



**2022-2023 GENERAL
EDUCATION ASSESSMENT
REPORT**



K CORE DESIGN AND OVERSIGHT

The University of Kentucky's general education program, UK Core (Core), was approved by the University Senate in May 2009 and implemented in the Fall 2011 semester. The Core curriculum was designed to foster student achievement in four overarching learning outcomes:

- I.** Students will demonstrate an understanding of and ability to employ the process of intellectual inquiry (Intellectual Inquiry).
- II.** Students will demonstrate competent written, oral, and visual communication skills both as producers and consumers of information (Composition & Communication).
- III.** Students will demonstrate an understanding of and ability to employ methods of quantitative reasoning (Quantitative Reasoning).
- IV.** Students will demonstrate an understanding of the complexities of citizenship and the process of making informed choices as engaged citizens in a diverse, multilingual world (Citizenship).

These broad learning outcomes are further defined through the [Outcomes and Assessment Framework](#). Moreover, they have been mapped to the [statewide learning outcomes](#), as shown in Appendix 1. Students must complete a minimum of 30 credit hours within specific Knowledge Areas mapped to one of the four learning outcomes to fulfill the Core requirements. Table 1 illustrates this curricular framework.

Table 1 UK Core Curricular Framework

Knowledge Area by Outcome	Credits
I. Intellectual Inquiry	
Arts & Creativity	3
Humanities	3
Social Sciences	3
Natural/Physical/Mathematical Sciences	3
II. Composition & Communication	
Composition & Communication I	3
Composition & Communication II	3
III. Quantitative Reasoning	
Quantitative Foundations	3
Statistical Inferential Reasoning	3
IV. Citizenship	
Community, Culture, & Citizenship in the USA	3
Global Dynamics	3
Total	30*

**Some UK Core courses may exceed three credit hours, most notably for Natural/Physical/Mathematical Sciences and Quantitative Foundations.*



Students can complete courses that fulfill Core credit and pre-major or major requirements. The [Undergraduate Bulletin](#) lists all Core-approved courses for academic year 2022-2023, and [UK's Registrar](#) provides information regarding their availability.

The [UK Core Education Committee](#) (UKCEC), a standing committee of the University Senate, oversees the Core. The UKCEC's primary responsibilities include the following:

- I.** Review and approve course proposals for inclusion in the Core.
- II.** Conduct ongoing reviews of courses to ensure continued alignment with the Core outcomes and assessment framework.
- III.** Work collaboratively with the Office of Strategic Planning & Institutional Effectiveness (OSPIE) to conduct assessment and program review of the Core.

UK CORE ASSESSMENT PROCESS

Cycle

Core learning outcomes are assessed in two-year cycles. The [Assessment Schedule](#) dashboard lists the courses scheduled for assessment and is available to all instructors.

The following Core outcomes and associated Knowledge Areas were targeted for assessment in the Fall 2022 and Spring 2023 semesters:

I. Citizenship

- i. Community, Culture, & Citizenship in the USA (CCC)
- ii. Global Dynamics (GDY)

II. Composition & Communication

- i. Composition & Communication I (CC1)
- ii. Composition & Communication II (CC2)

III. Quantitative Reasoning

- i. Quantitative Foundations (QFO)
- ii. Statistical Inferential Reasoning (SIR)

Artifact Collection

The assessment process relies on course-embedded assignments designed by faculty within the departments that teach the course. Course instructors identify assignments for assessment and map Core outcomes to them in the Canvas Learning Management System. Instructors provide one or more assignments that collectively address all learning outcomes. After mapping is completed, OSPIE staff extract students' work from each mapped assignment(s) to review.

Table 2a and Table 2b summarize the course and artifact information for the 2022-23 assessment cycle. Of the courses that mapped Core outcomes to assignments, OSPIE staff identified artifacts and assignments that were unusable due to missing pages or parts of the assignment, missing instructions, group work, or inaccessible file types.



Table 2a Fall 2022 Course Participation by Core Area

Core area	Approved Core courses	Courses offered	Courses mapped	Mapped courses with usable artifacts
Citizenship	154	79	51 (65%)	44 (56%)
CCC	59	36	29	26
GDY	95	43	22	18
Composition & Communication	11	9	8 (89%)	8 (89%)
CC1	5	5	4	4
CC2	6	4	4	4
Quantitative Reasoning	25	20	17 (85%)	16 (80%)
QFO	12	8	7	6
SIR	13	12	10	10

Table 2b Spring 2023 Course Participation by Core Area

Core area	Approved Core courses	Courses offered	Courses mapped	Mapped courses with usable artifacts
Citizenship	154	90	63 (70%)	59 (66%)
CCC	59	38	28	26
GDY	95	47	35	33
Composition & Communication	11	7	6 (86%)	6 (86%)
CC1	5	3	2	2
CC2	6	4	4	4
Quantitative Reasoning	25	15	13 (87%)	13 (87%)
QFO	12	7	6	6
SIR	13	8	7	7

Evaluators

The UKCEC Chair requested Associate Deans to disseminate invitations within their respective colleges to recruit evaluators. Interested individuals completed a survey to determine their availability to attend a pre-scheduled norming session and score student artifacts within two weeks. Instructors teaching a Core course in their Knowledge Area in the past three years were



prioritized. Part-time instructors and graduate students could volunteer; however, faculty took priority. Evaluators were selected in consultation with the UK Core Education Committee Chair.

Of those who submitted the survey expressing interest and availability, 43 were invited to be a UK Core evaluator. All 43 accepted the invitation and were added to a Microsoft Teams site where they completed asynchronous training modules. The asynchronous training modules contain videos describing the assessment process and how to score artifacts using a Microsoft Power App. Evaluators also reviewed copies of the associated Core rubrics in their Teams site and submitted personal information to receive their \$1,000 payment.

The final evaluators reflected a diverse academic background regarding classification and the colleges and departments represented (see Appendix 2). The group was comprised of 32 faculty, four post-docs, six staff members, and one graduate teaching assistant. Further, 37 evaluators taught a Core course in the past three years and six had been an evaluator in an earlier assessment cycle.

Process

OSPIE scheduled five synchronous virtual norming sessions for each Knowledge Area. Scores generated by the evaluators were normed during the sessions to increase consistency and interrater agreement. The virtual sessions were recorded and made available to evaluators for reference. After norming, evaluators were given access to their assigned artifacts and asked to complete their scoring in two weeks.

Evaluators were randomly assigned courses from the Knowledge Area they taught and assessed a random sample of students from each course. The sample size was 20 students per course for Citizenship and Quantitative Reasoning, while the Composition & Communication sample was 50 students per course. Students were sampled across available sections if multiple sections were taught, and evaluators scored all students from courses with fewer than 20 students, or 50 in the case of Composition & Communication. In total, each evaluator was assigned approximately 100 student artifacts to review and score. Rubrics used to assess artifacts can be found on the [OSPIE - UK Core Assessment website](#).

2022-23 INTERRATER AGREEMENT ANALYSIS

Within each course, 10% of students were scored by two evaluators to determine interrater agreement. Evaluators scored all artifacts independently and could view only their scores.

OSPIE assessed interrater agreement (IRA) by determining if two evaluators scored their overlapping artifact the same or within one point for each Core outcome, Knowledge Area, and rubric criterion. Examining Core outcomes and Knowledge Areas provides evidence of broad trends concerning evaluator agreement, while criterion-level results reveal specific disagreements and potential outliers.

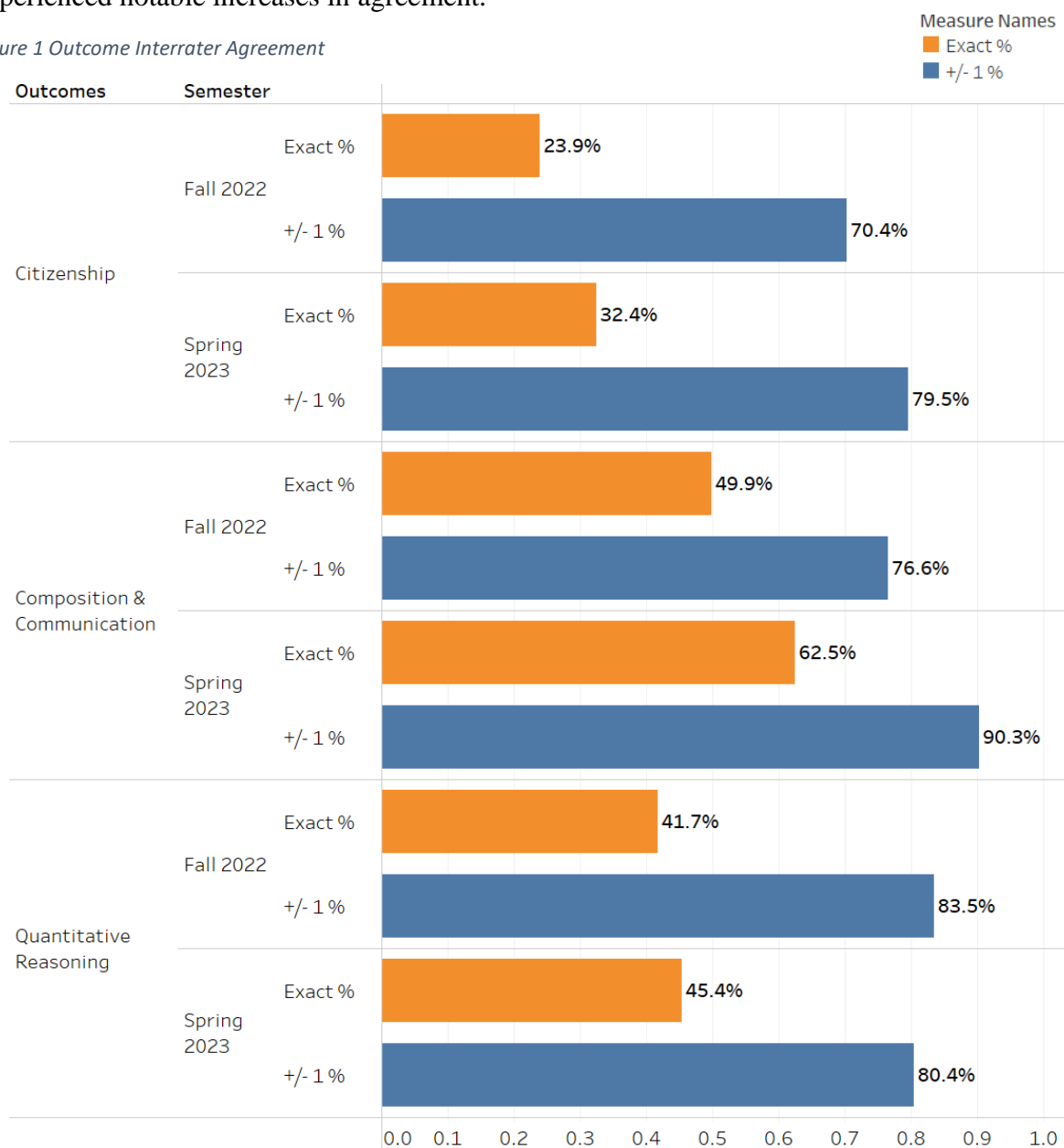
For this analysis, if both evaluators scored an artifact as N/A, they were identified as having the same score. However, if one evaluator scored N/A while the other scored within one point, they were not counted because of differences in measurement. The numbered scales measure



students' ability to satisfy criteria. N/A indicates that the assignment did not provide an opportunity for the student to meet a criterion, making it unwise to include on a scale for student performance. This decision resulted in three of the 1,427 student score comparisons not being labeled 'within 1 point.'

Figure 1 illustrates IRA for the assessed Core outcomes. In nearly every case, evaluator agreement increased from Fall to Spring. Quantitative Reasoning agreement remained relatively consistent between semesters, while Citizenship and Composition & Communication experienced notable increases in agreement.

Figure 1 Outcome Interrater Agreement



Breaking out the data by Knowledge Area allows for a more granular picture (see Table 3). In every case, over 50% of evaluators scored within one point of each other. Fall Global Dynamics and Spring Quantitative Foundations-Non-Math (QFON) had the lowest within one-point agreement, 58.1% and 62.5%, respectively. However, the remaining scores offered impressive levels of agreement. In eight core areas, over 80% of evaluators scored within one point. Fall QFON and Spring Composition and Communication I (CC1) had the highest levels of within one-point agreement at 100% and 98.5%, respectively.

Table 3 Knowledge Area Interrater Agreement

Outcomes	Knowledge Area	Semester	Exact %	+/- 1 %
Citizenship	CCC	Fall 2022	28.7%	78.0%
		Spring 2023	36.4%	88.4%
	GDY	Fall 2022	16.1%	58.1%
		Spring 2023	29.1%	72.7%
Composition & Communication	CC1	Fall 2022	43.5%	69.2%
		Spring 2023	64.6%	98.5%
	CC2	Fall 2022	62.3%	91.5%
		Spring 2023	62.0%	88.0%
Quantitative Reasoning	QFOM	Fall 2022	47.2%	83.3%
		Spring 2023	39.6%	75.0%
	QFON	Fall 2022	60.0%	100.0%
		Spring 2023	50.0%	62.5%
	SIR	Fall 2022	35.1%	80.7%
		Spring 2023	50.0%	90.5%

The interrater agreement at the criteria level is presented in Appendix 3. In several cases, there were sizeable gaps between the exact and within one-point categories, suggesting that when evaluators disagreed, the disagreement was typically within one rubric point. Across semesters, agreement reached impressive levels. Within one-point agreement fell below 50% in only one instance (GDY, Criterion 2, Fall), while within one-point agreement reached 100% in 22 criteria across Composition & Communication and Quantitative Reasoning.

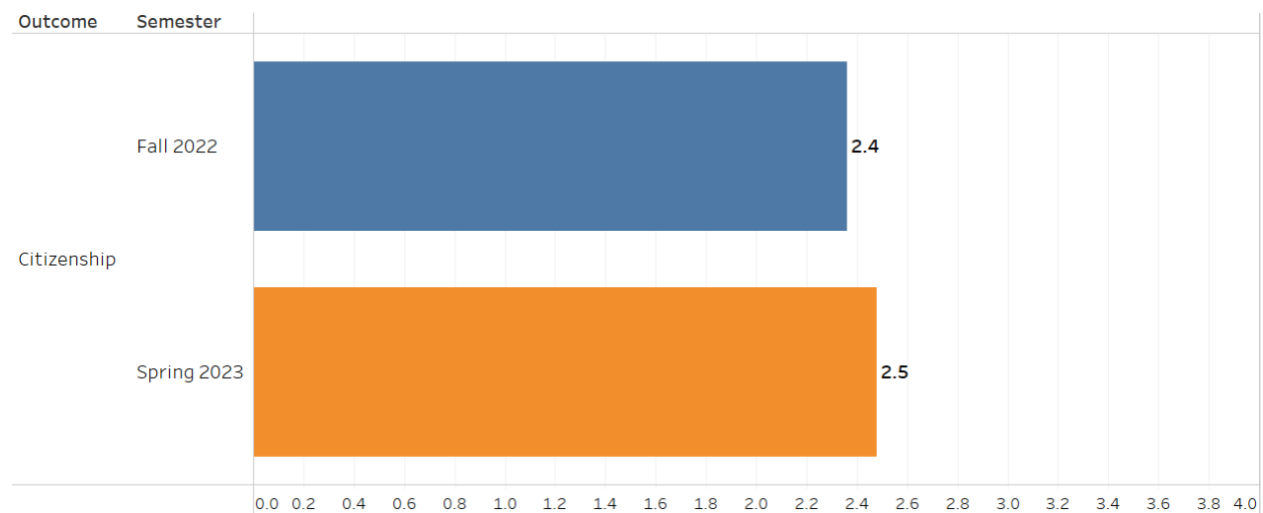
ASSESSMENT RESULTS

Citizenship

Citizenship uses a common rubric to assess the Global Dynamics (GDY) and Community Culture and Citizenship in the U.S.A. (CCC) Knowledge Areas. The rubric has a five-point scale to score student work: 0 = Inadequate; 1 = Emerging; 2 = Developing; 3 = Highly Developed; and 4 = Capstone. Evaluators could score rubric criteria as N/A for samples in each Knowledge Area.

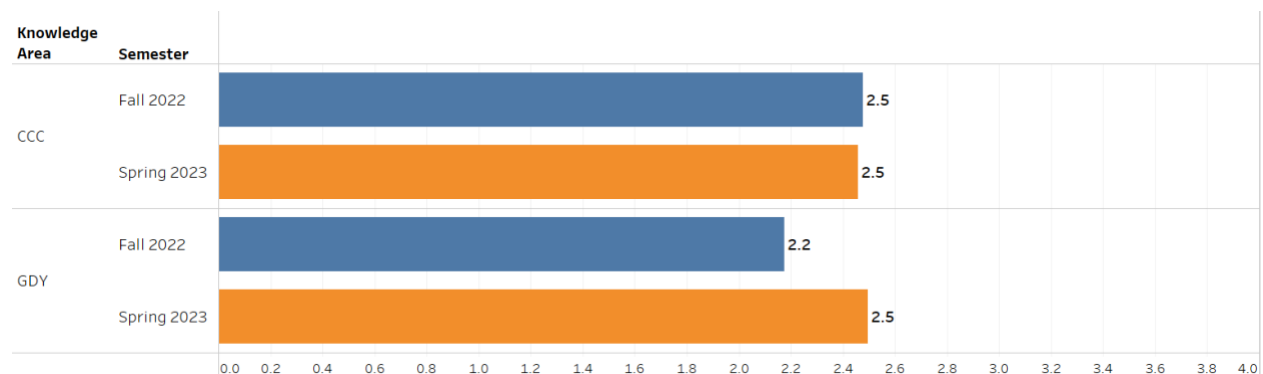
Figure 2 illustrates the average scores for the Citizenship outcome by semester. Average Citizenship scores ranged from 2.4 to 2.5 between the Fall and Spring semesters. The scores indicate that students performed, on average, between the ‘Developing’ and ‘Highly Developed’ levels.

Figure 2 Average Citizenship Outcome scores



Scores broken out at the Knowledge Area level offer a similar conclusion (see Figure 3). Average CCC scores stayed at 2.5 for Fall and Spring - between ‘Developing’ and ‘Highly Developed.’ Global Dynamics experienced more variation, with averages ranging from 2.2 in the Fall to 2.5 in the Spring.

Figure 3 Average Citizenship Knowledge Area scores



Criteria averages (see Appendix 4) provide a more granular picture of student performance. Across Spring and Fall, student performance remained between ‘Developing’ and ‘Highly Developed.’ Average student performance was the highest in the criterion ‘Provides information about the issue’ for both Knowledge Areas. Conversely, the ‘Complexities of decision making’ criterion had the lowest averages across Knowledge Areas and semesters.

A frequency analysis of scores (see Figure 4 and Figure 5) provides additional insight into the outcome and Knowledge Area results. Overall, 79.4% of Citizenship scores were either a two, three, or four score in the Fall semester - that figure improves to 81.2% in the Spring, with two being the most frequently occurring score in both semesters (35.8% Fall and 33% Spring).

The GDY frequency chart shows slightly lower percentages of students scoring either a two, three, or four across semesters compared to Citizenship. The figure drops to 72.2% (Fall) and 79% (Spring). However, the percentage of two, three, or four scores in CCC exceeded that of Citizenship in the Fall (84.2%) and Spring (84.1%).

Figure 4 Citizenship Outcome Frequency Chart

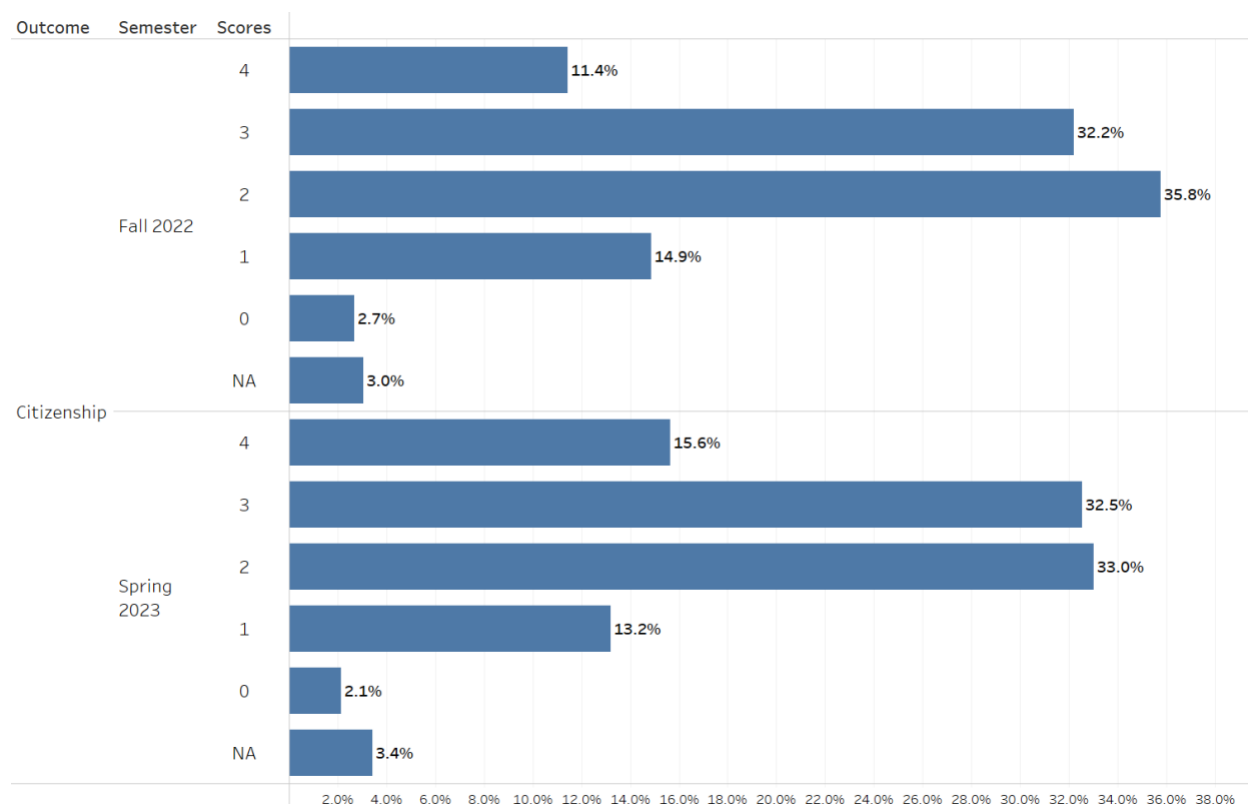
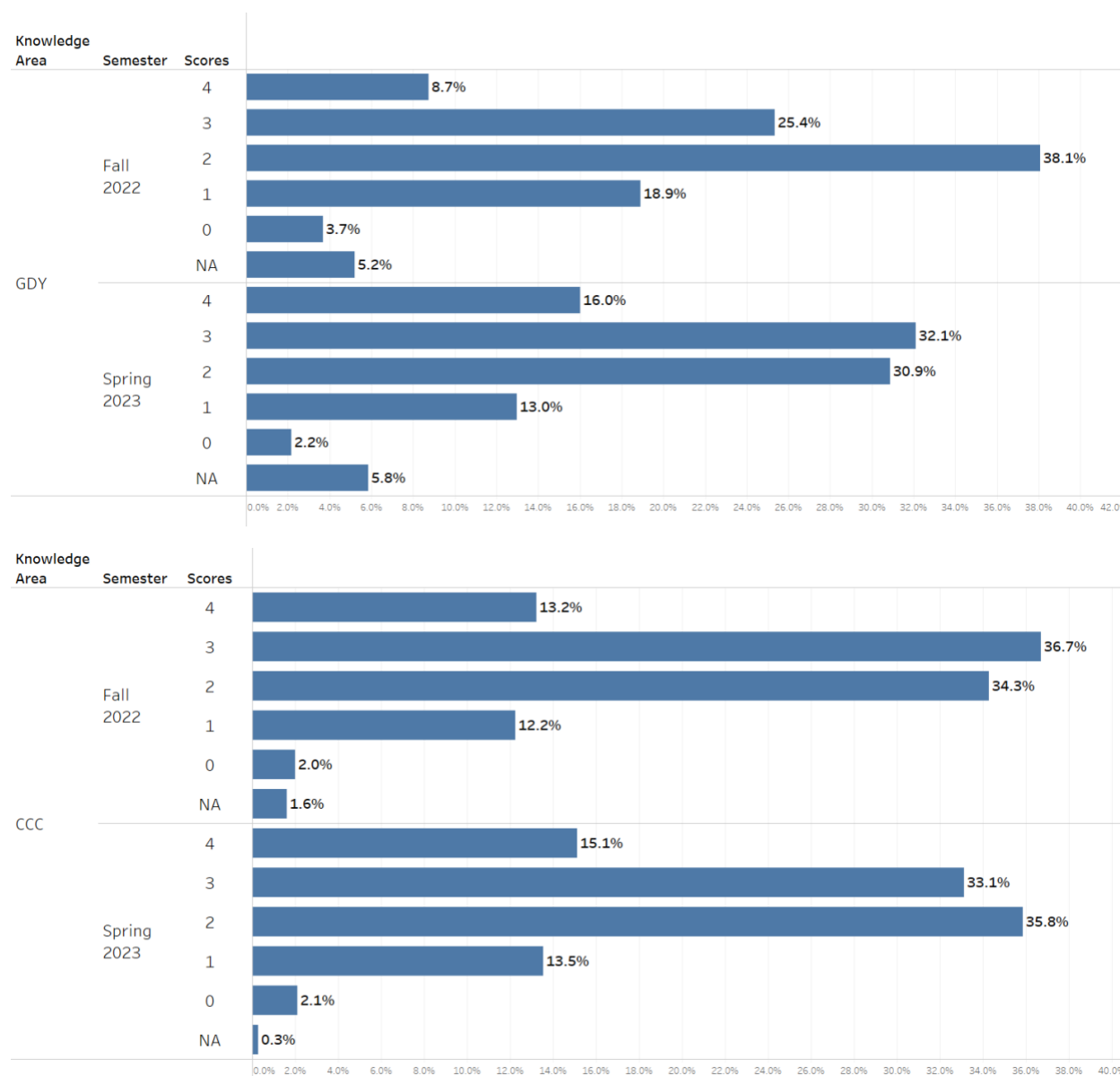




Figure 5 Citizenship Knowledge Areas Frequency Chart



Composition & Communication

The rubric for Composition & Communication uses a five-point scale ranging from 0 to 4 to score student work: 0 = Incomplete; 1= benchmark; 2 and 3 = milestone; and 4 = capstone. Evaluators could score rubric criteria as N/A for samples in each Knowledge Area.

Composition & Communication averages consistently fell in the 'Milestone' category (see Figure 6). In Fall and Spring, average scores were 2.6 at the outcome level. Broken out at the Knowledge Area level (see Figure 7), CC1 and CC2 showed similar results across areas and semesters; scores for both ranged from 2.5 to 2.6.



Figure 6 Average Composition & Communication Outcome Scores

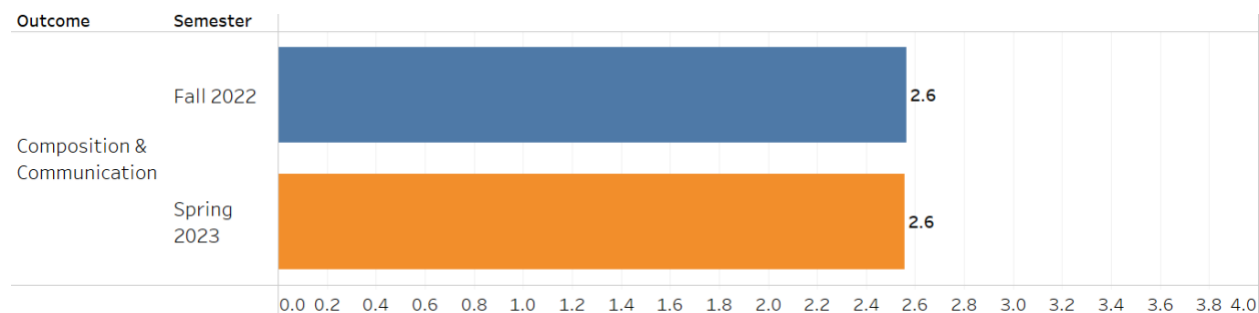
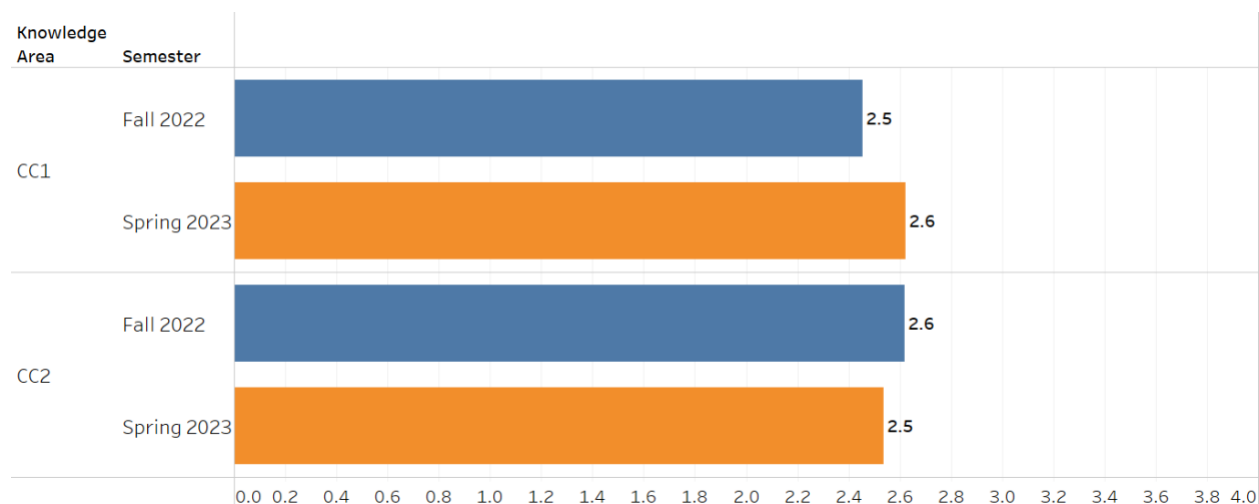


Figure 7 Average Composition & Communication Knowledge Area Scores



A rubric criteria analysis provides valuable insight into students' performance and shows underlying trends in each Knowledge Area (see Table 4). Averages for criteria one through six were relatively consistent and students indicated that they are meeting milestones within CC1 and CC2. However, average scores for the remaining criteria (6.1-6.3) show wide variability, with average scores ranging from 1.8 to 3.5. Students were scoring highest in visual communication and showed declining scores in Spring for oral communication. However, that should be interpreted with caution because very few artifacts were oral or visual.

Table 4 Composition & Communication Criteria Averages

		Fall 2022	Spring 2023
CC1	1. Construct intelligible messages.	2.7	2.8
	2. Construct messages with sound evidence.	2.2	2.5
	3. Construct messages with sound reasoning.	2.5	2.6
	4. Construct messages appropriate for audience.	2.4	2.6
	5. Construct messages appropriate for purpose.	2.4	2.6
	6. Construct message for selected form.	2.4	2.7
	6.1 Written Assignment ONLY.	2.1	2.4
	6.2 Oral Assignment ONLY.	2.7	1.8
	6.3a Visual Assignment ONLY	3.0	3.0
	6.3b Visual Assignment ONLY	2.7	2.9
	6.3c Visual Assignment ONLY	2.8	2.7
	6.3d Visual Assignment ONLY	2.9	2.4
	6.3e Visual Assignment ONLY	3.4	3.0
CC2	1. Construct intelligible messages.	2.9	2.7
	2. Construct messages with sound evidence.	2.5	2.4
	3. Construct messages with sound reasoning.	2.6	2.6
	4. Construct messages appropriate for audience.	2.6	2.6
	5. Construct messages appropriate for purpose.	2.6	2.5
	6. Construct message for selected form.	2.7	2.6
	6.1 Written Assignment ONLY.	2.4	2.3
	6.2 Oral Assignment ONLY.	2.6	2.5
	6.3a Visual Assignment ONLY	2.6	2.8
	6.3b Visual Assignment ONLY	2.8	3.0
	6.3c Visual Assignment ONLY	2.5	2.3
	6.3d Visual Assignment ONLY	2.5	2.1
	6.3e Visual Assignment ONLY	3.5	3.0

A score distribution chart helps explain this variability (see Table 9 and Table 10 in Appendix 5). Among CC1's first six criteria, the percentage of students scoring either a two, three, or four ranged from 93.6% in Fall to 81.8% in Spring. Some areas to review include student's use of evidence and aware of audience. CC2 offered similarly strong results, with at least 87% of students receiving a 2-4 score on the first six criteria over the Fall and Spring terms. Performance was stronger in CC2 than CC1, but an area for improvement could include student's overall construction in written assignments.

Assessment results for Criteria 6.1-6.3e are based on a subsample of assignments because instructors only need to submit assignments aligned to the written, oral, or visual rubric criteria, leaving evaluators to score unrelated criteria (6.1-6.3e) as NA. Frequent NA scores occur because Composition & Communication instructors only need to submit assignments aligned to the written, oral, or visual rubric criteria, leaving evaluators to score the related criteria (6.1a-6.3e) as NA if the assignment did not apply. Ultimately, written assignments were the most common with the lowest percentage of NA scores (11%), followed by oral assignments (57.8%),

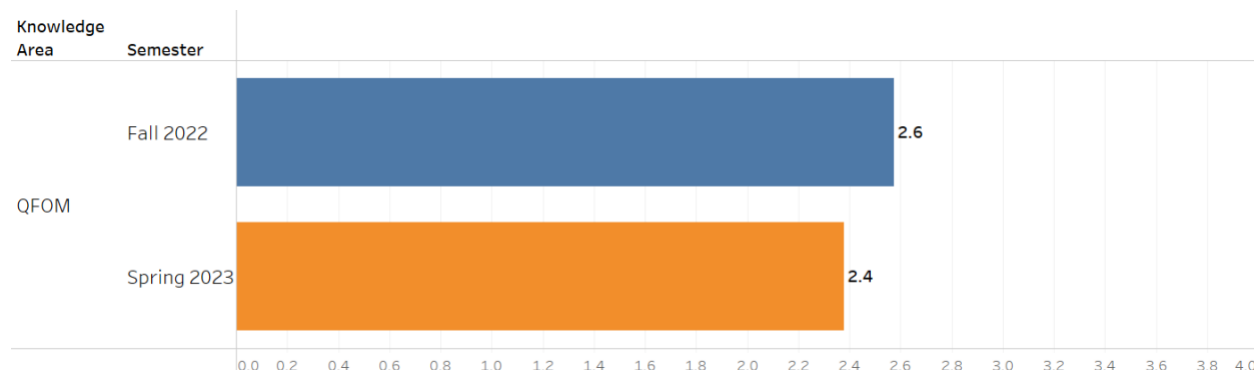
while visual assignments were the least common and had the highest percentage of NA criterion scores (90.8%).

Quantitative Reasoning

Each Knowledge Area of Quantitative Reasoning uses a different rubric. The Statistical Inferential Reasoning (SIR) rubric uses a five-point scale to score student work: 0 = No evidence; 1 = Does not meet standard; 2 = Nearly meets standard; 3 = Meets standard; and 4 = Exceeds standard. The Quantitative Foundations – Math (QFOM) rubric has a five-point scale: 0 = below Benchmark; 1 = Benchmark; 2 and 3 = Milestones; and 4 = Capstone, while the Quantitative Foundations – Non-Math (QFON) rubric relies on a three-point scale: 1 = Does not meet expectations, 2 = Meets expectations, and 3 = Exceeds expectations. Evaluators could score rubric criteria as N/A for samples in each Knowledge Area.

Average QFOM scores were relatively consistent across the Fall and Spring semesters (see Figure 8). On a four-point scale, averages ranged from 2.6 in Fall 2022 to 2.4 in Spring 2023, placing average student performance at the ‘Milestones’ level. For a more detailed view, the distribution of scores shows that 87.7% of students received a two, three, or four in Fall compared to 75.6% in the Spring. The results suggest that on average, students performed at the ‘Milestones’ level or higher across semesters.

Figure 8 Average Quantitative Foundations (Math) Knowledge Area Scores



Disaggregating to the criterion level (see Table 5) shows that students performed well in the ‘Calculation’ and ‘Interpretation’ criteria in the Fall, with average scores of 2.8. Similarly, the ‘Calculation’ criterion had the highest average Spring score at 2.6. The ‘Assumptions’ criterion’s average was the lowest for Fall and Spring, with scores of 2.2 and 1.9, respectively. The frequency distribution for ‘Assumptions’ illustrates the lowest averages, with 32.3% of scores being either a one or NA in the Fall and 56.8% being one or NA in the Spring.

Table 5 Quantitative Foundations (Math) Criteria Averages

Area	Criteria	Fall 2022	Spring 2023
QFOM	Application / Analysis	2.4	2.2
	Assumptions	2.2	1.9
	Calculation	2.8	2.6
	Communication	2.5	2.4
	Interpretation	2.8	2.5
	Representation	2.7	2.5

The Fall and Spring average QFON score of 2.0 on the three-point rubric scale shows students meeting expectations (see Figure 9). At the criterion level, average scores remained at 2.0 across semesters, suggesting students consistently met expectations (see Table 6).

Figure 9 Average Quantitative Foundations (Non-Math) Knowledge Area Scores

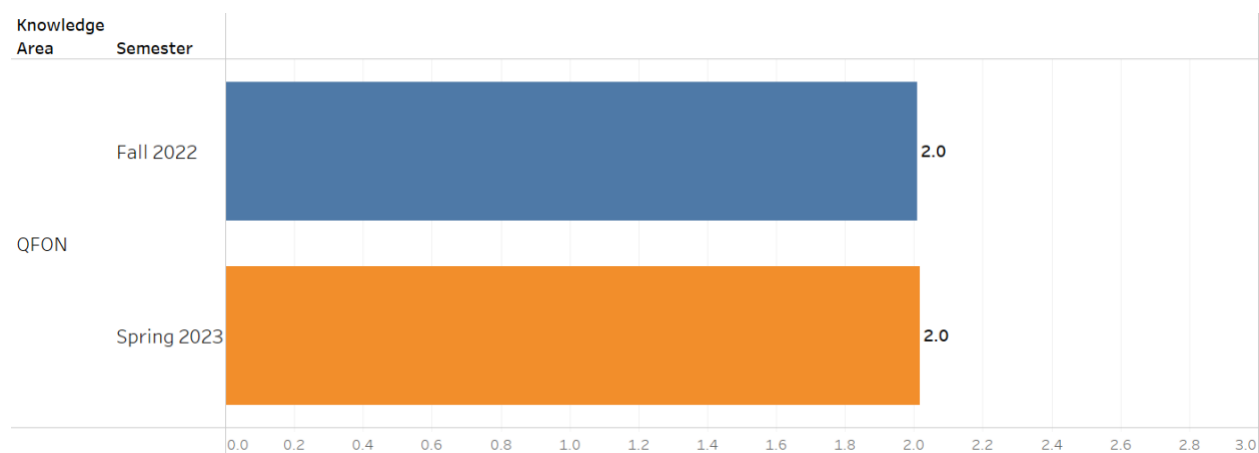
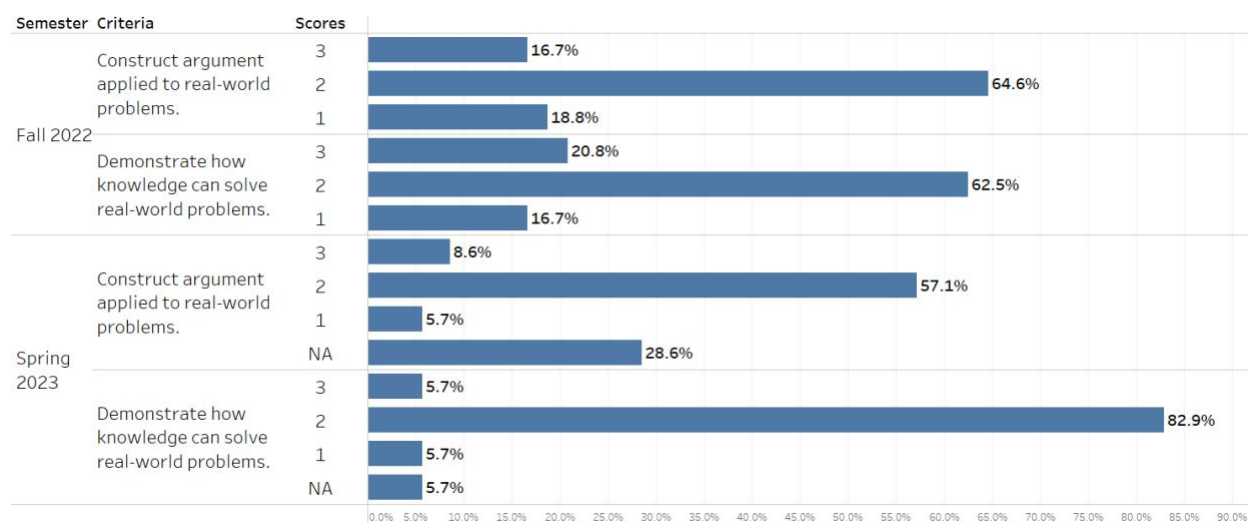


Table 6 Quantitative Foundations (Non-Math) Criteria Averages

Knowledge Area	Criteria	Fall 2022	Spring 2023
QFON	Construct argument applied to real-world problems.	2.0	2.0
	Demonstrate how knowledge can solve real-world problems.	2.0	2.0

The distribution of scores across criteria and semesters reveals insightful trends (see Figure 10). In all but one case, over 81% of scores given were either a two (meet expectations) or three (exceeds expectations). One notable outlier is the Spring criterion, ‘Construct argument applied to real-world problems.’ This criterion had the highest share of NAs given by evaluators (28.6%), meaning evaluators determined that over one-quarter of Spring QFON assignments did not relate to constructing arguments applied to real-world problems. This doesn’t reflect on the performance of students rather the need to ensure students have the opportunity to demonstrate performance in their courses.

Figure 10 Quantitative Foundations (Non-Math) Knowledge Area Frequency Chart



Average SIR scores approached ‘Meet Standard.’ The Fall average was 2.8, while Spring performance increased to 2.9. At the criterion level, averages ranged from 2.6 to 3.0, staying near or at ‘Meets Standard’ (see Figure 11).

Figure 12 illustrates that, across both semesters, the ‘Life Application’ and ‘Problem Solving’ criteria had the highest scores. While ‘Evaluate Arguments’ average scores were robust, they were the lowest, with a 2.6 average in Fall and a 2.8 average in Spring. The distribution of SIR scores shows Fall students received a noticeably higher percentage of NA scores than Spring

(9.1% vs 1.4%). However, in both cases, the percentage of students receiving a two, three, or four was high (83.8% - Fall and 94.3% - Spring).

Figure 11 Average Statistical Inferential Reasoning Knowledge Area Scores

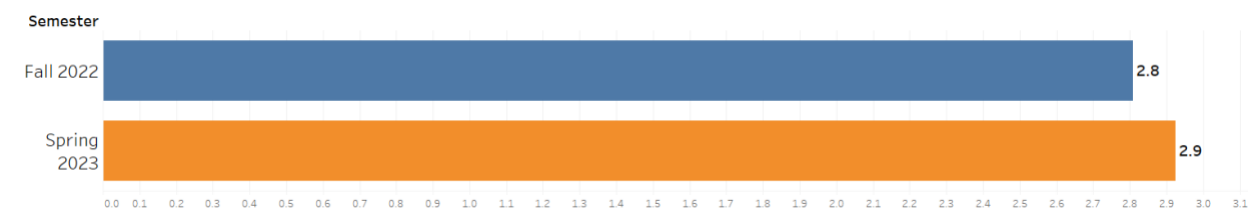
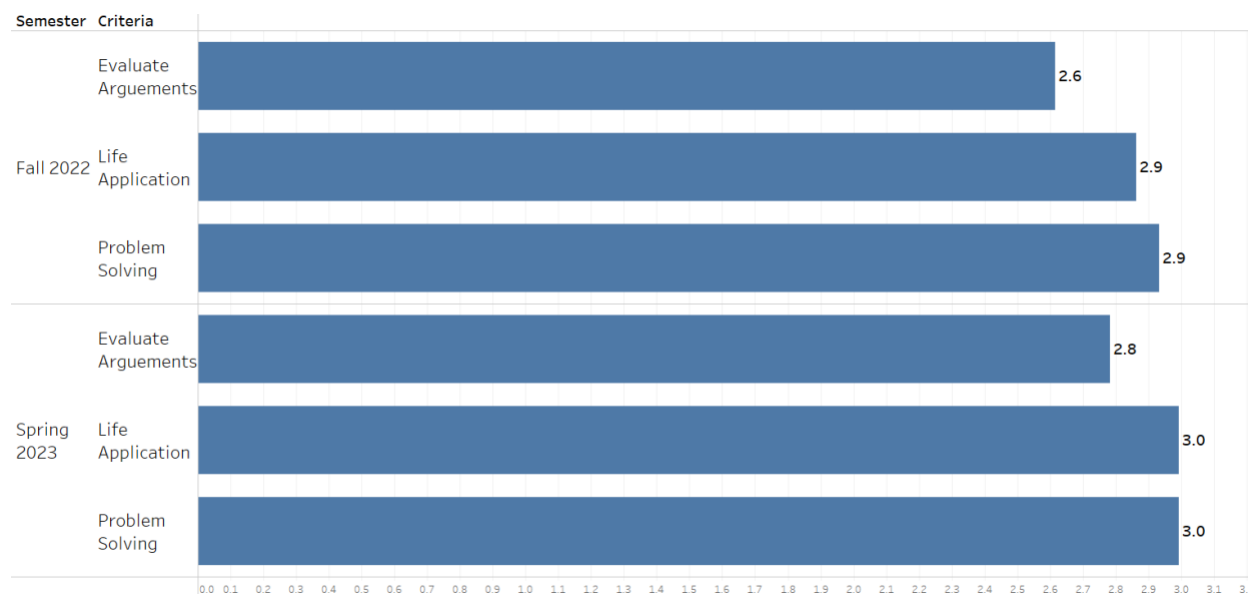


Figure 12 Statistical Inferential Reasoning Criteria Averages



DISCUSSION

The 2022-23 Core assessment results provided valuable insight into student achievement. Generally, student performance fell between a developing and highly developed standard or equivalent range (e.g., Milestone) across semesters, criteria, and knowledge areas.

Average Citizenship scores experienced little change from the 2020-21 assessment cycle. Average scores also landed between ‘Developing’ and ‘Highly Developed’. Similarly, previous averages for Composition & Communication were within the ‘Milestone’ range. QFOM average performance declined from the 2021-22 assessment cycle, but performance fell firmly within the ‘Milestones’ range in both cases. Only one semester of earlier data was available for QFON (Fall 2021) and SIR (Fall 2018). However, the average performance remained relatively consistent, staying at or near the meeting expectation rubric level (see Appendix 6 for previous scores).

The 2022-23 assessment cycle also showcased improvement in two longstanding areas of interest: participation and assignment alignment. Through a strategic information campaign, the university increased participation in Core assessment compared to earlier cycles (see Appendix 7). Participation increased, sometimes dramatically, in SIR, QFO, GDY, and CCC compared to

the last semester the Knowledge Areas were previously assessed. SIR experienced the largest percentage increase from Spring 2019 (11%) to Spring 2023 (88%). CC2 and CC1 (Spring) participation rates remained constant, while CC1 (Fall) had a slight decline (100% in Fall 2020 to 80% Fall 2022).

This cycle's assessment results also show progress regarding assignment alignment. Ideally, assignments selected for assessment should collectively align with all the related Core outcomes. The 2021-22 results showed alignment as an area for growth. In total, 12.5% of evaluators' scores were NA in 2021-22, meaning the assignment did not provide students an opportunity to demonstrate the associated outcome(s).

However, this assessment cycle saw the NA scores as a percent of total scores decline to 3.4%. Composition & Communication criteria 6.1 - 6.3 scores were excluded from this analysis because instructors were not asked to align assignments to each criterion (written, oral, and visual). Although the cycles assessed different outcomes, the sharp decline suggests efforts to improve alignment are seeing success.

Enhanced assignment alignment and participation rates continue to be priorities for the UK Core. In a current initiative, OSPIE and the UKCEC created course shells in the Canvas Learning Management System for each Core outcome. Core course instructors for the upcoming semester will be added to their associated Core course shell, where they will have access to information detailing the assessment process, how to map outcomes to assignments, and exemplar assignments to serve as templates. These assignments were specifically highlighted by Core evaluators as being well aligned to the Core outcomes during feedback sessions.

Additionally, the Center for the Enhancement of Learning and Teaching (CELT) and the UKCEC chair are in talks to host events targeted towards Core instructors with topics such as designing and creating effective assignments, instructions, and Core courses.

OSPIE will also review evaluators' feedback from the post-assessment survey. The survey asked for constructive feedback on artifact quality, norming sessions, the overall process, and Core rubrics. The comments provide beneficial information concerning how we might increase alignment, participation, and interrater agreement.

After submitting this report, OSPIE will create dashboards that visualize each department's 2022-2023 assessment results and ask that departments review the assessment result to determine how the assessment results can be used to improve students' performance. Moreover, colleges and departments can review how previous changes might have affected their results and create an action plan for future assessment cycles, ultimately helping them close the loop.

APPENDIX 1

Table 7 Map of UK Core Outcomes to Kentucky Statewide Learning Outcomes

UK Core Outcome	Statewide Learning Outcome	Rationale
Intellectual Inquiry	Arts & Humanities	Intellectual Inquiry courses establish a foundation for critical and thoughtful approaches to solving problems and promoting intellectual development in the following areas: Arts & Creativity, Humanities, Natural / Physical / Mathematical Sciences, and Social Sciences. This outcome area promotes the development of evidence-based thinkers: students capable of understanding what critical argument demands and what it offers as a way of understanding ourselves, others, and the world around us.
	Natural Sciences	
	Social and Behavioral Sciences	
Composition & Communication	Written & Oral Communication	Both outcomes address communicating in a variety of forms and contexts with an emphasis on information literacy and critical analysis.
Citizenship	Social & Behavioral Sciences	The UK Core and statewide outcomes overlap in asking students to analyze problems pertinent to human experience. The UK Core area outcome is particularly focused on historical and cultural differences arising from a variety of human dynamics and experiences. This is one of two UK Core area outcomes that map to the statewide outcome.
Quantitative Reasoning	Quantitative Reasoning	Quantitative Reasoning courses cover areas of Quantitative Foundations and Statistical Inferential Reasoning. Through these courses, students interpret, illustrate, and analyze information in mathematical and statistical forms.

APPENDIX 2

Table 8 Evaluators' College and Department Breakdown

<i>Instructor College</i>	<i>Instructor Department</i>
<i>Ag, Food and Environment</i>	Agricultural Economics Center for Student Success Community & Leadership Development Family Sciences Landscape Architecture
<i>Arts and Sciences</i>	Anthropology College of Arts & Sciences English Gender and Women's Studies Geography History Linguistics Department Mathematics Modern & Classical Lang, Lit & Cultures Sociology Statistics Writing, Rhetoric and Digital Studies
<i>Communication and Information</i>	Center for Instructional Communication CIS Graduate Studies Communication School of Information Science
<i>Education</i>	Education Curriculum & Instruction Educational Leadership Studies Educational Policy Studies and Evaluation Educational, School and Counseling Psych Kinesiology - Health Promotion
<i>Engineering</i>	College of Engineering
<i>Fine Arts</i>	Fine Arts - Music Fine Arts - Theatre Arts Musicology School of Art and Visual Studies
<i>Graduate School</i>	Martin School of Public Administration
<i>Honors College</i>	Lewis Honors College
<i>Public Health</i>	Dept Of Biostatistics

APPENDIX 3

Table 8 Criterion Level Interrater Agreement

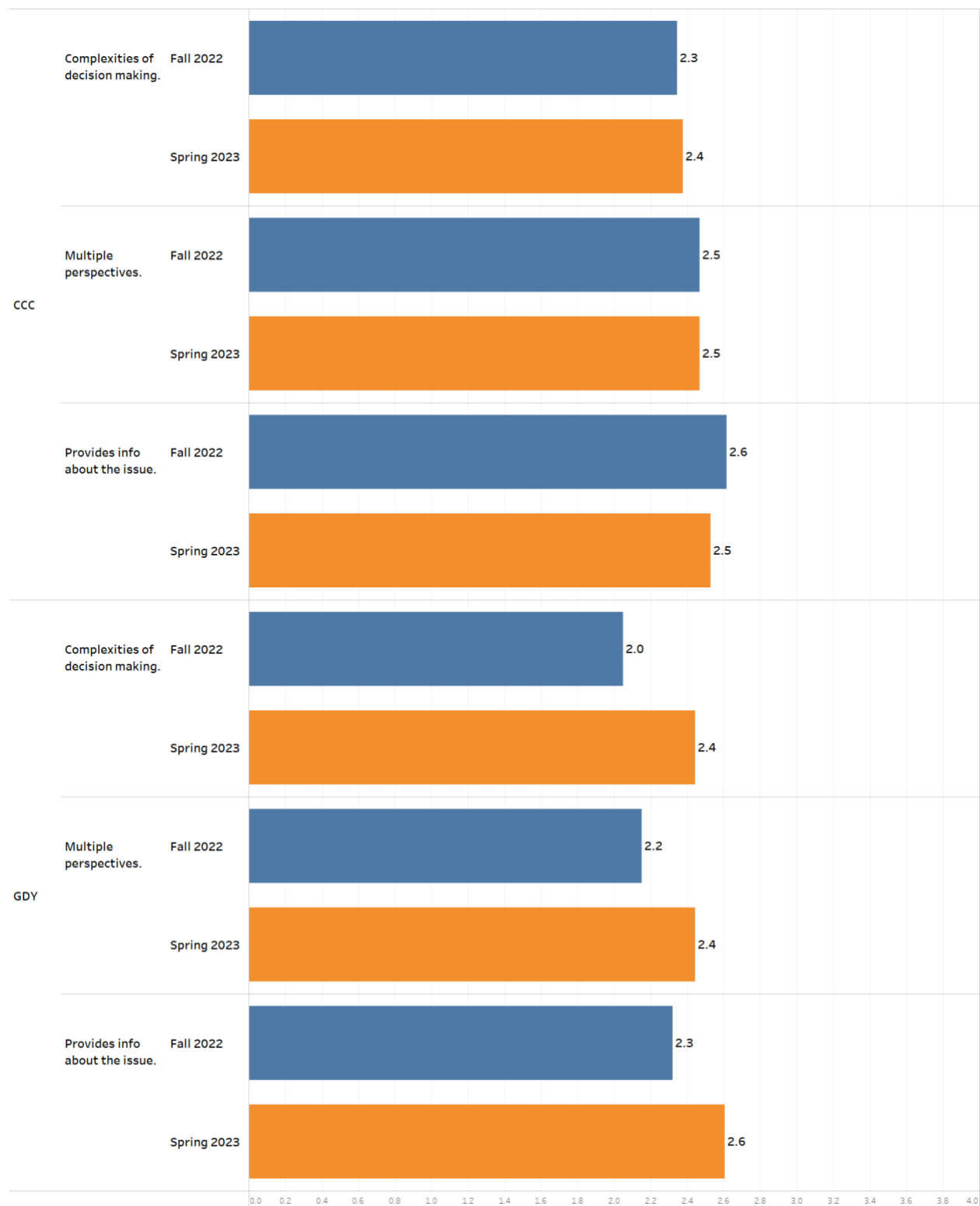
OUTCOMES	KA	CRITERIA	FALL 2022		SPRING 2023	
			Exact %	+/- 1 %	Exact %	+/- 1 %
CITIZENSHIP	CCC	1. Provides information about the issue	20.0%	84.0%	30.2%	86.0%
		2. Multiple perspectives	40.0%	78.0%	39.5%	93.0%
		3. Complexities of decision making	26.0%	72.0%	39.5%	86.0%
	GDY	1. Provides information about the issue	16.1%	67.7%	30.9%	72.7%
		2. Multiple perspectives	19.4%	45.2%	23.6%	70.9%
		3. Complexities of decision making	12.9%	61.3%	32.7%	74.5%
COMPOSITION & COMMUNICATION	CC1	1. Construct intelligible messages	35.0%	80.0%	40.0%	100.0%
		2. Construct messages with sound evidence	35.0%	60.0%	40.0%	80.0%
		3. Construct messages with sound reasoning	30.0%	75.0%	20.0%	100.0%
		4. Construct messages appropriate for specified audience	25.0%	70.0%	20.0%	100.0%
		5. Construct messages appropriate for specified purpose	30.0%	80.0%	20.0%	100.0%
		6. Construct message effectively for selected form (written, oral, and/or visual)	20.0%	75.0%	40.0%	100.0%
		6.1 Written Assignment ONLY	40.0%	75.0%	60.0%	100.0%
		6.2 Oral Assignment ONLY	65.0%	90.0%	100.0%	100.0%
		6.3a Visual Assignment 1	60.0%	60.0%	100.0%	100.0%
		6.3b Visual Assignment 2	55.0%	55.0%	100.0%	100.0%
		6.3c Visual Assignment 3	55.0%	60.0%	100.0%	100.0%
		6.3d Visual Assignment 4	50.0%	55.0%	100.0%	100.0%
		6.3d Visual Assignment 5	65.0%	65.0%	100.0%	100.0%
	CC2	1. Construct intelligible messages	40.0%	80.0%	44.4%	94.4%
		2. Construct messages with sound evidence	40.0%	100.0%	50.0%	88.9%
		3. Construct messages with sound reasoning	40.0%	90.0%	33.3%	94.4%
		4. Construct messages appropriate for specified audience	30.0%	70.0%	61.1%	88.9%
		5. Construct messages appropriate for specified purpose	30.0%	100.0%	33.3%	88.9%
		6. Construct message effectively for selected form (written, oral, and/or visual)	40.0%	80.0%	44.4%	88.9%
		6.1 Written Assignment ONLY	20.0%	80.0%	38.9%	83.3%
		6.2 Oral Assignment ONLY	70.0%	90.0%	77.8%	94.4%
		6.3a Visual Assignment 1	100.0%	100.0%	83.3%	83.3%
		6.3b Visual Assignment 2	100.0%	100.0%	83.3%	83.3%
		6.3c Visual Assignment 3	100.0%	100.0%	83.3%	83.3%
		6.3d Visual Assignment 4	100.0%	100.0%	83.3%	83.3%

**QUANTITATIVE
REASONING**

		6.3d Visual Assignment 5	100.0%	100.0%	88.9%	88.9%
QUANTITATIVE REASONING	QFOM	Application / Analysis	16.7%	100.0%	25.0%	75.0%
		Assumptions	66.7%	66.7%	50.0%	62.5%
		Calculation	33.3%	83.3%	25.0%	75.0%
		Communication	33.3%	83.3%	37.5%	75.0%
		Interpretation	66.7%	83.3%	50.0%	87.5%
		Representation	66.7%	83.3%	50.0%	75.0%
	QFON	Evaluation	60.0%	100.0%	50.0%	75.0%
		Problem Solving	60.0%	100.0%	50.0%	50.0%
	SIR	Evaluate arguments	42.1%	78.9%	42.9%	85.7%
		Problem Solving	31.6%	78.9%	50.0%	92.9%
		Life application	31.6%	84.2%	57.1%	92.9%

APPENDIX 4

Figure 2 Average Global Dynamics and Community Culture and Citizenship in the U.S.A. criteria scores





APPENDIX 5

Table 9 Composition & Communication I Knowledge Area Frequency Table

Knowledge Area	Criteria	Semester	4	3	2	1	0	NA
CC1	1. Construct intelligible messages.	Fall 2022	11.8%	58.2%	23.6%	5.5%	0.9%	
		Spring 2023	25.5%	38.2%	27.3%	9.1%		
	2. Construct messages with sound evidence.	Fall 2022	5.5%	34.5%	43.6%	10.9%	5.5%	
		Spring 2023	10.9%	43.6%	27.3%	12.7%	3.6%	1.8%
	3. Construct messages with sound reasoning.	Fall 2022	7.3%	40.9%	45.5%	6.4%		
		Spring 2023	14.5%	38.2%	38.2%	7.3%		1.8%
	4. Construct messages appropriate for audience.	Fall 2022	5.5%	47.3%	31.8%	12.7%	0.9%	1.8%
		Spring 2023	10.9%	47.3%	30.9%	10.9%		
	5. Construct messages appropriate for purpose.	Fall 2022	3.6%	41.8%	42.7%	9.1%	0.9%	1.8%
		Spring 2023	12.7%	49.1%	27.3%	10.9%		
	6. Construct message for selected form.	Fall 2022	10.0%	29.1%	51.8%	8.2%		0.9%
		Spring 2023	14.5%	50.9%	25.5%	7.3%		1.8%
	6.1 Written Assignment ONLY.	Fall 2022	3.6%	28.2%	27.3%	23.6%	1.8%	15.5%
		Spring 2023	7.3%	36.4%	36.4%	10.9%		9.1%
	6.2 Oral Assignment ONLY.	Fall 2022	9.1%	27.3%	11.8%	2.7%	3.6%	45.5%
		Spring 2023		1.8%	7.3%		1.8%	89.1%
	6.3a Visual Assignment ONLY	Fall 2022	1.8%	8.2%	1.8%			88.2%
		Spring 2023	7.3%	7.3%	7.3%			78.2%
	6.3b Visual Assignment ONLY	Fall 2022		8.2%	1.8%	0.9%		89.1%
		Spring 2023	3.6%	9.1%	1.8%	1.8%		83.6%
	6.3c Visual Assignment ONLY	Fall 2022	1.8%	3.6%	1.8%	0.9%		91.8%
		Spring 2023	1.8%	3.6%	5.5%			89.1%
	6.3d Visual Assignment ONLY	Fall 2022	1.8%	6.4%	2.7%			89.1%
		Spring 2023		7.3%	9.1%			83.6%
	6.3e Visual Assignment ONLY	Fall 2022	1.8%	2.7%				95.5%
		Spring 2023	1.8%	12.7%	1.8%			83.6%



Table 10 Composition & Communication II Knowledge Area Frequency Table

Knowledge Area	Criteria	Semester	4	3	2	1	0	NA
CC2	1. Construct intelligible messages.	Fall 2022	15.9%	60.9%	15.9%	4.8%	1.4%	1.0%
		Spring 2023	11.5%	56.3%	22.4%	7.3%		2.6%
	2. Construct messages with sound evidence.	Fall 2022	11.6%	43.0%	33.8%	8.2%	2.4%	1.0%
		Spring 2023	4.7%	43.8%	38.0%	9.4%	1.0%	3.1%
	3. Construct messages with sound reasoning.	Fall 2022	8.7%	48.3%	35.3%	5.8%	1.0%	1.0%
		Spring 2023	9.4%	41.1%	42.7%	4.7%		2.1%
	4. Construct messages appropriate for audience.	Fall 2022	15.9%	44.4%	27.1%	10.1%	1.4%	1.0%
		Spring 2023	10.9%	43.8%	34.4%	8.3%		2.6%
	5. Construct messages appropriate for purpose.	Fall 2022	10.6%	48.8%	28.0%	10.6%	1.0%	1.0%
		Spring 2023	8.3%	40.6%	40.6%	7.8%	0.5%	2.1%
	6. Construct message for selected form.	Fall 2022	12.1%	50.2%	31.4%	4.8%	1.0%	0.5%
		Spring 2023	8.3%	49.0%	33.9%	5.7%		3.1%
	6.1 Written Assignment ONLY.	Fall 2022	6.8%	36.2%	31.9%	14.5%	1.4%	9.2%
		Spring 2023	5.2%	30.2%	42.7%	10.4%	0.5%	10.9%
	6.2 Oral Assignment ONLY.	Fall 2022	6.3%	20.8%	14.0%	0.5%	2.9%	55.6%
		Spring 2023	1.6%	16.7%	22.4%	1.0%		58.3%
	6.3a Visual Assignment ONLY	Fall 2022	2.4%	5.8%	2.4%	1.0%	1.0%	87.4%
		Spring 2023		3.6%	1.0%			95.3%
	6.3b Visual Assignment ONLY	Fall 2022		11.1%	1.4%	0.5%		87.0%
		Spring 2023		4.2%				95.8%
	6.3c Visual Assignment ONLY	Fall 2022		5.8%	5.8%			88.4%
		Spring 2023		1.6%	2.1%	0.5%		95.8%
	6.3d Visual Assignment ONLY	Fall 2022	1.0%	6.3%	3.9%	1.0%	0.5%	87.4%
		Spring 2023		0.5%	3.6%			95.8%
	6.3e Visual Assignment ONLY	Fall 2022	5.3%	4.3%	0.5%			89.9%
		Spring 2023		3.6%				96.4%

APPENDIX 6

Table 10 Previous Criteria Scores for Citizenship

Outcome	Knowledge Area	Criteria	Semester	Average
Citizenship	CCC	Provides information	Fall 2020	2.38
			Spring 2021	2.87
		Multiple perspectives	Fall 2020	2.25
			Spring 2021	2.68
		Complexities of decision making	Fall 2020	2.37
			Spring 2021	2.74
	GDY	Provides information	Fall 2020	2.35
			Spring 2021	2.60
		Multiple perspectives	Fall 2020	2.20
			Spring 2021	2.31
		Complexities of decision making	Fall 2020	2.04
			Spring 2021	2.40

Table 11 Previous Criteria Scores for Composition & Communication

Outcome	Knowledge Area	Criteria	Semester	Average
Composition & Communication	CC1	Intelligible messages	Fall 2020	2.76
			Spring 2021	2.53
		Sound evidence	Fall 2020	2.48
			Spring 2021	2.22
		Sound reasoning	Fall 2020	2.39
			Spring 2021	2.32
		Specified audience	Fall 2020	2.64
			Spring 2021	2.47
		Specified purpose	Fall 2020	2.66
			Spring 2021	2.31
		Selected form	Fall 2020	2.65
			Spring 2021	2.30
	CC2	Intelligible messages	Fall 2020	2.78
			Spring 2021	2.57
		Sound evidence	Fall 2020	2.51
			Spring 2021	2.15
		Sound reasoning	Fall 2020	2.56
			Spring 2021	2.28
		Specified audience	Fall 2020	2.65
			Spring 2021	2.47
		Specified purpose	Fall 2020	2.60
			Spring 2021	2.42
		Selected form	Fall 2020	2.75
			Spring 2021	2.44



Table 12 Previous Scores for Quantitative Reasoning

Outcome	Knowledge Area	Semester	Average Scores
Quantitative Reasoning	QFOM	Fall 2021	3.1
		Spring 2022	2.8
	QFON	Fall 2021	1.9
	SIR	Fall 2018	2.6

APPENDIX 7

Table 13 Past Participation Rates

KA	AY	Semester	Courses Offered	Courses that mapped & had usable artifacts	Current cycle participation rate
<i>SIR</i>	2018-2019	Fall	11	3 (27%)	83%
	2018-2019	Spring	9	1 (11%)	88%
<i>QFO</i>	2021-2022	Fall	8	5 (63%)	75%
	2021-2022	Spring	6	3 (50%)	86%
<i>GDY</i>	2020-2021	Fall	36	11 (31%)	42%
	2020-2021	Spring	38	23 (61%)	70%
<i>CCC</i>	2020-2021	Fall	28	10 (36%)	72%
	2020-2021	Spring	36	17 (47%)	68%
<i>CC1</i>	2020-2021	Fall	3	3 (100%)	80%
	2020-2021	Spring	3	2 (67%)	67%
<i>CC2</i>	2020-2021	Fall	4	4 (100%)	100%
	2020-2021	Spring	4	4 (100%)	100%