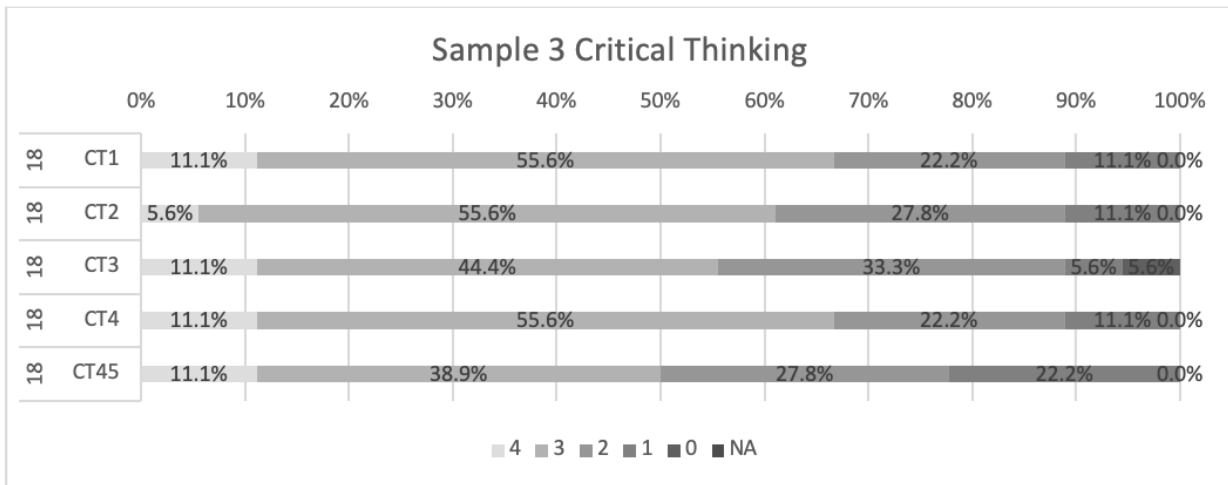
SAMPLE 1



SAMPLE 2



SAMPLE 3



SAMPLE 4

