

2022–2023 Student Learning Assessment Report Minerva's Academic Curriculum

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Introduction

This report presents and interprets data on student learning in UNC Greensboro's general education program (Minerva's Academic Curriculum, MAC) collected over the course of the 2022-2023 academic year.

The general education assessment cycle for the 2022-2023 academic year focused on collecting data from 7 of the 11 MAC competencies:

Critical Thinking & Inquiry in the Humanities/Fine Arts Critical Thinking & Inquiry in the Social & Behavioral Sciences

Critical Thinking & Inquiry in the Natural Sciences Diversity & Equity Global Engagement & Intercultural Learning Quantitative Reasoning Written Communication

Student achievement was assessed using the courseembedded process in use at UNC Greensboro since 2011. This faculty-developed process has three parts:

- Participating course instructors score their students' work using the official rubric for a given MAC competency.
- Peer faculty apply the same rubric to a sample of students' work collected from all participating course instructors.
- 3. Results are collected, aggregated, and presented to the University at forums and in a published report.

This report begins with a general orientation to the MAC program and its assessment, followed by an overview of 2022-2023 MAC assessment findings. It closes with discussion on using this year's findings to support student learning and to enhance future assessment coordination.

For an executive summary of '22-23 findings and recommendations, readers may turn to page 7.

KEY TAKEAWAYS

- Most (>78%) students whose work was scored met or exceeded the level considered adequate for student learning after one introductory-level course in a given MAC competency.
- With the exception of Quantitative Reasoning, peer instructors consistently scored student achievement significantly lower than course instructors scored their students' work.
- 91% of participating course instructors plan to make adjustments to their MAC-related course assignments and/or lesson plans in coming semesters, in response to what they've learned.
- Participants find the MAC rubrics are useful tools for assignment design and assessment and suggest consistently sharing them with MAC course instructors.
- Participants suggest creating a MAC teaching materials repository where faculty and instructional staff who teach in the same MAC competency can share and view sample assignments and other course materials.

General Education at UNCG: Minerva's Academic Curriculum

Program Structure & Mission

The general education program at UNC Greensboro is Minerva's Academic Curriculum (MAC). MAC is the common curriculum of the University and engages students in foundational, competency-based learning the University deems essential to student success in college and beyond. Launched in the Fall 2021 term, the MAC program emphasizes 11 foundational competencies integrated into students' majors, fostering transferable skills for academics, career, and personal growth, while encouraging curiosity and broad knowledge acquisition. MAC is a total of 33 – 34 credits, which are included in the 120 credits students need to complete their undergraduate degrees. Students complete MAC by passing one 3-credit course in each of the 11 MAC competencies:

Foundations
Written Communication
Oral Communication
Quantitative Reasoning
Health & Wellness
Critical Thinking & Inquiry in the Humanities and Fine Arts
Critical Thinking & Inquiry in the Social & Behavioral Sciences
Critical Thinking & Inquiry in the Natural Sciences
Global Engagement & Intercultural Learning
Diversity & Equity
Data Analysis & Interpretation in the Natural Sciences

Though there is no required time to take MAC courses, students are advised to complete their MAC courses early in their college career, as they set foundations for achievement in upper-level major courses. More information about the MAC program can be found on the MAC website at mac.uncg.edu.

People Involved

MAC is UNCG's largest academic program, featuring 429 unique courses (as of August 2023), upwards of 345 faculty and staff instructors, and filling between 50,000 and 60,000 total seats each academic year. The faculty-led General Education Council is charged by Faculty Senate with the ongoing review and maintenance of the program goals, the assessment of student achievement of those goals, oversight of general education requirements, course approvals and recertifications, as well as student appeals for general education credit. The Council assesses student learning in general education courses with the support of the Office of Assessment, Accreditation, and Academic Program Planning (OAAAPP). Managing and reporting on the student learning assessment process is the particular responsibility of the Assessment Coordinator who serves as an ex officio member of the General Education program and is an OAAAPP staff member.

The Assessment Process

Student learning data in the MAC program is collected by means of course-embedded assessment procedures. This entails involving MAC course instructors as active participants in the assessment of students' achievement of the MAC SLOs. Course sections are selected for participation in MAC

assessment prior to the start of each academic term, and instructors are provided training and support throughout the term to complete their role in student learning assessment. In addition to student learning data collected by course instructors, assessment workshops co-hosted by the General Education Council and the OAAAPP invite peer faculty to score student work in a parallel process to that conducted by course instructors.

Course section selection

In the Fall 2022 and Spring 2023 terms, roughly 25% of instructional faculty and staff teaching course sections in the '22-23 focus competencies were asked to participate in MAC student learning assessment. Course section selection criteria included competency designation, delivery mode (in-person or online), disciplinary representation, and section size. The overall aim in selecting course sections to participate in MAC student learning assessment is to capture a representative sample of disciplines (or programs) and delivery modes, as well as a large enough student work sample to provide meaningful data. Following prior years' practice, roughly 20% of the total number of seats being offered in a focus competency were expected to participate in the sampling process in the Fall 2022 and Spring 2023 terms. For example, in fall 2022, one section from each of the following MAC Written Communication (MWC) courses was included in the sample:

RCO 101 College Writing I

PCS 215 Conflict Transformation

ENG 102 Academic Research and Writing

ENG 103 Essentials of Professional and Business Writing

SES 252 Survey of Learning and Behavior Differences

ENG 219 Journalism I: Fundamentals of Newswriting

FMS 115 Freshman Seminar: Writing

HSS 140 Honors Written Communication Seminar

In addition to these, five sections of ENG 101 Exploring Writing were included in the sample, given that 38 of the 68 Written Communication sections offered that term were ENG 101 sections.

This Written Communication sample covered all of the disciplines or programs offering sections in that competency in fall 2022. The sum total of seats offered that term was 1282, so the 20% seat sample equaled 256 seats. Since ENG 101 accounted for 66% of all seats offered in MWC that term, 144 seats were sampled from ENG 101 sections; the remaining seats came from the other courses listed above. Finally, since in that term 85% of Written Communication seats offered were in person and 15% online, 205 of the 256 seats included in the sample came from in-person sections, whereas 55 seats came from online sections.

Faculty and instructional staff participation

Since 2011, general education student learning at UNCG is assessed using a course-embedded process in conjunction with assessment workshops supplying peer validation (assessment.uncg.edu/academic/GenEd). Participating course instructors are asked to select one or more assignments they believe allow their students to demonstrate each of the MAC SLOs their course is designated to deliver. They score student submissions on those assignments using the assessment rubric for the given competency (see "The MAC Rubrics" below). They also supply

small samples of student work based on a random selection process. These samples are prepared for anonymous review and scored by peer instructional faculty and staff using the same assessment rubric. These peers are referred to as "peer validators" or "peer workshop reviewers". The peer validation process occurs at two-day annual or biannual assessment workshops coordinated by the Office of Assessment, Accreditation, and Academic Program Planning (OAAAPP). Course instructor and peer validator results are collected, aggregated, and presented at University forums and to the General Education Council. Feedback from these audiences is added to the final report that is published on the assessment.uncg.edu website.

In the 2022-2023 assessment cycle, synchronous and asynchronous training support was provided to participating instructors in the form of virtual one-on-one and small group meetings, an overview video, and written instructions. Video and instructions were included in a personalized Box folder made available to each instructor asked to participate in the sampling process.

Faculty and staff who participated as peer validators at the January 2023 and May 2023 assessment workshops received a group orientation and calibration training at the start of their respective workshop and were supported throughout the two-day event by on-site OAAAPP personnel and the General Education Council Chair.

The MAC rubrics

In spring 2020, UNCG faculty and staff experts developed student learning assessment rubrics for each of the 11 MAC competencies, to supply course instructors teaching in UNCG's new competency-based general education program with valuable tools for course and assignment design, as well as grading and assessment. Inspired by the AAC&U's VALUE Rubrics, these rubrics distribute student achievement across four levels and are prefaced by Definition and Framing Language sections meant to guide course design. These rubrics were used by all instructors involved in the 2022-2023 MAC assessment process and are included as appendices at the end of this report.

The four levels of achievement in the MAC rubrics run from Level 1 to Level 4, with Levels 2 and 3 considered Milestones from Level 1 (Benchmark) to Level 4 (Capstone) and signifying student progression toward mastery of the SLO in question. The General Education Council considers attainment of Level 2 (Milestone 1) as a sufficient achievement after completing a single-term, introductory-level course in any of the MAC competencies. In the first version of the MAC rubrics, which were used in the 2022-2023 assessment cycle, this progression is implicitly expressed in the descriptions of learning assigned to each level of learning for each MAC SLO.

Important to note is that all 11 MAC rubrics were refined by working groups of faculty and staff experts over the course of the 2022-2023 academic year. This work resulted in more consistent levels alignment across competencies, as well as clarification (in some cases) of the respective competency's SLOs and aims. These updated rubrics were endorsed by the General Education Council in May 2023 and can be found at mac.uncg.edu/outcomes. Since these refined rubrics were not yet available to instructors during the 2022-2023 academic year, all references to the MAC rubrics in the present report refer exclusively to the spring 2020 first versions of the rubrics, unless otherwise noted. These rubrics are included as Appendices to this report.

2022-2023 MAC Student Learning Assessment Results

Executive Summary

a. Overall satisfactory results

Taken as a whole, achievement data collected over the 2022-2023 academic year reflect acceptable outcomes for MAC student learning across the seven focus competencies for the 2022-2023 assessment cycle. As Table 1 shows, most students (78% or higher) met or exceeded Level 2 on the rubric. Meeting or exceeding Level 2 is set by the General Education Council as the goal for student learning after one introductory-level course in a given MAC competency.

b. Pronounced differences in scoring according to rater type

Despite the overall satisfactory results, disaggregating scores by the two rater types involved in the assessment process reveal pronounced differences in student achievement estimates. The two rater types are: (1) course instructors asked to score their own students' work ("course instructors") and (2) peer faculty who score a selection of the same student work in anonymized form ("peer validators"). As Table 2 shows, with the exception of Quantitative Reasoning, peer validators consistently scored student achievement lower than course instructors scored their own students' work. So, whereas Table 1 shows that an average 17% of students failed to meet or exceed the "Level 2 / Milestone 1" target, judging by peer validator scores alone, 26% of students failed to meet that target, as shown in Table 2.

Based on participant feedback, the scoring differences across rater groups can primarily be attributed to two factors: 1. varying familiarity with and use of the assessment rubrics in assignment design and scoring and 2. differing interpretations of the meaning of the achievement levels listed in the rubrics. This suggests a need for clarifying for all participants involved in the assessment process the meaning of the levels of achievement presented on the MAC rubrics. Specifically, MAC instructional faculty should be made more aware that meeting or exceeding Level 2 is considered by the General Education Council to be an acceptable goal for student achievement in an introductory-level general education course focused on a specific MAC competency.

Table 1. Average student learning achievement in the '22-23 focus competencies.

MAC Competency	Number of assignments scored	Level 4 Capstone	Level 3 Milestone 2	Level 2 Milestone 1	Level 1 Benchmark
Critical Thinking & Inquiry in the Humanities/Fine Arts	383	30%	29%	27%	14%
Critical Thinking & Inquiry in the Social & Behavioral Sciences	537	33%	27%	24%	17%
Critical Thinking & Inquiry in the Natural Sciences	112	18%	25%	35%	22%
Diversity & Equity	326	21%	30%	30%	19%
Global Engagement & Intercultural Learning	419	26%	29%	32%	13%

Quantitative Reasoning	304	4%	20%	60%	16%
Written Communication	129	23%	33%	28%	15%

Table 2. Course instructor and peer validator scores, 2022-2023 assessment cycle.

MAC Competency	Level 4	Level 3	Level 2	Level 1	
Critical Thinking & Inquiry in the Humanities/Fine Arts					
Course instructors (n=15)	37%	28%	25%	9%	
Peer validators (n=4)	12%	30%	32%	26%	
Critical Thinking & Inquiry in the Social &	Behavioral	Sciences			
Course instructors (n=10)	36%	28%	20%	16%	
Peer validators (n=4)	6%	20%	51%	23%	
Critical Thinking & Inquiry in the Natural S	Sciences				
Course instructors (n=4)	28%	34%	23%	15%	
Peer validators (n=3)	0%	8%	57%	35%	
Diversity & Equity					
Course instructors (n=10)	24%	31%	29%	16%	
Peer validators (n=3)	6%	23%	37%	34%	
Global Engagement & Intercultural Learn	ing				
Course instructors (n=26)	34%	31%	25%	10%	
Peer validators (n=7)	12%	26%	44%	18%	
Quantitative Reasoning					
Course instructors (n=8)	4%	14%	67%	15%	
Peer validators (n=2)	0%	53%	25%	22%	
Written Communication					
Course instructors (n=8)	27%	36%	26%	12%	
Peer validators (n=2)	14%	26%	35%	26%	

c. Interpreting "Unable to Rate" Scores

As Table 3 shows, peer validators marked an average of 23% of student work samples as "Unable to Rate" or "Not Ratable" because, in their judgment, the assignment prompts in question did not give students the opportunity to demonstrate their learning of the target MAC SLO. The causes of this mismatch may be multiple, ranging from discipline-specific conceptions of alignment to course instructors not having made sufficient adjustments to their course assignments post-transition to the MAC program (with its new SLOs). Even so, this estimate reveals there remains work to be done in course development to improve alignment between MAC SLOs and assignment designs, particularly in light of the recency of the transition from UNCG's old disciplinary and category-based general education program to its new competency-focused program.

Table 3. Peer validator "Unable to Rate" scores, 2022-2023.

MAC Competency	Number of assignments sampled	Number of assignments marked as "Unable to rate" or "Not ratable" by at least one peer validator
Critical Thinking & Inquiry in the	85	15
Humanities/Fine Arts		
Critical Thinking & Inquiry in the	94	16
Social & Behavioral Sciences		
Critical Thinking & Inquiry in the	40	1
Natural Sciences		
Diversity & Equity	126	83
Global Engagement &	221	20
Intercultural Learning		
Quantitative Reasoning	162	0
Written Communication	170	73

Some possible steps toward improving assignment/MAC SLO alignment include:

- distributing the MAC rubrics to faculty and instructional staff well ahead of the start of term, so that there is opportunity to adjust assignments to ensure strong alignment between prompts and outcomes;
- holding regular workshops where best practices for assignment design can be actively and collegially engaged; and
- creating an on-demand, peer-to-peer repository of assignment and lesson plan examples for MAC course designers and instructors to draw inspiration from.

Such efforts would help normalize future assessment scoring, reduce the number of assignments deemed unratable by peer validators, and support the creation of a stronger community of practice on campus surrounding teaching general education outcomes.

Judging by feedback from MAC instructional faculty and staff who participated in the '22-23 MAC assessment process, these efforts would be effective. Nearly all (91%) reported that they plan to make adjustments to one or more assignments or course elements in light of their participation in the assessment process, indicating strong interest in tending to the improvement or enhancement of students' experience of the MAC curriculum.

d. Participation consistent with recent years, could be higher

In total, 81 of 120 MAC course instructors expected to participate with their sections submitted scores and student work samples (see Table 4), equaling a 68% overall instructor participation rate in MAC student learning assessment activities. This rate is consistent with the participation rate reported in 2016-2017 (with a 69% participation from instructors asked to participate).

Table 4. Sections and participation rates, 2022-2023 assessment cycle.

MAC Competency	Total sections offered/term	Expected section participation	Actual participation	Participation rate
Critical Thinking & Inquiry in the	91 / Spring	21	15	71%
Humanities/Fine Arts	2023			

Critical Thinking & Inquiry in the	63 / Spring	16	9	56%
Social/Behavioral Sciences	2023			
Critical Thinking & Inquiry in the	24 / Spring	7	4	57%
Natural Sciences	2023			
Diversity & Equity	53 / Fall 2022	16	11	69%
Global Engagement & Intercultural	164 / 2023	36	26	72%
Learning				
Quantitative Reasoning	40 / Fall 2022	12	8	67%
Written Communication	67 / Fall 2022	14	9	65%

Based on feedback from several participating course instructors and department chairs, non-participation in the 2022-2023 year may partly be due to residual overwhelm coming out of the pandemic. The new general education program, Minerva's Academic Curriculum (MAC), was introduced in Fall 2021 and calls for varying degrees of revision to courses previously taught for GEC (General Education Core, UNCG's prior general education program). Course changes may not yet have been completed by overwhelmed faculty, disincentivizing participation in assessment of MAC student learning. There were also a handful of instructors who experienced health or family emergencies and could not participate.

Noteworthy is that some graduate student instructors and part-time faculty were unsure of their responsibility to participate in general education assessment. Of those who participated, some shared their surprise at being asked to participate in institutional assessment activities but were willing (and in some cases, pleased) to contribute, while others defended a belief that they should not be expected to participate in such activities, given that their departmental contracts do not explicitly stipulate such service. Insofar as they are responsible for delivering its curriculum, regularly reminding full- and part-time faculty and graduate student instructors, along with department heads, of this occasional, required service to the general education program should assist in raising participation levels.

Conclusion

The 2022-2023 assessment findings suggest that, in the work that could be rated, our students are attaining acceptable levels of achievement in the '22-23 focus competencies. That said, there are opportunities for greater understanding and increased participation from MAC instructional faculty and staff. Two important efforts to pursue include increasing instructor awareness of the MAC rubrics as course design and learning assessment tools and building stronger networks of general education teaching practice and peer-to-peer support. Adjustments made in light of these findings will ideally strengthen both our students' general education experiences as well as satisfaction among the MAC teaching faculty.

Assessment Findings by '22-23 Focus Competency

This section of the report presents assessment findings and discussion for each of the '22-23 focus competencies. An overview of student achievement by SLO across all seven '22-23 focus competencies is presented in Table 5.

Table 5. SLO achievement by '22-23 focus competency.

MAC Competency SLO	Level 4	Level 3	Level 2	Level 1
Critical Thinking & Inquiry in the Humanities/Fine Arts				
SLO 1. Critically analyze claims, arguments, artifacts or	32%	28%	29%	11%
information.				
SLO 2. Construct coherent, evidence-based arguments.	26%	29%	27%	18%
Critical Thinking & Inquiry in the Social & Behavioral Scien	ces			
SLO 1. Critically analyze claims, arguments, artifacts or	30%	32%	24%	14%
information.				
SLO 2. Construct coherent, evidence-based arguments.	36%	19%	24%	20%
Critical Thinking & Inquiry in the Natural Sciences				
SLO 1. Critically analyze claims, arguments, artifacts or	21%	21%	36%	23%
information.				
SLO 2. Construct coherent, evidence-based arguments.	11%	28%	38%	24%
Diversity & Equity				
SLO 1. Describe how political, social, or cultural	21%	26%	32%	21%
systems and structures, in the past or present, have				
advantaged and oppressed different groups of people.				
SLO 2. Describe how political, social, or cultural	21%	30%	33%	16%
systems, in the past or present, have produced and				
sustained ideas of difference and, in the face of that,				
how marginalized groups have meaningfully engaged in				
self-definition.				
SLO 3. Examine individual and collective responses for	21%	33%	25%	21%
addressing practices of disenfranchisement,				
segregation, or exclusion.				
Global Engagement & Intercultural Learning				
SLO 1. Describe dynamic elements of different cultures.	26%	30%	32%	12%
These elements may include (but are not limited to)				
aesthetic systems, communication systems,				
economics, physical environments, ethics, gender				
norms, geography, history, politics, religious principles,				
or social beliefs, norms and practices.				
SLO 2. Explain how similarities, differences, and	26%	28%	32%	13%
connections among different groups of people or				
environmental systems affect one another over time and				
place.				
Quantitative Reasoning				

SLO 1. Students will interrelate real world information with mathematical forms (e.g., with functions, equations, graphs, diagrams, tables, words, geometric figures).	4%	29%	58%	9%
SLO 2. Students will formulate and justify conclusions	4%	19%	56%	21%
based on quantitative arguments.				
SLO 3. Students will communicate the quantitative	3%	11%	68%	18%
evidence of the argument.				
Written Communication				
SLO 1. Analyze written texts to understand how they	17%	35%	28%	20%
relate to particular audiences, purposes, and contexts				
as a way to inform one's own writing.				
SLO 2. Create and revise written texts for particular	28%	34%	26%	12%
audiences, purposes, and contexts.				
SLO 3. Through oral or written reflection, demonstrate	25%	31%	28%	17%
awareness of one's writing choices as well as how one's				
own writing contributes to ongoing conversations.				

Critical Thinking & Inquiry in the Humanities and Fine Arts

In spring 2023, 15 of 91 Critical Thinking & Inquiry in the Humanities & Fine Arts (MHFA) sections participated in the student learning assessment process. Course instructors:

- used a variety of assignments (e.g., short essay responses, critical analysis papers, quiz and exam questions, discussion boards, presentations, and webpage content creation) to assess each of the SLOs:
- scored 362 student assignment submissions for SLO-1 and 361 student assignment submissions for SLO-2 using the MHFA rubric (see Appendix A);
- described and discussed their aggregated results using a MHFA Course Results Report; and
- provided a random sample of 5 student assignment submissions from each section to the General Education Assessment Coordinator.

In May 2023, 4 MHFA instructors served as peer validators at a two-day assessment workshop. They:

- participated in a calibration session using the MHFA rubric to score a sample student assignment submission;
- scored a total of 70 student assignment submissions using the MHFA rubric, with pairs of reviewers scoring each assignment separately with periodic calibration check-ins with their partner,
- wrote a short group statement on key observations made, and
- contributed feedback in a debrief conversation held at the end of the workshop.

Figure 1 presents the average student learning achievement in the MHFA competency by SLO.

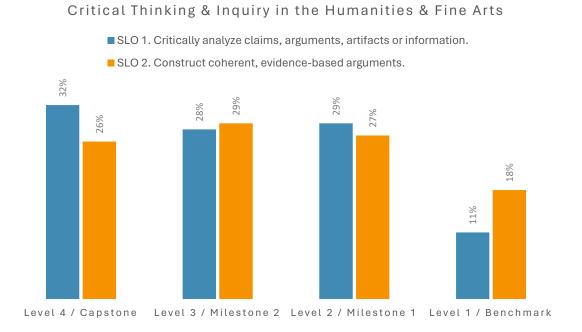
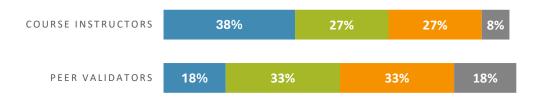


Figure 2 presents a comparison of course instructors (CI) and peer validator (PV) ratings of MHFA student work products. CI: n = 362 student assignment submissions for SLO-1 and 361 student assignment submissions for SLO-2; PV: n= 35 student assignment submissions for SLO-1 and 35 student assignment submissions for SLO-2.

SLO 1. Critically analyze claims, arguments, artifacts or information.



SLO 2. Construct coherent, evidence-based arguments.



Course instructor feedback

Course instructors whose sections were included in the data collection process were invited to provide written comments in response to their participation in the process.

Overall, instructors indicated that results were as expected, with the majority of students meeting or exceeding Level 2 – Milestone 1. In a few instances, instructors commented on how students' scores were lower on average for SLO 2 because integrating strong evidence into an argument is a high-level skill. Some students "are very agile and sophisticated in working with evidence and constructing arguments, and for others it is still unfamiliar territory, so there tends to be a wide range."

In reflecting on how they will use this evidence to improve or enhance student learning in their MAC course, instructors responded with a variety of plans, e.g.:

- emphasizing the SLOs more throughout the semester,
- simplifying assignments to draw on fewer sources so that students can focus on these in more depth,
- breaking down complex assignments into smaller parts that are scaffolded,
- explaining in more detail how to conduct discipline-appropriate analysis,
- introducing research elements of assignments earlier in the term,

- revising assignment instructions to emphasize thesis claim construction/presentation,
- providing examples to illustrate the skills in question, and
- devoting more time in class to using textual evidence to support claims.

Instructors also had the opportunity to offer comments, questions and suggestions in relation to the MAC assessment process they participated in. About half of the course instructors chose to do so. See Appendix I for complete presentation of this feedback and "Using Feedback to Improve Assessment Practice" (p. 39) for its analysis.

Peer validator feedback

Peer faculty who served as raters of MHFA student work at the May 2023 assessment workshop were asked to provide a written group reflection in response to their participation in the process.

The peer rater group reported that, on the whole, students are demonstrating SLO-relevant learning, particularly in the identifying and analyzing claims and arguments.

The peer raters noted that students showed more comfort with summarizing tasks than ones that asked them to perform higher-order analysis and weighing the merits of information or evidence. Regarding SLO 2, students often showed hesitance to state their thesis claim clearly and generally achieved lower scores on argument construction.

Occasionally the sampled assignment prompts did not allow students to demonstrate SLO-specific learning – though the peer raters noted they enjoyed the creativity of some of those assignments. Generally, the SLOs seem easier to approach in courses where there is a higher expectation for writing/information literacy.

In terms of guidance for assignment design in courses that presently may not sufficiently foreground argument construction, the group suggested asking students to write short papers that allow students to critically reflect on choices they made, for instance, in producing a presentation or artifact, answering prompts such as:

- Why did you record your video in black and white? How do you address criticisms of that approach?
- Why did you storyboard your video the way you did? What were some alternatives, and why did you not take one of those paths?
- How might someone critique your approach or presentation, and how would you respond to that criticism?

Concluding their remarks, the reviewer group emphasized the importance of intentionally aligning course and assignment SLOs with the MHFA SLOs. They suggested that peer instructors use examples to illustrate to students stronger and weaker executions of particular critical thinking tasks. They noted that multiple-choice exams are highly unlikely to satisfy either of the MHFA SLOs and acknowledged that larger sections may need support to reach high levels of achievement, while keeping grading manageable. They recommend in-person course development workshops.

Critical Thinking & Inquiry in the Social and Behavioral Sciences

In spring 2023, 9 of 63 Critical Thinking & Inquiry in the Social & Behavioral Sciences (MSBS) sections participated in the student learning assessment process. Course instructors:

- used a variety of assignments (e.g., research briefs, research papers, source analyses, exam questions, and interview reports) to assess each of the SLOs;
- scored 572 student assignment submissions for SLO-1 and 405 student assignment submissions for SLO-2 using the MSBS rubric (see Appendix B);
- described and discussed their aggregated results using a MSBS Course Results Report; and
- provided a random sample of 5 student assignment submissions from each section to the General Education Assessment Coordinator.

In May 2023, 4 MSBS instructors served as peer validators at a two-day assessment workshop. They:

- participated in a calibration session using the MSBS rubric to score a sample student assignment submission;
- scored a total of 78 student assignment submissions using the MSBS rubric, with pairs of reviewers scoring each assignment separately with periodic calibration check-ins with their partner,
- wrote a short group statement on key observations made, and
- contributed feedback in a debrief conversation held at the end of the workshop.

Figure 3 presents the average student learning achievement in the MSBS competency by SLO.

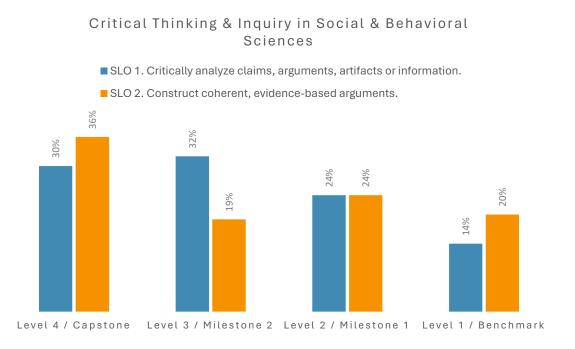
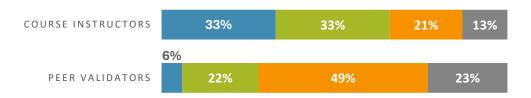
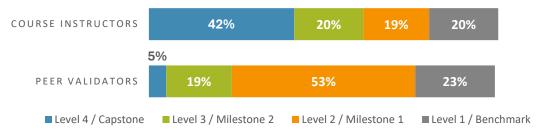


Figure 4 presents a comparison of course instructors (CI) and peer validator (PV) ratings of MSBS student work products. CI: n = 572 student assignment submissions for SLO-1 and 405 student assignment submissions for SLO-2; PV: n= 35 student assignment submissions for SLO-1 and 43 student assignment submissions for SLO-2.

SLO 1. Critically analyze claims, arguments, artifacts or information.



SLO 2. Construct coherent, evidence-based arguments.



Course instructor feedback

Course instructors whose sections were included in the data collection process were invited to provide written comments in response to their participation in the process.

Overall, instructors indicated that results were as expected, with the majority of students meeting or exceeding Level 2 – Milestone 1. In a few instances, instructors commented on their surprise at students' lower-than-expected performance.

In reflecting on how they will use this evidence to improve or enhance student learning in their MAC course, instructors responded with a variety of plans, e.g.:

- using the rubric to help students understand how they are reaching course objectives,
- using the rubric to design scaffolded assignments,
- holding open work sessions for students,
- posting exemplars that are also talked through in class,
- introducing a new assignment that asks students to present a well-researched argument to the class,
- refining assignment prompts to more clearly target SLO 2,
- devoting more class time to reading and/or reviewing research studies,
- changing an extra-credit reflection essay to a required assignment, and

• more intentionally supporting students to build skill at comparing and contrasting the views of their peers.

Instructors also had the opportunity to offer comments, questions and suggestions in relation to the MAC assessment process they participated in. About half of the course instructors chose to do so. See Appendix I for complete presentation of this feedback and "Using Feedback to Improve Assessment Practice" (p. 39) for its analysis.

Peer validator feedback

Peer faculty who served as raters of MSBS student work at the May 2023 assessment workshop were asked to provide a written group reflection in response to their participation in the process.

The peer rater group reported that a wide variety of assignments were submitted. While some of these didn't address the SLOs transparently, others did, despite taking an approach that didn't ask students to write papers. For instance, they praised an assignment that asked students to do a critical analysis of two sources they found on an assigned topic.

The group noted that assignment prompts could more explicitly adhere to the MAC rubric and that direct prompts were helpful. They also questioned how realistic it would be to follow the rubric's descriptions of achievement too closely, since these seem to demand a lot at the higher levels of achievement and seem not fine-grained enough at the lower levels.

The group felt uncomfortable answering whether the competency is being learned, since the assessment process does not presently depend on pre- and post-testing.

The MSBS reviewers' complete response is found in Appendix K.

Critical Thinking & Inquiry in the Natural Sciences

In spring 2023, 4 of 24 Critical Thinking & Inquiry in the Natural Sciences (MNTS) sections participated in the student learning assessment process. Course instructors:

- used a variety of assignments (e.g., research papers, quiz questions, case study analyses, source analyses, study proposals) to assess each of the SLOs;
- scored 101 student assignment submissions for SLO-1 and 85 student assignment submissions for SLO-2 using the MNTS rubric (see Appendix C);
- described and discussed their aggregated results using a MNTS Course Results Report; and
- provided a random sample of 5 student assignment submissions from each section to the General Education Assessment Coordinator.

In May 2023, 3 MNTS instructors served as peer validators at a two-day assessment workshop. They:

- participated in a calibration session using the MNTS rubric to score a sample student assignment submission;
- scored a total of 39 student assignment submissions using the MNTS rubric, with pairs of reviewers scoring each assignment separately with periodic calibration check-ins with their partner,
- wrote a short group statement on key observations made, and
- contributed feedback in a debrief conversation held at the end of the workshop.

Figure 5 presents the average student learning achievement in the MNTS competency by SLO.

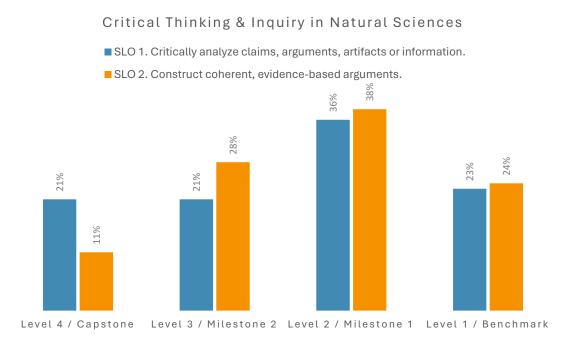
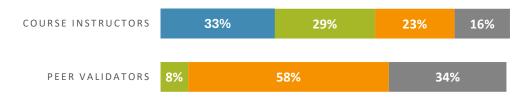
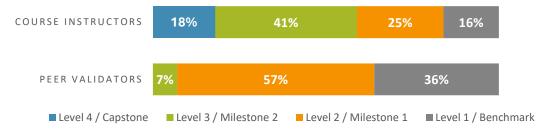


Figure 6 presents a comparison of course instructors (CI) and peer validator (PV) ratings of MNTS student work products. CI: n = 101 student assignment submissions for SLO-1 and 85 student assignment submissions for SLO-2; PV: n= 20 student assignment submissions for SLO-1 and 19 student assignment submissions for SLO-2.

SLO 1. Critically analyze claims, arguments, artifacts or information.



SLO 2. Construct coherent, evidence-based arguments.



Course instructor feedback

Course instructors whose sections were included in the data collection process were invited to provide written comments in response to their participation in the process.

Overall, instructors indicated that results were as expected, with the majority of students meeting or exceeding Level 2 – Milestone 1. Some instructors commented on how dramatically the wording of assignment prompts can affect student achievement of the SLOs, particularly SLO 1. One instructor noted that introductory-level students generally lack basic knowledge of scientific inquiry, which makes SLO 2 somewhat more challenging to teach in the context of the natural sciences.

In reflecting on how they will use this evidence to improve or enhance student learning in their MAC course, instructors responded with a variety of plans, e.g.:

- revising quizzes and exams to feature more written-response questions and fewer multiple choice and true/false questions,
- developing sequenced problem sets to incrementally integrate concepts,
- exposing students to scientific inquiry and offering feedback as they engage in it,
- incorporating more examples of research methods and activities in action, and
- refining assignment prompts to target aspects of the SLOs more directly.

Instructors also had the opportunity to offer comments, questions and suggestions in relation to the MAC assessment process they participated in. About half of the course instructors chose to do so. See Appendix I for complete presentation of this feedback and "Using Feedback to Improve Assessment Practice" (p. 39) for its analysis.

Peer validator feedback

Peer faculty who served as raters of MNTS student work at the May 2023 assessment workshop were asked to provide a written group reflection in response to their participation in the process.

In their overall analysis of the results, the MTNS peer rater group stated that students are successful in meeting the Level 2 (Milestone 1) target for SLO 1, but fewer are meeting the target for SLO 2 in relation to constructing arguments, which is higher on Bloom's taxonomy than analysis. The group was not able to score many assignments in relation to "engagement in scientific inquiry", which was the second criterion presented in the Spring 2020 MTNS rubric (and which has been removed in the newer version of that rubric). Of those that were relevant to that criterion, students did not by and large meet the Level 2 target.

The peer group offered substantial suggestions to instructors teaching the MNTS competency, including:

- using distinct assignments to assess SLOs 1 and 2
- providing specific instructions to students including keywords from the rubric to guide the work
- steering students away from simply repeating or summarizing facts they've already encountered this is not critical thinking
- assignment suggestions for SLO 1: students could be asked to analyze a figure, statement
 or results submission from a reading source associated with, but not directly covered in,
 class (instructors could even create these for the purpose of the analysis exercise)
- assignment suggestions for SLO 2, criterion 1: the instructor could guide students to sources needed to back up their arguments; the more detailed the prompt, the better
- SLO 2 Criteria 2: Most assignments did not have this criteria (and we know it is going away in the Fall of '23) but it was meant to be sure the students did a form of scientific inquiry and were able to think of a way to explore a research question. They did not need to do an experiment but even just the ability to look at a question, construct a hypothesis, and lay out a possible methodology is needed for this criteria.

The MNTS reviewers' complete response is found in Appendix L.

Diversity & Equity

In spring 2023, 11 of 53 Diversity & Equity (MDEQ) sections participated in the student learning assessment process. Course instructors:

- used a variety of assignments (e.g., papers, visual essays, presentations, journaling, source analyses, exam questions, and discussion boards) to assess each of the SLOs;
- scored 602 student assignment submissions for SLO-1, 900 student assignment submissions for SLO-2, and 570 student assignment submissions for SLO-3 using the MDEQ rubric (see Appendix D);
- described and discussed their aggregated results using a MDEQ Course Results Report;
 and
- provided a random sample of 5 student assignment submissions from each section to the General Education Assessment Coordinator.

In May 2023, 3 MDEQ instructors served as peer validators at a two-day assessment workshop. They:

- participated in a calibration session using the MDEQ rubric to score a sample student assignment submission;
- scored a total of 143 student assignment submissions using the MDEQ rubric, with pairs of reviewers scoring each assignment separately with periodic calibration check-ins with their partner,
- wrote a short group statement on key observations made, and
- contributed feedback in a debrief conversation held at the end of the workshop.

Figure 7 presents the average student learning achievement in the MDEQ competency by SLO.

Diversity & Equity

- SLO 1. Describe how political, social, or cultural systems and structures, in the past or present, have advantaged and oppressed different groups of people.
- SLO 2. Describe how political, social, or cultural systems, in the past or present, have produced and sustained ideas of difference and, in the face of that, how marginalized groups have meaningfully engaged in self-definition.
- SLO 3. Examine individual and collective responses for addressing practices of disenfranchisement,

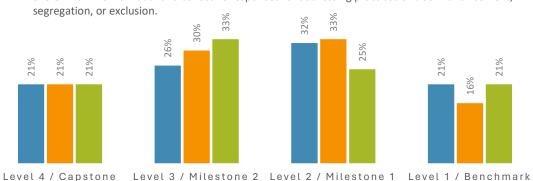
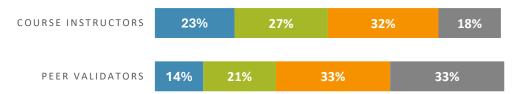
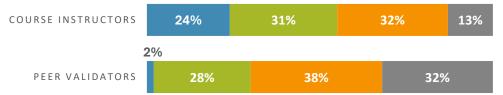


Figure 8 presents a comparison of course instructors (CI) and peer validator (PV) ratings of MDEQ student work products. CI: n = 602 student assignment submissions for SLO-1, 900 student assignment submissions for SLO-2, and 570 student assignment submissions for SLO-3; PV: n= 44 student assignment submissions for SLO-1, 59 student assignment submissions for SLO-2, and 40 student assignment submissions for SLO-3.

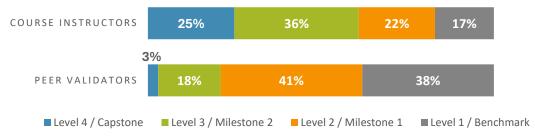
SLO 1. Describe how political, social, or cultural systems and structures, in the past or present, have advantaged and oppressed different groups of people.



SLO 2. Describe how political, social, or cultural systems, in the past or present, have produced and sustained ideas of difference and, in the face of that, how marginalized groups have meaningfully engaged in self-definition.



SLO 3. Examine individual and collective responses for addressing practices of disenfranchisement, segregation, or exclusion.



Course instructor feedback

Course instructors whose sections were included in the data collection process were invited to provide written comments in response to their participation in the process.

Overall, instructors indicated that results were as expected, with the majority of students meeting or exceeding Level 2 – Milestone 1. Student achievement on SLO dimensions that called for

reflection on one's own positionality (defined in the rubric as "the way in which the influences on one's own identity impact one's understanding of the world") was lower than student achievement in remaining elements. One instructor remarked that students showed insight and engagement overall but could find identifying or acknowledging their own positionality challenging. In a related vein, another instructor wondered whether this work might be especially challenging for first-year students based on high school training that shunned self-reflexive claims, unless explicitly prompted.

In reflecting on how they will use this evidence to improve or enhance student learning in their MAC course, instructors responded with a variety of plans, e.g.:

- tailoring assignment prompts to particular aspects of the rubric and/or SLOs, for instance, addressing positionality or intersectionality,
- introducing weekly reflections or other self-reflective exercises to give students more space to process challenging concepts,
- devoting more class time to discussion so that students learn from more from each other,
- diversifying the voices in the readings selected for the course, and
- revising assignment prompts to encourage students to think more precisely about specific concepts (e.g., systems of advantage and oppression, freedom as a structural condition, strategies for managing difference conditions), and
- scaffolding assignments and clarifying expectations.

Instructors also had the opportunity to offer comments, questions and suggestions in relation to the MAC assessment process they participated in. About half of the course instructors chose to do so. See Appendix I for complete presentation of this feedback and "Using Feedback to Improve Assessment Practice" (p. 39) for its analysis.

Peer validator feedback

Peer faculty and staff who served as raters of MDEQ student work at the May 2023 assessment workshop were asked to feedback in response to their participation in the process.

In discussion, MDEQ raters commented that it was evident when instructors had used the MDEQ rubric to design their assignments and when they had not. In the latter cases, the Diversity & Equity SLOs were not linked adequately with what students seemed to be learning and practicing in the courses. There is potential harm being caused to UNCG students by offering DEI as a tacked-on component in MDEQ courses. The group raised concerns about how and whether faculty and instructional staff are receiving sufficient training (and incentive to receive training) to safely embed the MDEQ SLOs into their courses and classrooms.

In terms of student work scoring, the peer rater group noted that the repeated rubric criterion of "interrogating positionality" was the least well-aligned element of the rubric with student achievement (scores were consistently lower here) and with assignment design – many sampled assignments were considered not ratable by the reviewers, since the prompts did not explicitly ask students to reflect on their own positionality.

Ultimately, the group urged the continued refinement and alignment of the MAC Diversity & Equity competency as well as the student learning rubric that frames the competency's aims and sets down learning achievement descriptions and targets for instructors. After the workshop, detailed feedback from this reviewer group was shared with the working group charged over the course of the '22-23 to revise the MDEQ rubric; one of its members served on the working group and thus served as an important connection point between the assessment workshop and the rubric revision project.

Global Engagement & Intercultural Learning

In spring 2023, 26 of 164 Global Engagement & Intercultural Learning (MGIL) sections participated in the student learning assessment process. Course instructors:

- used a variety of assignments (e.g., papers, presentations, exam and quiz questions, journaling, case study analyses, cultural contact hours, and discussion boards) to assess each of the SLOs;
- scored 390 student assignment submissions for SLO-1 and 420 student assignment submissions for SLO-2 using the MGIL rubric (see Appendix E);
- described and discussed their aggregated results using a MGIL Course Results Report; and
- provided a random sample of 5 student assignment submissions from each section to the General Education Assessment Coordinator.

In May 2023, 7 MGIL instructors served as peer validators at a two-day assessment workshop. They:

- participated in a calibration session using the MGIL rubric to score a sample student assignment submission;
- scored a total of 201 student assignment submissions using the MGIL rubric, with pairs of reviewers scoring each assignment separately with periodic calibration check-ins with their partner,
- wrote a short group statement on key observations made, and
- contributed feedback in a debrief conversation held at the end of the workshop.

Figure 9 presents the average student learning achievement in the MGIL competency by SLO.

Global Engagement & Intercultural Learning

- SLO 1. Describe dynamic elements of different cultures. These elements may include (but are not limited to) aesthetic systems, communication systems, economics, physical environments, ethics, gender norms, geography, history, politics, religious principle
- SLO 2. Explain how similarities, differences, and connections among different groups of people or environmental systems affect one another over time and place.

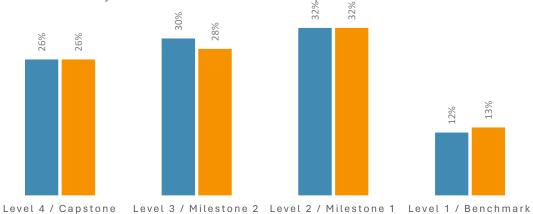
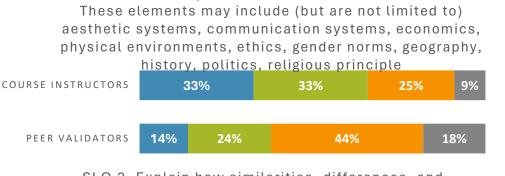


Figure 10 presents a comparison of course instructors (CI) and peer validator (PV) ratings of MGIL student work products. CI: n = 390 student assignment submissions for SLO-1 and 420 student assignment submissions for SLO-2; PV: n= 96 student assignment submissions for SLO-1 and 105 student assignment submissions for SLO-2.

SLO 1. Describe dynamic elements of different cultures.



SLO 2. Explain how similarities, differences, and connections among different groups of people or environmental systems affect one another over time and



Course instructor feedback

Course instructors whose sections were included in the data collection process were invited to provide written comments in response to their participation in the process.

Overall, instructors indicated that results were as expected, with the majority of students meeting or exceeding Level 2 – Milestone 1. Some instructors remarked they were not surprised to see higher achievement on descriptive tasks (SLO 1) than on comparative tasks (SLO 2), especially if students were writing in a language new to them.

In reflecting on how they will use this evidence to improve or enhance student learning in their MAC course, instructors responded with a variety of plans, e.g.:

- integrating the MAC SLOs earlier in assignments to scaffold more complex thinking about cultural and environmental diversity,
- revising prompts to be more detailed and precise at targeting specific learning outcomes,
- providing successful examples of intercultural comparison,
- (further) diversifying the voices, peoples, cultures, epochs, and/or sites represented in the course,

- having students keep intercultural blogs to reflect on cultural differences and commonalities they observe in course readings and in interacting with people from other cultural groups,
- finding new ways to connect students' everyday experiences with historical events to reveal connections,
- devoting more time in class to the discussion of complex ideas or events (e.g., capitalism and the free market; cultural and social conditions of post-1989 Chinese society, etc.),
- deepening students' engagement with their reflection writings by asking them to choose some to expand upon (and grading those more rigorously to encourage student focus),
- adding an in-class discussion to the final project so that students can interest and engage each other in intercultural comparison, and
- incorporating more High Impact Practices (HIPs).

Several instructors stated proposals quite specific to teaching foreign language courses that carry the MGIL designation, e.g.:

- reconsidering which conversations about cultural similarities and differences to have in English instead of the target foreign language,
- working with colleagues to stockpile more Cultural Contact Hours activities that focus on authentic language use and cultural experiences (e.g., content created by native speakers and not necessarily by foreign language pedagogues), and
- asking students early on about their prior knowledge of a foreign language or culture to address potential misconceptions and help build foundations for openmindedness and intercultural connections/relationships.

Instructors also had the opportunity to offer comments, questions and suggestions in relation to the MAC assessment process they participated in. About half of the course instructors chose to do so. See Appendix I for complete presentation of this feedback and "Using Feedback to Improve Assessment Practice" (p. 39) for its analysis.

Peer validator feedback

Peer faculty who served as raters of MGIL student work at the May 2023 assessment workshop were asked to provide a written group reflection in response to their participation in the process.

The peer rater group reported that the kind of assignments submitted, as well as the specificity of their prompts, strongly determined their ability to score student achievement in relation to the MGIL SLOs. Some assignments were well-aligned with the SLOs, other not at all. The group found the multiple choice and true/false questions generally were insufficient for gauging student achievement in the SLOs. More successful assignments asked students to summarize and analyze or reflect on artifacts, events, topics or questions directly related to global and intercultural themes.

Some of the course instructors in the sample submitted student work completed in a language other than English. Some of the workshop raters were able to read this work, but generally, the

raters listed these as not ratable, in the sense that they were not competent to judge the students' meeting the SLOs since they are not fluent in the language. This led to some discussion regarding whether all student work used in future MAC assessment processes must be in English; peer reviewers at the workshop who teach foreign language courses that are MGIL-designated suggested that adding short English-language writing reflections might be easier to implement in some courses more than others, depending on the emphasis placed on students' working in the target language.

The rater group offered several suggestions for instructors designing MGIL assignments:

- when an assignment is meant to address both SLOs, specifying to students (and peer readers) which part(s) of the assignment addresses which SLO would be helpful
- experiential activities, such as visiting cultural events on campus, should be accompanied by some student work, if they are meant to serve as key sites for students to learn the MGIL SLOs
- avoiding closed-ended questions (e.g., T/F, multiple choice, lists) will allow students to show more of what they are learning in relation to the competency's SLOs

The MGIL reviewers' complete response is found in Appendix M.

Quantitative Reasoning

In spring 2023, 8 of 40 Quantitative Reasoning (MQR) sections participated in the student learning assessment process. Course instructors:

- used a variety of assignments (e.g., capstone projects, final portfolios, and exam questions targeting these and other skills: mathematical statement analyses, equation formulation and solving, model formulation and application, and scientific notation exercises) to assess each of the SLOs;
- scored 571 student assignment submissions for SLO-1, 588 student assignment submissions for SLO-2, and 555 student assignment submissions for SLO-3 using the MQR rubric (see Appendix F);
- described and discussed their aggregated results using a MQR Course Results Report; and
- provided a random sample of 7 student assignment submissions from each section to the General Education Assessment Coordinator.

In May 2023, 2 MQR instructors served as peer validators at a two-day assessment workshop. They:

- participated in a calibration session using the MQR rubric to score a sample student assignment submission;
- scored a total of 162 student assignment submissions using the MQR rubric, with pairs of reviewers scoring each assignment separately with periodic calibration check-ins with their partner,
- wrote a short group statement on key observations made, and
- contributed feedback in a debrief conversation held at the end of the workshop.

Figure 11 presents the average student learning achievement in the MQR competency by SLO.

Quantitative Reasoning

- SLO 1. Students will interrelate real world information with mathematical forms (e.g., with functions, equations, graphs, diagrams, tables, words, geometric figures).
- SLO 2. Students will formulate and justify conclusions based on quantitative arguments.
- SLO 3. Students will communicate the quantitative evidence of the argument.



Figure 12 presents a comparison of course instructors (CI) and peer validator (PV) ratings of MQR student work products. CI: n = 571 student assignment submissions for SLO-1, 588 student assignment submissions for SLO-2, and 555 student assignment submissions for SLO-3; PV: n= 54 student assignment submissions for SLO-1, 54 student assignment submissions for SLO-2, and 54 student assignment submissions for SLO-3.

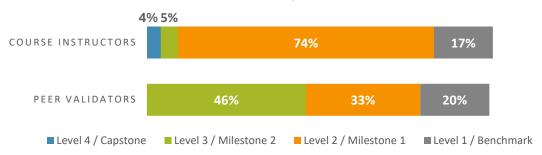
SLO 1. Students will interrelate real world information with mathematical forms (e.G., With functions, equations, graphs, diagrams, tables, words, geometric figures).



SLO 2. Students will formulate and justify conclusions based on quantitative arguments.



SLO 3. Students will communicate the quantitative evidence of the argument.



Course instructor feedback

Course instructors whose sections were included in the data collection process were invited to provide written comments in response to their participation in the process.

Overall, instructors indicated that results were as expected, with the majority of students meeting or exceeding Level 2 – Milestone 1. The course instructors, all from the Mathematics and Statistics

Department, followed an internally agreed-upon formula for scoring students achievement of the SLOs: Students who answered a question correctly was considered to be at Level 2; if they answered incorrectly, they were scored at Level 1. Several instructors nonetheless remarks on nuance in performance among students. SLO 3 was considered by at least one instructor as the most challenging MQR SLO. Another instructor noted that "students are good at straightforward questions similar to the examples we went over during the class, and made more mistakes when it comes to a question with multiple parts that requires a combination of different concepts." One course instructor reflected that "it was somewhat of a struggle to fit the multiple-choice final exam to this rubric since we typically do not ask for written or verbal justification of answers. This could be remedied with certain in-class assignments, but these are not currently part of the standard [course] curriculum."

In reflecting on how they will use this evidence to improve or enhance student learning in their MAC course, instructors responded with a variety of plans, e.g.:

- assigning more homework that targets one or more of the MQR SLOs,
- creating more Final Project problems that directly address the MQR SLOs,
- revising assignment prompts and problem instructions to be more clear,
- reconsidering which computing technologies students interact with and for what precise aim,
- engaging new strategies for encouraging persistent attendance in class,
- introducing more comprehensive questions during class to help students integrate concepts across units or lessons,
- developing more specialized in-class activities to demonstrate the proper use of technology, such as Desmos as a computational tool, and
- findings (or continuing to find) ways to support all students regardless of background or identity.

Instructors also had the opportunity to offer comments, questions and suggestions in relation to the MAC assessment process they participated in. About half of the course instructors chose to do so. See Appendix I for complete presentation of this feedback and "Using Feedback to Improve Assessment Practice" (p. 39) for its analysis.

Peer validator feedback

Peer faculty and staff who served as raters of MQR student work at the May 2023 assessment workshop were asked to feedback in response to their participation in the process.

In discussion, the MQR raters commented that the assignments included in the sample were either obviously in alignment with the MQR SLOs or obviously out of alignment. This made scoring either a simple matter or, in some cases, not possible. In relation to assigning scores to student work, the raters shared that general practice has been to score a students' solution or demonstration as either correct or incorrect – in this respect, estimating student achievement levels can be either more straightforward or (potentially) more demanding in the MQR competency compared with the other MAC competencies. For instance, in order to score a student's work where the mathematical equation has not been correctly solved, the instructor must develop a key for determining whether

any intermediary steps or knowledge counts for partial credit. In cases, where problems may have multiple solution paths, this task becomes even more challenging. Finally, inter-rater reliability ideals would recommend that a general approach to partial crediting be developed among all instructors teaching this competency.

In order to generate more robust evidence of student learning, the raters recommended that instructors have their students complete more than one problem that addresses each of the SLOs. Ideally, more than one problem is then also submitted to the workshop raters to score to create more robust evidence overall of student learning.

Finally, the raters strongly encouraged that instructors teaching MQR sections, especially graduate student instructors, use the MQR rubric in designing their assignments. The rubric helps set parameters on how to score correct, partially correct and wholly incorrect work.

Written Communication

In spring 2023, 9 of 67 Written Communication (MWC) sections participated in the student learning assessment process. Course instructors:

- used a variety of assignments (e.g., essays, portfolios of written work, journaling, annotation assignments, and webpage content creation) to assess each of the SLOs;
- scored 241 student assignment submissions for SLO-1, 248 student assignment submissions for SLO-2, and 127 student assignment submissions for SLO-3 using the MWC rubric (see Appendix G);
- described and discussed their aggregated results using a MWC Course Results Report; and
- provided a random sample of 5 student assignment submissions from each section to the General Education Assessment Coordinator.

In May 2023, 2 MWC instructors served as peer validators at a two-day assessment workshop. They:

- participated in a calibration session using the MWC rubric to score a sample student assignment submission;
- scored a total of 170 student assignment submissions using the MWC rubric, with pairs of reviewers scoring each assignment separately with periodic calibration check-ins with their partner,
- wrote a short group statement on key observations made, and
- contributed feedback in a debrief conversation held at the end of the workshop.

Figure 13 presents the average student learning achievement in the MWC competency by SLO.

Written Communication

- SLO 1. Analyze written texts to understand how they relate to particular audiences, purposes, and contexts as a way to inform one's own writing.
- SLO 2. Create and revise written texts for particular audiences, purposes, and contexts.
- SLO 3. Through oral or written reflection, demonstrate awareness of one's writing choices as well as how one's own writing contributes to ongoing conversations.

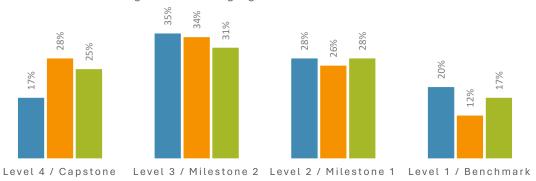
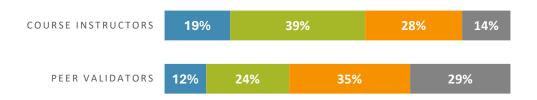
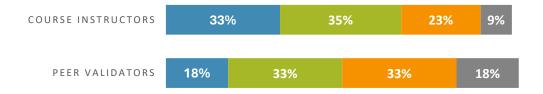


Figure 14 presents a comparison of course instructors (CI) and peer validator (PV) ratings of MWC student work products. CI: n = 241 student assignment submissions for SLO-1, 248 student assignment submissions for SLO-2, 127 student assignment submissions for SLO-3; PV: n= 53 student assignment submissions for SLO-1, 40 student assignment submissions for SLO-2, and 20 student assignment submissions for SLO-3.

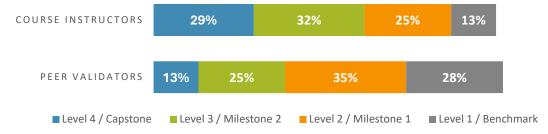
SLO 1. Analyze written texts to understand how they relate to particular audiences, purposes, and contexts as a way to inform one's own writing.



SLO 2. Create and revise written texts for particular audiences, purposes, and contexts.



SLO 3. Through oral or written reflection, demonstrate awareness of one's writing choices as well as how one's own writing contributes to ongoing conversations.



Course instructor feedback

Course instructors whose sections were included in the data collection process were invited to provide written comments in response to their participation in the process.

Overall, instructors indicated that results were as expected if not somewhat higher than expected, with the majority of students meeting or exceeding Level 2 – Milestone 1. Many instructors reported being pleased with the improvement they observed in their students, as they progressed from lower

to higher levels of writing accomplishment and/or deepened their understanding of writing as a process. SLO 3 was demonstrated more strongly in courses with intentionally incorporated writing-reflection work. Since high achievement of SLOs 1 and 2 in part depends on students' abilities to respond to and incorporate feedback into their writing/writing process, several instructors noted how helpful targeted, continuous discussion of those activities can be.

In reflecting on how they will use this evidence to improve or enhance student learning in their MAC course, instructors responded with a variety of plans, e.g.:

- developing (or refining) highly structured writing assignments that clearly communicate parameters and expectations,
- revising assignment prompts to target aspects of one or more of the MWC SLOs,
- providing students with more opportunities to write in the primary form featured in the course (e.g., essay, newswriting, journaling, etc.),
- adding (more) reflection components where students consider or explain their writing choices,
- developing new strategies to demystify quality writing and emphasize the writing process over the final product,
- structuring more text-based work early in the semester,
- incorporating more formal feedback earlier in the semester to give students a better foundation in tailoring their work to their audience,
- communicating the vocabulary of metacognition, and
- focusing on how students can apply what they're learning.

Instructors also had the opportunity to offer comments, questions and suggestions in relation to the MAC assessment process they participated in. About half of the course instructors chose to do so. See Appendix I for complete presentation of this feedback and "Using Feedback to Improve Assessment Practice" (p. 39) for its analysis.

Peer validator feedback

Peer faculty and staff who served as raters of MWC student work at the May 2023 assessment workshop were asked to feedback in response to their participation in the process.

In discussion, the MWC raters commented that, overall, they found it challenging to ascertain student competence in relation to the MWC SLOs – particularly SLOs 1.2 and 2.2., which asked for student reflection on their writing. Many of the assignments submitted by course instructors from sampled sections did not ask students to demonstrate their learning of the MWC SLOs and/or key facets thereof. If students' demonstrated accomplishment in one or more of the SLOs nonetheless, it was accidental to the assignment and not intentional. Evidence of student achievement was most robust in courses that asked for final portfolios and student writing on their own writing throughout the term.

The peer group noted that teaching others how to write and how to revise calls for specific training and understanding that instructors teaching MWC courses should be supported to acquire. The peer group spoke about the importance of sharing the MWC rubric with faculty and graduate

instructors early and often. The rubric offers solid guidance on what is expected in terms of student achievement for the competency.

The peer raters were informed that course instructors had the freedom to select assignments they considered best-fitted to demonstrating student achievement in the MWC SLOs; they voiced concern in response: why then were so few well-aligned with the SLOs? They recommend targeted training and faculty development be prioritized for MWC course instructors.

University forums feedback

In the Fall 2023 semester, campus stakeholders were invited to attend one or more scheduled forums where the results of the 2022-2023 general education assessment process were discussed. The first forum was in person in the Faculty Center and took place on Monday, September 11, 2023. Six campus community members attended – five faculty members and one administrator. The second forum was virtual and took place on Friday, September 15, 2023. Twenty-five campus community members attended – a mix of faculty, advisors, administrators. These forums were advertised on Campus Weekly and by direct email to all faculty and staff who have taught in the MAC program.

Approximately 15 minutes of each forum was devoted to receiving comments and questions from the audience. The following feedback was offered:

- This process seems to give instructors a meaningful opportunity to think about MAC-related assignments and how central they are to student learning for the course.
- It would be good to get course instructor participants together for a workshop that focuses on scoring calibration to parallel the training process that peer validators receive.
- There should be a feedback mechanism for participating course instructors who wish to have feedback on their assignments and student work samples.
- When peer validators mark student work as "Unable to rate" because the assignment prompt doesn't give students a chance to demonstrate the MAC SLO in question, that information should be shared back with course instructors.
- Disaggregating student scores by rater type is informative; suggests more consistent training is needed across rater groups, in particular, familiarity with the rubric.
- Would it be possible to re-score students on their learning of these competencies closer to their graduation?

Using Results to Improve Student Learning

Interpretation of overall results

The overall findings in aggregate suggest that a strong majority (78%) of MAC students are meeting or exceeding the level considered adequate for student learning after one introductory-level course in the '22-23 focus competencies. This conclusion must, however, be tempered by findings from the disaggregated data. Recalling the notable disparities across rater types (course instructors vs. peer validators), the relatively high rates of "unrateable" student work submitted by course instructors, and the concerns and suggestions provided by participating faculty, it is clear that there is room for improvement in student learning in the MAC program, as well as in instructional design.

Based on the assessment findings and feedback, the most evident current challenge to student learning in the MAC program is misalignment between those assignments deemed "MAC relevant" by instructors and the SLOs (and achievement levels) for the respective MAC competencies. Realizing the goals of the MAC program will depend on course-level lessons, activities and assignments being attuned to supporting students' development of those specific competencies.

Possible next steps

The following steps have been or will be taken to support MAC instructional faculty and staff as they continue to transition their courses to the new general education curriculum:

- The MAC rubrics have been revised (May 2023) to offer increased clarity about the levels of achievement and overarching aim of each competency, and a target will be set for Level 2 achievement;
- The new MAC program website (mac.uncg.edu; launched August 2023) will host a variety of instructional support materials and opportunities for peer-to-peer conversation and community;
- A curated database of sample MAC assignments will offer instructors examples of strong alignment between MAC SLOs and assignments;
- Continuing with past practice, annual "Teaching in MAC" workshops will be offered to MAC course instructors and curriculum directors;
- Materials and outreach will be created to support those new to teaching general education at UNCG, including new UNCG faculty and graduate student instructors; and
- Starting spring 2024, instructor-tailored reports will be created and shared back to
 participating instructors, supplying a collegial feedback mechanism to those who have
 shared their assignments and their students' work for the purposes of aggregate learning
 assessment.

Taken together, these actions should improve alignment between course and/or assignment design and the SLOs that MAC-designated courses should be foregrounding.

Using Feedback to Improve Assessment Practice

Summary of overall feedback

Feedback concerning the assessment process was collected from three sources:

- 1. Course instructors who were asked to score their students' work using a MAC competency rubric:
- 2. Peer validators who scored anonymized student work at an assessment workshop; and
- 3. Campus forum attendees who were presented a summary of the 2022-2023 general education assessment findings.

Course instructor feedback

About half of the participating course instructors left feedback concerning their involvement in the assessment process. A majority of them left overall appreciative remarks, e.g.:

"This is my first time participating in MAC Critical Thinking and Inquiry assessment. It has certainly pushed me to think more carefully about how my assignments meet the goals specified in the SLOs. Going forward, I also plan to use separate assignments to assess each SLO."

"This was an excellent exercise for me to see where my students might be falling behind and has me rethinking how I present assignments."

"Through participation in this assessment process, I recognize that there are ways in which I can be more intentional in my assignments (e.g., encourage more reflection as opposed to seeing if it emerges). While it is stated in my syllabus, I think introducing the course emphasizing that this course is part of the MAC curriculum (in addition to the lens through which I teach) could be helpful in establishing expectations."

More critical or skeptical remarks focused on possible weaknesses of the current assessment process, particularly its inability to capture "skills growth" across the semester. The current method in place has instructors choose "snapshots" of student learning by selecting assignments that are not marked according to when in the semester they were completed. Some commenters noted this does not capture the "story" of a student's learning in the course.

The other major area of concern voiced by course instructors, notably part-time and professional track faculty, relates to the non-compensatory nature of the task, e.g.:

"While I appreciate what this study is trying to achieve and se its value, as an adjunct instructor who only teaches on course at UNCG, this process felt cumbersome and misplaced. I would have gladly reviewed materials that help orient my instruction towards achieving the desired SLOs but doing extra work without even a small stipend for my time comes across as exploitative."

"This is a lot to ask lecturers to do when the university won't even extend our contracts beyond single-year affairs. If you don't care how we're going to feed ourselves and our

families beyond the immediate year of employment, why should we care to help the university complete long-term assessments of its programming?..."

In terms of suggestions, some course instructors asked for more up-front information on how to use multi-modal and orally communicated student work for the assessment process. One noted a disconnect between department-level curriculum directors and the MAC assessment process, noting the importance of clear lines of communication among all involved to ensure the process of scoring student work is as straightforward as possible. Several made suggestions concerning particular MAC rubrics, while several others suggested ways to share feedback and assignment resources back to participating instructors, to mutual benefit.

Peer validator feedback

At the assessment workshop debriefs held during the 2022-2023 academic year, peer validators emphasized how relevant they found the process of scoring anonymized students' work using the rubrics – it revealed to them that there is room for improvement in the alignment of course assignments with MAC SLOs. This was the case across all of the competencies sampled that year. Peer validators also supported the contextual information and calibration exercise provided at the start of the workshop. They recommended that course instructors have access to the same training, if possible, to improve inter-rater reliability. They asked whether pre- and post-testing is feasible for general education learning assessment at UNCG. Finally, peer validators suggested more than once that course instructors have access to sample assignments that show strong alignment with one or more MAC SLOs.

Campus forums feedback

Appreciation was voiced for the communication of these assessment results and their analysis to the campus. One attendee showed surprise at how focused on the assessment process the forums were, yet several noted the relevance of this information for those teaching in the MAC program. Several attendees emphasized the importance of regular and consistent communication concerning participation expectations and feedback mechanisms for instructors who request it.

Response to feedback

In response to this feedback, the overall general education assessment approach will remain in place for the 2023-2024 academic year, with some updates and enhancements.

The feedback suggests that more attention can be paid to contextualizing the assessment process to course instructors who might be concerned about how the results they report will be viewed. Though student learning in general education coursework is assessed at UNCG using a course-embedded process that depends on course instructors' direction and participation, it is not the case that individual instructors, course sections, students or programs are the evaluative targets of the process. Rather, the aim of general education assessment at UNCG remains focused on the collection of aggregate data across many courses, disciplines, students, and instructors to reveal a general picture of student learning in the MAC program.

Taking concerns about inter-rater norming into account, more persistent efforts will be made to meet with all participating course instructors prior to their scoring their students' work. One-on-

one as well as group training sessions will be offered to accommodate individual meeting preferences. If needed, department heads, undergraduate program directors, and/or curriculum directors will be looped into conversation with the goal of attaining 100% training completion by instructors.

Relating to participation concerns, while compensation cannot be offered to course instructors, emphasis on the benefits of participation, as reported by past participants, can help incentivize instructors asked to score their students' work. Ensuring that the process is presented as straightforwardly as possible and every effort is made to reduce the time burden on instructors will also be key factors in raising overall participation rates.

In response to the many requests for sample assignments across the competencies, a virtual repository of peer-shared assignments that offer strong examples of alignment to one or more MAC SLOs will be created over the course of the 2023-2024 academic year. Multimodal and oral assignments will be included among these samples.

APPENDIX A

Critical Thinking and Inquiry in the Humanities and Fine Arts Assessment Rubric

Definition

In Critical Thinking and Inquiry competency courses, students acquire a working knowledge of the foundational tools for reasoning, including constructing sound arguments, evaluating the quality of evidence, and forming judgments about the evidence, arguments, and conclusions of others in humanities and fine arts disciplines.

Framing Language

A course approved in the Critical Thinking and Inquiry in the Humanities and Fine Arts competency should have an intense focus on critical thinking and inquiry in the humanities and fine arts, meaning that critical thinking is an explicit part of the course design. As a result of successful completion of a course in this competency, students should have a working knowledge of the foundational tools for reasoning, including constructing sound arguments, evaluating the quality of evidence, and forming judgments about the evidence, arguments, and conclusions of others.

- Assumptions beliefs about a claim, argument, artifact, or information that shape one's understanding
 of it or make an understanding of its significance possible
- Context related aspects of a claim, argument, artifact, or information that indirectly affect an understanding of its significance
- Disciplinary-appropriate methods of analysis conform to supported standards of the related academic discipline

S	SLO #1: Critically analyze claims, arguments, artifacts or information.				
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1	
Critical Analysis	Analyzes claims, arguments, artifacts, or information with thorough support of clear evidence, all of which is high quality and appropriate to the analysis. Judicious attention is paid to both strengths and weaknesses of arguments and evidence, and the analysis fully	Analyzes claims, arguments, artifacts, or information with support of clear evidence, most of which is high quality and appropriate to the analysis. Some attention is paid to both strengths and weaknesses of arguments and evidence, and the analysis demonstrates a	Considers claims, arguments, artifacts, or information with support of some evidence, although there is limited consideration of quality and misinterpretations may be present. Basic attention is paid to reflecting on the quality, appropriateness, and broader context of arguments and evidence, although	Approaches claims, arguments, artifacts, or information as facts without further clarification or description. Limited evidence is provided in support of a position, and little attention is paid to its quality, appropriateness, broader context of arguments and evidence, or any underlying	

	considers the influence of context and underlying assumptions.	basic awareness of context and underlying assumptions.	such analysis may be uneven in support of the argument at times and may ignore some underlying assumptions.	assumptions.
	SLO #2: Cons	truct coherent, evid	lence-based argument	s.
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Argument	Constructs arguments in which the thesis claim is creative, clear, and thought-provoking. Evidence directly supports the thesis claim and is well- organized. Evidence is rich, varied, and drawn from high-quality, disciplinary- appropriate sources. The formal characteristics of construction enhance the coherency of the argument, in terms of facilitating complex, critical analysis.	Constructs arguments in which the thesis claim is clear and thought- provoking. Evidence directly supports the thesis claim and is well- organized. Evidence is drawn predominantly from disciplinary- appropriate sources. The formal characteristics of construction support the coherency of the argument, in terms of allowing for critical analysis.	Constructs arguments in which the thesis claim is clear. Evidence largely supports the thesis claim, but may be presented in a way that hinders understanding. Evidence may not be drawn from disciplinary-appropriate sources. The formal characteristics of construction are sufficient to permit the coherency of the argument.	Constructs arguments in which the thesis claim is either overly simplistic, convoluted, difficult to identify, or incoherent. Evidence rarely supports the thesis claim and often appears to be unrelated or inappropriate to the discipline. The formal characteristics of construction hinder the coherency of the argument.

APPENDIX B

Critical Thinking and Inquiry in the Social and Behavioral Sciences Assessment Rubric

Definition

In Critical Thinking and Inquiry competency courses, students acquire a working knowledge of the foundational tools for reasoning, including constructing sound arguments, evaluating the quality of evidence, and forming judgments about the evidence, arguments, and conclusions of others in social and behavioral science disciplines.

Framing Language

A course approved in the Critical Thinking and Inquiry in the Social and Behavioral Sciences competency should have an intense focus on critical thinking and inquiry in the social or behavioral sciences, meaning that critical thinking is an explicit part of the course design. As a result of successful completion of a course in this competency, students should have a working knowledge of the foundational tools for reasoning, including constructing sound arguments, evaluating the quality of evidence, and forming judgments about the evidence, arguments, and conclusions of others.

- Assumptions beliefs about a claim, argument, artifact, or information that shape one's understanding
 of it or make an understanding of its significance possible
- Context related aspects of a claim, argument, artifact, or information that indirectly affect an understanding of its significance
- Disciplinary-appropriate methods of analysis conform to supported standards of the related academic discipline

SLO	SLO #1: Critically analyze claims, arguments, artifacts or information.					
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1		
Critical Analysis	Analyzes claims, arguments, artifacts, or information with thorough support of clear evidence, all of which is high quality and appropriate to the analysis. Judicious attention is paid to both strengths and weaknesses of arguments and	Analyzes claims, arguments, artifacts, or information with support of clear evidence, most of which is high quality and appropriate to the analysis. Some attention is paid to both strengths and weaknesses of arguments and evidence, and the	Considers claims, arguments, artifacts, or information with support of some evidence, although there is limited consideration of quality and misinterpretations may be present. Basic attention is paid to reflecting on the quality,	Approaches claims, arguments, artifacts, or information as facts without further clarification or description. Limited evidence is provided in support of a position, and little attention is paid to its quality, appropriateness, broader context of arguments and		

	evidence, and the analysis fully considers the influence of context and underlying assumptions.	analysis demonstrates a basic awareness of context and underlying assumptions.	appropriateness, and broader context of arguments and evidence, although such analysis may be uneven in support of the argument at times and may ignore some underlying assumptions.	evidence, or any underlying assumptions.
	SLO #2: Construc	t coherent, evidenc	e-based arguments	
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Argument Construction	Constructs arguments in which the thesis claim is creative, clear, and thought-provoking. Evidence directly supports the thesis claim and is well- organized. Evidence is rich, varied, and drawn from high-quality, disciplinary- appropriate sources. The formal characteristics of construction enhance the coherency of the argument, in terms of facilitating complex, critical analysis.	Constructs arguments in which the thesis claim is clear and thought- provoking. Evidence directly supports the thesis claim and is well-organized. Evidence is drawn predominantly from disciplinary- appropriate sources. The formal characteristics of construction support the coherency of the argument, in terms of allowing for critical analysis.	Constructs arguments in which the thesis claim is clear. Evidence largely supports the thesis claim, but may be presented in a way that hinders understanding. Evidence may not be drawn from disciplinary- appropriate sources. The formal characteristics of construction are sufficient to permit the coherency of the argument.	Constructs arguments in which the thesis claim is either overly simplistic, convoluted, difficult to identify, or incoherent. Evidence rarely supports the thesis claim and often appears to be unrelated or inappropriate to the discipline. The formal characteristics of construction hinder the coherency of the argument.

APPENDIX C

Critical Thinking and Inquiry in the Natural Sciences Assessment Rubric

Definition

In Critical Thinking and Inquiry competency courses, students acquire a working knowledge of the foundational tools for reasoning, including constructing sound arguments, evaluating the quality of evidence, and forming judgments about the evidence, arguments, and conclusions of others in natural science disciplines.

Framing Language

A course approved in the Critical Thinking and Inquiry in the Natural Sciences competency should have an intense focus on critical thinking and inquiry in the natural sciences, meaning that critical thinking is an explicit part of the course design. In the context of natural sciences, critical thinking means explaining, predicting, and reasoning about the behavior of natural systems, or the outcomes of observations or measurements, using arguments based on established scientific principles and models. In the context of natural sciences, inquiry means developing, deepening, refining, or extending concepts, principles, and models to explain natural systems, based on empirical observations or thought experiments.

- Assumptions beliefs about a claim, argument, artifact, or information that shape one's understanding
 of it or make an understanding of its significance possible
- Context related aspects of a claim, argument, artifact, or information that indirectly affect an understanding of its significance
- Disciplinary-appropriate methods of analysis conform to supported standards of the related academic discipline

SLO	SLO #1: Critically analyze claims, arguments, artifacts or information.				
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1	
Critical Analysis	Analyzes claims, arguments, artifacts, or information with thorough support of clear evidence, all of which is high quality and appropriate to the analysis. Judicious attention is paid to both strengths and weaknesses of arguments and evidence, alternative explanations are	Analyzes claims, arguments, artifacts, or information with support of clear evidence, most of which is high quality and appropriate to the analysis. Some attention is paid to both strengths and weaknesses of arguments and evidence, alternative explanations are considered, and the	Considers claims, arguments, artifacts, or information with support of some evidence, although there is limited consideration of quality and misinterpretations may be present. Basic attention is paid to reflecting on the quality, appropriateness, and broader context of arguments and	Approaches claims, arguments, artifacts, or information as facts without further clarification or description. Limited evidence is provided in support of a position, and little attention is paid to its quality, appropriateness, broader context of arguments and evidence, alternative explanations, or any	

	considered and weighed fully, and the analysis fully considers the influence of context and underlying assumptions.	analysis demonstrates a basic awareness of context and underlying assumptions.	evidence, although such analysis may be uneven in support of the argument at times and may ignore alternative explanations or some underlying assumptions.	underlying assumptions.
	SLO #2: Construc	t coherent, evidenc	e-based arguments	
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Argument Construction	Constructs arguments in which the thesis claim is creative, clear, and thought-provoking. Evidence directly supports the thesis claim and is well- organized. Evidence is rich, varied, and drawn from high-quality, disciplinary- appropriate sources. The formal characteristics of construction enhance the coherency of the argument, in terms of facilitating complex, critical analysis.	Constructs arguments in which the thesis claim is clear and thought- provoking. Evidence directly supports the thesis claim and is well-organized. Evidence is drawn predominantly from disciplinary- appropriate sources. The formal characteristics of construction support the coherency of the argument, in terms of allowing for critical analysis.	Constructs arguments in which the thesis claim is clear. Evidence largely supports the thesis claim, but may be presented in a way that hinders understanding. Evidence may not be drawn from disciplinary- appropriate sources. The formal characteristics of construction are sufficient to permit the coherency of the argument.	Constructs arguments in which the thesis claim is either overly simplistic, convoluted, difficult to identify, or incoherent. Evidence rarely supports the thesis claim and often appears to be unrelated or inappropriate to the discipline. The formal characteristics of construction hinder the coherency of the argument.
	SLO #2: Construc	t coherent, evidenc	e-based arguments	
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Engagement in Scientific Inquiry	Demonstrates an excellent ability to formulate or address a research question or testable hypothesis, and	Demonstrates a consistent ability to formulate or address a research question or testable hypothesis, and	Demonstrates a basic ability to formulate or address a research question or testable hypothesis, and	Does not demonstrate an ability to engage effectively with a research question or testable

readily identifies and applies an appropriate model for scientific inquiry with a sophisticated use of disciplinaryappropriate methods to test a given question or hypothesis. Demonstrates a consistent ability to interpret outcomes and evaluate conclusions based on the inquiry.

consistently identifies and applies an appropriate model for scientific inquiry with a consistent use of disciplinaryappropriate methods to test a given question or hypothesis. Demonstrates a consistent ability to interpret outcomes, but the ability to evaluate conclusions based on the inquiry may be limited.

begins to identify and apply an appropriate model for scientific inquiry, although there may be an inconsistent use of disciplinaryappropriate methods to test a given question or hypothesis. Demonstrates a basic ability to interpret outcomes, but the ability to evaluate conclusions based on the inquiry is underdeveloped.

hypothesis, apply a model for scientific inquiry, or use disciplinary-appropriate methods to test a given question or hypothesis. Demonstrates no ability to interpret outcomes or evaluate conclusions based on the inquiry.

APPENDIX D

Diversity & Equity Assessment Rubric

Definition

Courses designated in this competency will focus on systems of advantage and oppression, structures of power, and institutions while making connections to US or global societies and examining intellectual traditions that address systems of injustice. These courses will equip students with the intellectual skills and tools needed to connect both their positionalities and experiences as they reimagine their relationships with the world.

Framing Language

A course approved for the Diversity and Equity competency will focus on systems of advantage and oppression, structures of power, and institutions while making connections to US or global societies and examining intellectual traditions that address systems of injustice. These courses will equip students with the intellectual skills and tools needed to connect both their positionalities and experiences as they reimagine their relationships with the world.

- Advantage benefits from systems of power that are afforded to groups of people as a product of material conditions over time
- Ideas of Difference systems by which superficial differences are made politically, socially, and/or culturally influential
- Interrogate a process of critical analysis by which systems of power are questioned
- Marginalization exclusion from systems of power based on ideas of difference
- Oppression disadvantages from systems of power that are used to control groups of people as a product of material conditions over time
- Positionality the way in which the influences on one's own identity impact one's understanding of the world

SLO #1: Describe how political, social, or cultural systems and structures, in the past or present, have advantaged and oppressed different groups of people.

Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Describe political, social, or cultural systems and structures that advantage and oppress	Demonstrates a critical comprehension and articulation of political, social, or cultural systems and structures that advantage and oppress different groups.	Identifies and begins critically articulating ways that political, social, or cultural systems and structures advantage and oppress different groups.	Identifies some ways that political, social, or cultural systems and structures that advantage and oppress different groups.	Unaware, or unable to articulate, that political, social, or cultural systems and structures impact different groups through advantage and oppression.

different groups				
Interrogate own positionality in relationship to these systems and structures	Able to interrogate their own positionality in relationships to systems and structures that advantage and oppress different groups.	Begins to articulate their own positionality in relationships to systems and structures that advantage and oppress different groups.	Begins to examine their own positionality in relationships to systems and structures that advantage and oppress different groups.	Does not examine their own positionality in relationships to systems and structures that advantage and oppress different groups.

SLO #2: Describe how political, social, or cultural systems, in the past or present, have produced and sustained ideas of difference and, in the face of that, how marginalized groups have meaningfully engaged in self-definition.

			• •	
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Describe how political, social, or cultural systems and structures have produced and sustained ideas of difference	Demonstrates critical awareness of political, social, or cultural systems role in producing and sustaining ideas of difference.	Demonstrates active awareness of political, social, or cultural systems role in producing and sustaining ideas of difference.	Demonstrates limited awareness of political, social, or cultural systems role in producing and sustaining ideas of difference.	Unaware of or unable to articulate how political, social, or cultural systems produce and sustaining ideas of difference.
Interrogate own positionality in relationship to these systems and structures	Able to interrogate their own role in the production and sustenance of ideas of difference.	Begins to understand their own role in the production and sustenance of ideas of difference.	Begins to examine their own role in the production and sustenance of ideas of difference.	Unable to explore their own role in the production and sustenance of ideas of difference.
Identify how marginalized groups have meaningfully engaged in self-definition	Can identify, articulate, and value the contributions of marginalized groups to society.	Can identify, and begin to articulate the value of, the contributions of marginalized groups to society.	Can identify, but may still minimize, the contributions of marginalized groups to society.	Minimizes or misidentifies the contributions of marginalized groups to society.

SLO #3: Examine individual and collective responses for addressing practices of disenfranchisement, segregation, or exclusion.

Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Examine individual and collective responses to practices of oppression	Can identify and develop responses to disenfranchisement, segregation or exclusion, and expand on or apply concepts to worldly scenarios.	Can identify responses to disenfranchisement, segregation or exclusion, and expand on or apply concepts to worldly scenarios.	Can identify responses to disenfranchisement, segregation or exclusion, but cannot expand on or apply beyond conceptual descriptions.	Cannot identify or articulate responses to disenfranchisement, segregation, or exclusion.
Interrogate own positionality in relationship to these practices of oppression	Able to interrogate their own positionality in relationship to these practices of oppression.	Begins to understand their own positionality in relationship to these practices of oppression.	Begins to explore their own positionality in relationship to these practices of oppression.	Unable to explore their own positionality in relationship to systems of oppression.

APPENDIX E

Global Engagement and Intercultural Learning Assessment Rubric

Definition

Courses in this competency provide students with knowledge and critical understanding of similarities and differences across world cultures over time and emphasize the development of global perspectives and skills to engage cross-culturally.

Framing Language

A course approved in the Global Engagement and Intercultural Learning competency provides students with knowledge and critical understanding of similarities and differences across world cultures over time and emphasize the development of global perspectives and skills to engage cross-culturally. These courses should also explicitly thematize the enhancement of students' awareness and knowledge of the intrinsically interdependent world in which they are living, so they are able to draw in creative ways on both generalized knowledge and the specialized knowledge of their majors to understand conditions and issues in an enlarged and appropriately global context.

Glossary

- Cultures the norms, values, and other social institutions that can be found in human societies
- Cultural identities the associations of individuals with the defining elements of cultures
- Environmental systems the physical and social context within which culture evolves and is sustained

SLO #1: Describe dynamic elements of different cultures. These elements may include (but are not limited to) aesthetic systems, communication systems, economics, physical environments, ethics, gender norms, geography, history, politics, religious principles, or social beliefs, norms and practices.

Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Description of cultural elements	Describes cultures and cultural identities in complex ways, exploring elements important to cultural identity and the assumptions and perspectives that impact them over time and place.	Describes cultures and cultural identities as multifaceted concepts and identifies some of the assumptions or perspectives that impact elements important to cultural identity.	Describes cultures and cultural identities as multifaceted concepts, though descriptions of elements important to cultural identity may fail to identify factors that impact their assumptions or perspectives.	Describes cultures and cultural identities in simple and static ways and demonstrates little understanding of elements important to cultural identity.

SLO #2: Explain how similarities, differences, and connections among different groups of

people	people or environmental systems affect one another over time and place.				
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1	
Explanation of effects over time and place	Explains how groups of people or environmental systems affect one another over time and place by demonstrating deep knowledge of similarities and differences across groups of people and cultural environments. Explanations critically evaluate evidence for the impact of observed similarities, differences, and connections among different groups or systems.	Explains how groups of people or environmental systems affect one another over time and place by identifying relevant similarities and differences across groups of people and cultural environments. Explanations consistently provide evidence of similarities, differences, and connections among different groups or systems.	Explains how groups of people or environmental systems affect one another over time and place in a simple manner, with a basic awareness of similarities and differences across groups of people and cultural environments. Explanations provide basic evidence of similarities, differences, and connections among different groups or systems.	Struggles to explain how groups of people or environmental systems affect one another over time and place, often expressing indifference or resistance to learning from similarities and differences of groups of people and cultural environments. Explanations emphasize superficial differences or minimize cultural differences.	

APPENDIX F

Quantitative Reasoning Assessment Rubric

Definition

Quantitative Reasoning is the ability to apply mathematical reasoning to formulate and solve problems from a variety of contexts and real-world situations. Quantitative Reasoning involves more than being proficient at computations and data manipulation. Necessary skills include the capacity for analyzing and interpreting numerical and spatial information to explain and predict phenomena in a variety of contexts.

Framing Language

A course approved in the Quantitative Reasoning competency prepares students to apply mathematical reasoning to formulate and solve problems from a variety of contexts and real-world situations. Quantitative Reasoning involves more than being proficient at computations and data manipulation. Necessary skills include the capacity for analyzing and interpreting numerical and spatial information to explain and predict phenomena in a variety of contexts. Individuals with Quantitative Reasoning skills can understand and create arguments supported by numerical evidence and can communicate those arguments. Ultimately, Quantitative Reasoning allows people to identify and understand the role that mathematics plays in the world in order to make well-founded judgments and decisions as engaged and reflective citizens.

Glossary

- Mathematical form an element for communicating mathematical concepts and language
- Quantitative argument an attempt to solve a problem using justifications based in mathematical forms
- Quantitative evidence information that can be observed, measured, and presented numerically in support of an argument

SLO #1: Students will interrelate real world information with mathematical forms (e.g., with functions, equations, graphs, diagrams, tables, words, geometric figures).

(-13.,, -1					
Dimensions/ Criteria Capstone 4		Milestone 3	Milestone 3 Milestone 2		
Representation of information in various mathematical forms.	Converts relevant information into an insightful mathematical form in a way that contributes to a further or deeper understanding.	Converts relevant information into an appropriate and desired mathematical form.	Converts information into a mathematical form that is only partially appropriate or accurate.	Converts information into a mathematical form that is inappropriate or inaccurate.	
Interpretation of information presented in	Consistently explains information presented in mathematical forms and makes	Accurately explains information presented in mathematical forms.	Explains basic information presented in mathematical forms, but occasionally	Explains basic information presented in mathematical forms, but regularly draws	

	T		T	T 1	
mathematical forms.	appropriate inferences based on that information.		makes minor errors related to computations or units.	incorrect conclusions about what the information means.	
SLO #2: Studer	nts will formulate an	d justify conclusion	ns based on quantit	ative arguments.	
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1	
Formulation of quantitative arguments to solve problems.	Quantitative arguments attempted are appropriate, complete, accurate, and elegantly presented (clearly, concisely, etc.) to solve the problem.	Quantitative arguments attempted are appropriate, complete, and accurate to comprehensively solve the problem. Quantitative arguments attempted are appropriate, mostly complete, and accurate to solve the problem.		Quantitative arguments attempted are inappropriate, incomplete, and/or inaccurate to solve the problem.	
Analysis of mathematical arguments to determine whether stated conclusions can be inferred and justified.	Uses the analysis of mathematical arguments as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the analysis of mathematical arguments as the basis for competent judgements, drawing reasonable and appropriately qualified conclusions from this work.	Uses the analysis of mathematical arguments as the basis for competent judgments, drawing basic conclusions from this work.	Uses the analysis of mathematical arguments as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.	
SLO #3: S	Students will comm	unicate the quantita	tive evidence of the	e argument.	
Dimensions/ Criteria	Capstone 4	• .		Benchmark 1	
Communication of quantitative evidence in support of the argument or purpose of the work.	Uses quantitative information in connection with the argument or purpose of the work, presenting it in an effective format and explicating it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, providing strong and explicit numerical support.	Uses quantitative information in connection with the argument or purpose of the work, providing basic numerical support.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support.	
Evaluation of important	Explicitly describes assumptions and provides compelling	Explicitly describes assumptions and provides compelling	Explicitly describes assumptions and provides basic	Provides an incomplete description of	

assumptions that have been made in the solution process. rationale for why each assumption is appropriate, demonstrating an awareness that final conclusions are limited by the accuracy of the assumptions.	rationale for why assumptions are appropriate.	rationale for why assumptions are appropriate.	assumptions and weak rationale for why assumptions are appropriate.
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APPENDIX G

Written Communication Assessment Rubric

Definition

Written Communication is the development and expression of ideas in writing. Effective written communication is deeply dependent on context. Competency in written communication involves adapting different genres, styles, and formal features to address varied audiences and purposes. Increasing competency in written communication requires sustained opportunities for feedback, revision, and reflection across the curriculum.

Framing Language

A course approved in the Written Communication competency can appear in any discipline, as writing is an essential part of learning content in all fields. Assignments for written communication allow students to develop transferable writing capacities, including engaging in invention and revision, adapting writing for specific audiences and purposes, and attending to considerations of arrangement and style. Assignments provide writers with opportunities to adjust their writing in response to audience feedback.

- Audience the person or people with whom one wants to communicate
- Contextual factors elements of a situation that directly and/or indirectly influence decisions about communication
- Purpose the goal of the written communication
- Textual features characteristics of writing that facilitate communication for a writer's intended purpose and audience

	SLO #1: Analyze written texts to understand how they relate to particular audiences, purposes, and contexts as a way to inform one's own writing.						
Dimensions/ Criteria	Capstone 4	Milestone 3	Milestone 2	Benchmark 1			
Analysis of the audience, context, and purpose addressed by a written text	Analyzes the needs, concerns, and expectations of an audience with specificity and insight. Identifies with critical insight and specificity many relevant contextual factors. Demonstrates a keen awareness of purpose as derived from a piece of writing and its	Analyzes the needs, concerns, and expectations of an audience with consistency and basic clarity. Identifies multiple contextual factors, although some significant factors remain unrecognized. Demonstrates an adequate awareness of purpose as derived	Analyzes the needs, concerns, and expectations of an audience with inconsistency, but with an emerging clarity. Identifies some contextual factors, although multiple or especially significant aspects of the situation remain unrecognized. Demonstrates some	Treats audience concerns in superficial or formulaic ways as part of simplistic analysis. Identifies contextual factors, but these may be obvious, irrelevant, or mischaracterized. Demonstrates minimal ability to discern the purpose of a piece of writing from its textual features.			

	textual features.	from a piece of writing and its textual features.	ability to discern purpose from a piece of writing, though may overlook important relationships between purpose, context, and audience.	
Identification of characteristics of a written text that may inform one's own writing	Identifies strengths and weaknesses of a given piece of writing with authority and discernment. Demonstrates inventiveness and creativity in devising strategies for revising a text to better address audience concerns, respond to contextual factors, or achieve a given purpose.	Identifies strengths and weaknesses of a given piece of writing with coherent justification. Identifies some strategies for revising a text to better address audience concerns, respond to contextual factors, or achieve a given purpose.	Demonstrates emerging capacity to identify strengths and weaknesses of a given piece of writing. Identifies some strategies for revising a text, though these may be insufficiently connected with audience, context, or purpose.	Demonstrates a reluctance to identify strengths and weaknesses of a given piece of writing. Struggles to identify strategies for revising a text, or misapplies formulaic strategies or rigid rules for revision suggestions.
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SLO #2: Create and revise written texts for particular audiences, purposes, and contexts.

Dimensions/ Capstone Milestone Milestone Benchmark

Dimensions/	Capstone	Milestone	Milestone	Benchmark
Criteria	4	3	2	1
Demonstration of adequate consideration of audience, purpose, and context in the creation of written text	Artfully tailors written texts for the specified audience, even when encountering complex or unfamiliar audiences. Demonstrates facility with available structures, including genre, organization, content, and language choices, with all features of a given text comprehensively oriented toward its audience and	Tailors written texts for the specified audience, but may overlook some critical considerations or write for a more familiar audience. Demonstrates consistent ability with available structures, including genre, organization, content, and language choices. Brings an understanding of audience and context into most, but not all, of a	Somewhat tailors written texts for the specified audience, but understanding of the audience may be broad or overly simplified. Demonstrates a basic ability with available structures, including genre, organization, content, and language choices. Basic features of a given text are oriented toward, and suitable for, the specified audience and context.	May attempt to write for the specified audience, but understanding of the audience may be broad or inaccurate. Demonstrates a developing ability with available structures, including genre, organization, content, and language choices. Written features of a given text show minimal consideration of the specified audience and context.

	context.	given text.		
Revision and response to feedback about one's writing	Thoughtfully incorporates comments and suggestions into later drafts of work, integrating feedback that enhances the writing based on considerations of audience and purpose. Recognizes when a complete revision of the work is needed.	Incorporates essential revisions into later drafts of work and some suggestions, generally discerning those that enhance the writing in relation to considerations of audience and purpose. May make some significant revisions to the work.	Incorporates necessary revisions and some suggestions into later drafts of work. Revisions may not be integrated well.	Minimally responds to feedback by making necessary revisions that are explicit in the feedback.

SLO #3: Through oral or written reflection, demonstrate awareness of one's writing choices as well as how one's own writing contributes to ongoing conversations.

Dimensions/	Capstone	Milestone	Milestone	Benchmark
Criteria	4	3	2	1
Reflection on choices made in light of audience, context, and purpose of writing	Precisely and insightfully identifies writing choices made in light of purpose and in account of audience and context. Locates these choices as part of the writing process or through characteristics of a text.	Identifies several significant writing choices made in light of purpose and in account of audience and context.	Identifies some writing choices or processes. Connects these writing choices in minimal or partial ways to considerations of audience, context, and purpose.	Demonstrates a minimal ability to communicate about writing choices that account for audience, purpose, context. Primarily reflects acontextual notions of "good" or "bad" writing or little sense of how a piece of writing has developed.

APPENDIX H

MAC Program Assessment for the Critical Thinking & Inquiry in the Natural Sciences Competency

Instructions for completing the form:

1. Identify which course assignments best address the MAC Critical Thinking & Inquiry in the Natural Sciences (CTI in NS) student learning outcomes (SLOs). The same assignment may address multiple SLOs, but it's worth noting that, according to faculty involved in past assessment workshops:

"Better prompts either have one assignment for each SLO, or clearly indicate how each part of a single assignment speaks to each SLO."

"The more detailed and layered the prompt, the higher the quality of work often turned in."

- 2. In the left-hand column below, briefly explain how the chosen assignments address the SLOs.
- 3. Using the scale in the faculty-developed CTI in NS rubric (<u>linked here</u> and available at <u>mac.uncg.edu</u>), score the work product of **every student** in the section who completed the assignment.
- 4. Aggregate the scores and enter them into the right-hand scoring columns below.
- 5. Respond to the three questions at the end of the form.
- 6. Upload your completed form to the Box folder assigned to you or email it to gened@uncg.edu by May 8, 2023.

Your Course and Section Number:					
Your Name:					
SLO #1: Critically analyze claims, arguments, artifacts or information.					
Briefly describe the assignment and how it addresses SLO-1. [Type your response here]		# of students scored as Capstone	# of students scored as Milestone	# of students scored as Milestone	# of students scored as Benchmark
Total number of students who completed this assignment: [Type # here]	SLO-1	[Type # here]	[Type # here]	[Type # here]	1 [Type # here]
SLO #2: Construct coherent, evidence-based arguments.					
Briefly describe the assignment and how it addresses SLO-2.		# of students scored as	# of students scored as	# of students scored as	# of students scored as
[Type your response here]	SLO-2	Capstone 4	Milestone 3	Milestone 2	Benchmark 1
Total number of students who completed this assignment: [Type # here]		[Type # here]	[Type # here]	[Type # here]	[Type # here]

	Reflection on Results				
1.	What do the data tell you about how well students are achieving the competency's learning outcomes? Are the results what you expected? Please explain.	[Type your response here]			
2.	How will you use this evidence in your MAC course to improve student learning?	[Type your response here]			
3.	Comments questions or	[Type your response here]			
3.	Comments, questions or suggestions related to the MAC assessment process you're participating in?				
Upo	dated January 19, 2023				

APPENDIX I

Process feedback from course instructors who participated in Fall 2022 or Spring 2023 MAC learning assessment

Background

The final reflection question on the Course Results Reporting Form asks participating course instructors: "Do you have comments, questions or suggestions to share related to the MAC assessment process you're participating in?" Approximately half of the participants responded to this question. Their feedback is shared below, sorted into four broad categories of reference:

- 1. Appreciative remarks
- 2. Concerns
- 3. Suggestions
- 4. Miscellaneous

References to specific course titles have been omitted and additions of competency names have been inserted in connection with particular SLOs for the sake of clarity.

1. Appreciative remarks

- This was an excellent exercise for me to see where my students might be falling behind and has me rethinking how I present assignments.
- Thank you for the opportunity to reflect upon and improve my assignments.
- Thank you for your service.
- This is my first time participating in MAC Critical Thinking and Inquiry assessment. It has
 certainly pushed me to think more carefully about how my assignments meet the goals
 specified in the SLOs. Going forward, I also plan to use separate assignments to assess
 each SLO. Past assessment workshops were right!
- Thank you for your work on behalf of UNCG. While I am not a believer in this process, I know that those of you charged with undertaking it are working hard and well in an effort to produce good effects for our teachers and students.
- No, I really appreciate all the support!
- Thank you.
- Although the MAC assessment process makes additional demands on instructors, I also find it to be instructive for development of pedagogical strategies, which will benefit me as I prep a revised course format of [course title omitted] for Fall 2023 to incorporate an updated text edition, new online learning system, and pedagogical strategies. No pain, no gain?
- I have found this very beneficial in diving deeper into the [Global Engagement & Intercultural Learning] SLOs for the course and looking at how the assignments match the stated outcomes.

- I liked the process of going back to the assignment and looking at the smaller sample size more closely. Sometimes as an instructor, even as one who knows the value of reflective practices in teaching, you can get caught up in the stress of the semester and forget to step back and reflect yourself, even as you are instructing your students to do so.
- Thank you for your support during this process!
- I'm delighted to have been a part of this assessment process. I think Frances Bottenberg presented the process really well and I found her instructions easy to follow. Her language is simple and concise and cuts through any extraneous stuff straight to what matters. It's been a very informative and valuable process to evaluate my students' learning for UNCG's general education program, Minerva's Academic Curriculum.
- No, but thank you for asking.
- Thank you for this opportunity. It made me analyze these [Global Engagement & Intercultural Learning] SLO's and I'm glad I did.
- The process is good as it helps me, as an instructor, see what the course material is helping the students achieve. I would appreciate more recorded videos on how the assessment works to help me during the end of the semester when I am preparing the results.
- This is a helpful process, and I appreciate the ability to reflect on this course!
- The assessment was good in that it made me reflect on the purpose of the course that I teach and on the way the course fits into UNCG's overall objectives.
- The course structure and assessment provide excellent competency in achieving students' learning outcomes. The course structure provided by the course coordinator and team is fully prepared for course instruction and full of student learning resources. The course assessment of MAC development provided a great measurement of students learning goals during my course instruction period. During my first term of course instruction in [course title omitted] and participating in the MAC Development program, I had an excellent experience in the course instruction at the University of North Carolina at Greensboro. Thank you.
- This was a useful pilot assessment of QR competency. It would help us revise the QR assessment rubric for actual future implementation.
- Through participation in this assessment process, I recognize that there are ways in which I can be more intentional in my assignments (e.g., encourage more reflection as opposed to seeing if it emerges). While it is stated in my syllabus, I think introducing the course emphasizing that this course is part of the MAC curriculum (in addition to the lens through which I teach) could be helpful in establishing expectations.

2. Concerns

• I think there is value in this MAC assessment process relative to providing an objectified perspective of course design and instructional effectiveness based on numerical data. That said, as a humanist educator, I think that numerical data alone is not sufficient to providing an understanding of so-called "best practices" for teaching and learning. There is always a "story" behind a student's desire and capacity to learn. These days, I believe that many of the deficits we see in new undergraduate student success has to do with their conditioning to standardized and technicized teaching practices (K-12) that do not emphasize

- independent thinking; open, interactive discussions; and foundational skills of deep reading and written communication.
- While I appreciate what this study is trying to achieve and se its value, as an adjunct instructor who only teaches on course at UNCG, this process felt cumbersome and misplaced. I would have gladly reviewed materials that help orient my instruction towards achieving the desired SLOs but doing extra work without even a small stipend for my time comes across as exploitative.
- Data from this rubric must be taken in context. I am concerned about what will be done with decontextualized rubric data.
- While I certainly understand, accept, and am happy to participate in the process for the improvement of the current MAC curriculum for our University and our students, I always feel that these assessments are efforts to quantify the unquantifiable. Since we are still in the early stages of implementing the MAC curriculum, I also think that we as a University community need to have some conversations on the assessment of the success of the MAC curriculum for the achievement of a quality liberal arts education. Now that we are a couple of years into the new curriculum, it appears that the MAC is demonstrating some clear weaknesses for ensuring that students achieve a broad education that includes courses in all major disciplinary categories. The MAC categories simply do not emphasize strongly that students complete significant course work in all of the categories (the Humanities, Social Sciences, Natural Sciences...) that have traditionally defined a liberal arts education. This is a weakness that was not present to this degree in the previous GEC curriculum. It would be nice if, in addition to evaluating MAC SLOs, we could also address how to improve this shortcoming of the new curriculum. I say all of this with respect and appreciation for all involved in the curriculum development process and gratitude for being a part of the UNC Greensboro community.
- This is a lot to ask lecturers to do when the university won't even extend our contracts beyond singe-year affairs. If you don't care how we're going to feed ourselves and our families beyond the immediate year of employment, why should we care to help the university complete long-term assessments of its programming? Another issue with the current assessment strategy is that it really fails to take into account the growth nature of the skills under assessment. SLOs need to be aligned with multiple assessments across the semester (not individual assignments) and student achievement needs to be seen within the context of these multiple assignments. I have students who score well on one SLO for one assignment, and then score very low on the same SLO on a different assignment. Certainly a narrative of their learning exists as a conversation between those two performances rather than as one or the other snapshot?
- I think the "university" did a poor job of communicating the purpose of this rubric/MAC assessment. We were told about it in the beginning (August) and then waited several months to hear anything from our department course coordinators about how to evaluate our students on this rubric. If expectations are not made clear between all involved, then how can this rubric/process possibly accomplish its aim?

3. Suggestions

• I would enjoy doing this exercise in a workshop setting with other professors, with the opportunity to compare & discuss results. The workshop setting would also provide

participants scheduled, protected time to engage in this assessment process. Ideally, participation in this assessment process would take place during an interim period such as the summer, when professors are not teaching or are teaching less. This would allow for more time to comfortably complete the assessment process.

- I would like more information on next steps.
- Thanks again for providing an opportunity to reflect on the bigger picture. If anyone has feedback, I would appreciate knowing it. I am always open to suggestions.
- Unfortunately, my class that was selected for this assessment was a very low enrolled class. Only 8 students enrolled; of those 8 students, only 5 students passed the class; 1 student received an incomplete; 2 students failed (because they submitted *no* assignments to grade, despite my constant encouragement and reminders). Thus, I'm afraid the limited assessment from this class may not be very helpful for the overall MAC assessment.

Furthermore, the rubric does not allow for any differentiation among student years. For example, the students who scored high on the rubric were mainly juniors and seniors who had some prior experience with such classes. It is something to perhaps consider when assessing the results.

- We used to have a class called ISL (Integrated Studies Lab) attached to another course that
 most freshman took. It was essentially a welcome to college class. It seems that would
 again be a good idea, especially with students now who have been robbed of a normal high
 school experience for years.
- It's not entirely clear what the difference between [Critical Thinking & Inquiry] SLO 1 & SLO 2 is. Perhaps this is something specific to this assignment/my course. Perhaps I'm mistaken and the confusion between the two SLO's is an indication I'm not really measuring at least one of them very well. I'd be very curious to hear what other reviewers make of the sampled SWP's.
- Frances [Bottenberg] has been a wonderful resource throughout this process and I thank her for her help and for responding to my many questions. I have two suggestions for the future: 1.) a list of assignment activity ideas (ideally by discipline) and 2.) examples of past student work and the results of the scoring. Regarding activity ideas, this ended up being a good way to collaborate within our department but initial ideas would have been very helpful. As I hadn't done this before, I did my best with the scoring, however, an example would have been very helpful to have a better idea if I was on the right track.
- Before the pandemic, we had in person faculty discussion related to the MAC assignment. I think we can resume this if the conditions allow us to do so.
- I think it would be very helpful if there were some Q&A sessions provided to the instructors on how to complete this assessment.
- I suggest some additional clarity in the wording of the [Global Engagement & Intercultural Learning] SLOs and criteria by eliminating redundancy and vagueness.
- While [the assignment I chose for scoring] seems to me to fit the criteria of a MAC-centered exercise [in the Global Engagement & Intercultural Learning competency], it doesn't capture the breadth of cross-cultural experiences I offered students in this course. I realize that I have constructed this course around a series of role-playing discussion exercises that featured particular points in modern East Asia history, including Chinese, Japanese, Vietnamese and Korean societies. These assignments include oral and written components and therefore can't be a assessed as "stand-alone" assignments.

- One difficulty involved multimodal work. The Argumentative Project [in my course] invites
 multiple forms of submission (the students whose work I'm submitting include one who
 made a video and another who made a website). It might be helpful to have guidelines on
 incorporating non-traditional assignments into this process.
- Some parts of the rubric might be unrealistic as they ask for higher-level actions that might not be apparent in one assignment or in a one-semester course. For example, while I did give a few people the highest mark in the second item in [Written Communication] SLO-2, I can't know from one assignment if they would know when a complete revision is in order, especially if they did a good job on the assignment. I can guess that some would know that, but, unless they are faced with something that needs an overhaul, I wouldn't know for certain.
- It seems that the rubric serves multiple purposes, both to highlight the maximum potential in the SLOs and as a grading tool. If this is to continue to be the case it might be beneficial to highlight in the final submission document only the levels the students in a general education are expected to achieve.
- I think the criteria about self-reflexivity needs greater visibility as an area of [Diversity & Equity] SLO assessment.
- The [Diversity & Equity] criteria descriptions need to be redesigned so they pointedly ask one question. I have done this by boiling them down to one verb and one noun. You can see my definitions in the condensed table that is attached, "creating stratification", etc. Especially problematic is the habit of defining the quantity you are looking for with several parallel but not exactly equivalent terms. Also, I have arranged the SLO's and their criteria definitions in one 7.5x14 inch page so they can be refered without a lot a skipping around.
- I found this exercise both enlightening and frustrating. I think this is a very important competency for our students. I also find this breakdown of the SLOs' presentation of ideas to be artificially separate and repetitive. In other words, the [Diversity & Equity] SLOs themselves make sense, but the way they are separated out in this [rubric] document makes less sense. Learning about systems of oppression and one's own positionality with regard to them is an organic area of learning. While applying the broad SLOs to course and assignment structure works nicely, this breakdown of the SLOs isn't nearly as useful and was difficult to employ in the context of an actual course and its assignments.

4. Miscellaneous

My course takes a non-traditional approach to research and content delivery. Students are
not writing a traditional research paper aimed at an academic audience. Instead, they are
asked to research and tell stories using digital storytelling tools. I feel like the notion of an
"argument" is going to be quite different in my class versus a class with a more traditional
research paper approach to the assignment.

On a similar note, a large portion of my class is focused on oral presentation of research. In fact, most of the work that scaffolds up to the final project is presented orally – and the final project itself also has an oral component. These types of reports of course fit within the rubrics' language (which is agnostic when it comes to the ways in which the students' research is delivered), but would be impossible to provide examples of for this type of assessment activity.

• As department chair, I wanted to support an adjunct in completing this assessment in order to learn what the process requires. Instructions are clearly presented and there has been

- effort put into simplifying the process as much as possible given the assessment expectations. My one observation is that data on assignments that combine SLOs may not be differentiated in the reporting, particularly when a course is randomly selected for the first time
- I take a lot of time grading assignments and providing very explicit feedback in all of my classes. In my experience, although I remind students they are responsible for using previously provided feedback (i.e., from other assignments) for future assignments, I find there are some who do not look at feedback. Not only do students get feedback on the content of their assignment, but I also provide feedback on grammar, syntax, vocabulary, APA, etc. That said, they check their grade and move on without using the feedback (as evidenced by subsequent assignments). All of that to say, I think it's important to recognize that we can try our best to help students improve, but ultimately, it's on them to use the resources and support provided.
- The most difficult thing is to classify questions into the three categories listed here.
- The assessment process in this course looks good. We not only give HomeWorks but also provide conceptual True/False questions.
- I'm not sure I recall the basis for selecting the students. The ones selected were fairly representative of the diversity of the class in a social demographic and a grade perspective. I had one student who stopped participating in class, and I swapped that student for another as a means to complete the evaluation.
- [course title omitted] is a key course for the MAC Diversity & Equity SLOs.
- An interesting experience!

APPENDIX J

MAC competency reviewed: CTI in Humanities or Fine Arts

Please: Use the following questions to organize your conversation. Compose a short statement (about a page, bullet point ok). Thank you!

- 1. What did you see? (analysis of results)
- 2. Is the competency being learned?
- 3. Did you come across any (in your view) exemplary assignments?
- 4. Is there anything you want us to share with instructors in this competency?

What did you see?:

- -Students hitting SLOs (statements, arguments)
 - Could identify an argument (capstone, culminations), but others seemed to not know what was being asked
- -Also, in many cases, students did not meet the SLO's because of assignment guidelines
- -Diverse scores, but students followed guidelines/instructions even if those were disconnected from MAC SLOs
- -Many students knew what was being asked (structure) even if they did not execute the SLOs.
- -More summarizing occurred throughout responses versus higher order analysis
- -Responses contained a lot of regurgitation, lack of structure, lack of understanding of what a claim/argument might be
- -Evidence of students learning to construct arguments/analyze
- -"Dude, where's my thesis statement!" lack of thesis statements
- Students demonstrated a lack of reading comprehension skills in many assignments
- A lot of great and creative assignments that didn't fully meet the SLO requirements

Is the competency being learned?

- -How could you hit these benchmarks in musical appreciation courses or digital presentation courses? It could be effective to write a 1- or 2-page critical 'reflection' on the approach you chose to take in creating your presentation or artifact. Why did you record your video in black and white? How do you address criticisms of that approach? Why did you storyboard your video the way you did? What were some alternatives, and why did you not take one of those paths? How might someone critique your assignment, and how would you respond to that criticism? (Student critiques may be really worthwhile here.)
- -Professors appear to be in the process of approaching the SLO benchmarks (analyzing claims, weighing evidence) and the SLOs can be easier to approach in classes where there is a higher expectation for writing/information literacy than some other courses

Did you come across any exemplary assignments?

-MHFA #s 10, 5 and 13 were especially good, consistent high student achievement.

Is there anything you want us to share with instructors in these competencies?

- -Align course SLO's more clearly with assignment guidelines
- -Utilize student examples that demonstrate the SLO's (good examples and poor examples)
- -Multiple choice exams are highly unlikely to satisfy either SLO ******
- -It could be harder to achieve these SLO's in larger classes. Professors may need more support (or smaller classes) to reach these benchmarks.
- -Assignment instructions need to be more transparent and explicit. (We recommend transparent assignment design workshops based on the SLO's or assignment templates based on the SLO's.)
- -MAC course instructors might benefit from facilitated in-person shared group guidance in the competencies

APPENDIX K

What did you see?

- Variety of assignments that different in the extent to which they addressed the SLOs
 - Didn't have to be an essay to address the SLOs
 - Prompts given to students could be more explicit in adhering to the MAC rubric
 - Is the rubric realistic though? When do you have time to actually teach this? If 2 is the goal for early level classes, should there be more variation in that lower end of the scale that allows you to capture different levels of learning/competency? The scale could be too crude at the lower end of the scale to reflect what the students are truly learning.
 - Overall descriptions of the assignment were great; having direct prompts that were given to students would be especially helpful for evaluation.

Is the competency being learned?

- This is a causal question, but the data we're given don't seem sufficient to evaluate that claim. → could there be some kind of pre-test/post-test thing at the beginning and end of the semester to really assess?
- The assignments reflect the competencies to an extent, but in early level classes there's
 a lot of basic stuff (e.g., read the syllabus) that needs to be learned before the
 competencies can be really achieved.
 - It might be helpful to have a more foundational SLO that is addressed alongside the other competencies for the competencies to be successful.
- Given the nature and breadth of the assignments, it can be hard to know.
 - Did they learn it or did they bring it to the course? Is this all just conscientiousness?
 - Sometimes it seems like profs would have to cut content to explicitly teach how to, for example, evaluate an argument. Is evaluating a claim relevant to teach, for example, social psychology?
 - Whose job is it to initially teach those skills?

What exemplary assignments did you see?

- SBS 06 had a great assignment that was intentional and clear in what it would achieve in relation to the SLOs
 - The assignment had students reading two sources, answering specific questions about them, and critically evaluating them.
 - o It also showed that to address SLOs, assignments do not have to be essays.

Is there anything you want us to share with instructors in this competency?

This is more to admin
 if you want courses to better address these
 competencies, professors need the time and resources to implement these
 changes. Because to really address these competencies, profs need to think
 about the structure of their courses and assignments.

- Professors are not really incentivized to change their classes. Is this a check boxing exercise or a shift in the learning paradigm for UNCG? If it's the latter, then expectations for teaching need to shift and be in complement with expectations for research and service.
 - E.g., \$500/\$1000 for changing a course in a way that better reflects MAC competencies
 - Profs also need some example assignments to address these MAC competencies.

APPENDIX L

Overall analysis of results:

For the most part, students were successful in meeting Milestone 2 for SLO 1. Fewer students met this milestone for SLO 2 Criteria 1, which is to be expected because constructing an argument (SLO 2 Criteria 1) is higher in Bloom's Taxonomy than analyzing an argument (SLO 1). For SLO 2 Criteria 2, we were unable to rate for many assignments (because the assignment did not ask students to formulate or address a research question or testable hypothesis). Of the assignments that we were able to rate for SLO 2 Criteria 2, many students exhibited difficulties and did not reach Milestone 2.

Overall comments to any instructor teaching a class in the MAC for Natural Sciences:

- 2 separate assignments works well (1 for each SLO).
- Specific instructions for the students that include keywords from the rubric help guide the work (i.e. be sure your thesis statement is clear, be sure to discuss the strengths and weaknesses of the claim).
- Avoid asking the students to regurgitate facts. These SLOs are about critical thinking of
 material presented or created. Rather than just stating what they have read or learned
 already, you can use that as prep in the assignment, but it can bog down assessment
 when it is unclear if it was meant to be part of the SLO rubric.
- SLO 1: present a figure or a statement from a reading source that is associated with the course (but may not have been reviewed or covered by the instructor) OR a figure they have created to analyze (like a results submission).
- SLO 2 Criteria 1: Overall well understood by instructors in their assignments. Could
 guide students to sources needed to back up their arguments in the instruction (is the
 textbook/lecture okay as a source or do you ask them for outside sources as citations).
 The more detailed the instructions, the easier the assessment alignment.
- SLO 2 Criteria 2: Most assignments did not have this criteria (and we know it is going away in the Fall of '23) but it was meant to be sure the students did a form of scientific inquiry and were able to think of a way to explore a research question. They did not need to do an experiment but even just the ability to look at a question, construct a hypothesis, and lay out a possible methodology is needed for this criteria.

Specific Feedback for the Assignments graded Sp 23

MNTS 01

This assignment did not align with the rubric very well. A bit of expansion on the second question would help with critical analysis (SLO 1). For example, if students were asked not just what the evidence was but also to evaluate the quality of the evidence, this question would work well for SLO 1. Question 3 worked well for SLO 2 Criteria 1. Difficult to apply questions to SLO 2 Criteria 2.

MNTS 02

The first assignment was well aligned with SLO 1, although the point about correlation not equaling causation might be made more clearly if the example involved two variables that were spuriously correlated rather than two that are in fact causally linked. The essay for SLO 2 Criteria 1 would be more aligned if the prompt asked for the student to take a specific point of view on the subject, rather than a factual report. No way to judge SLO 2 Criteria 2.

MNTS 03

Difficult to grade due to the highly technical nature (difficult for us to know if the reasoning/ analysis was clear). Also, it seemed that the assignment was asking for factual information (describing cellular pathologies) rather than any sort of critical analysis. A slight modification to this assignment, such as asking students to evaluate the quality of evidence or study design, would make this assignment better aligned with SLO 1. The second assignment was well aligned with SLO 2 Criteria 1 and 2.

MNTS 04

Both SLO 1 and 2 were on the same assignment but it looks like 10 different students' work was submitted instead of 5. The request for specific strengths and weaknesses and the critique of the claim were nicely aligned with SLO 1 and SLO 2 Criteria 1 (thank you). There was no way to judge SLO 2 Criteria 2.

APPENDIX M

MAC competency reviewed: Global Engagement & Intercultural Learning

Please: Use the following questions to organize your conversation. Compose a short statement (about a page, bullet point ok). Thank you!

1. What did you see? (analysis of results)

- -Selection of assignments submitted determined our ability to assess how well students achieved SLOs
- -Some assignments more appropriate to SLOs than others; some not at all
- -Problem with closed ended assignments (e.g., T/F, multiple choice, list these...) to demonstrate competency in SLOs
- -If same assignment addresses both SLOs, it would be helpful if instructors specified which part(s) of assignment addressed which SLO

2. Is the competency being learned?

- -Overall, yes
- -Evidence provided could be stronger
- -Very dependent on quality of assignment

3. Did you come across any (in your view) exemplary assignments?

- -Assignment # 23 was well designed and did an excellent job of helping students achieve SLO competency.
- -# 9 topic: address analytically one or more pieces of short fiction by transnational authors addressing themes of migrants and cultural adaptation.
- -Assignment #2
- -Assignment #3

4. Is there anything you want us to share with instructors in this competency?

- -Provide answer key or question prompt
- -Instructors must collect something to assess SLOs
- -avoid closed ended assignments (e.g., T/F, multiple choice, list these...)
- -Issue with assessments submitted in the target language for Languages, Litteratures, and Cultures courses.