General Education Assessment
Working Plan
Tidewater Community College
Fall 2015

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I.   Introduction: General Education Core Competencies at TCC

In 2006, the State Board for Community Colleges, the governing body of the Virginia Community College System, approved in policy seven general education competency areas to include: Communication (oral and written)[1], Information Literacy, Critical Thinking, Cultural and Social Understanding, Personal Development, Quantitative Reasoning, and Scientific Reasoning (See Appendix A). General education competencies apply to all graduates in both transfer and career and technical degree programs (See Appendix B). Further, and per Virginia Community College System Policy 5.0.2.0, "general education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons…unbounded by disciplines and [it] honors the connections among bodies of knowledge."

Given that graduates of transfer and career and technical degree programs are expected to develop in all competency areas, the college is committed to identifying one or more competencies that shall be developed for each course offering. Once identified by the faculty, each faculty member teaching the course is required to fully incorporate one or more course activities that will facilitate and support student development of the agreed-upon competency.

A. Role of Assessment of General Education Core Competencies
Assessment of general education core competencies is critical to the college's mission and for accreditation purposes, as recognized in 3.5.1 by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).

B. Role of Faculty in Developing, Implementing, and Maintaining Plan

In August 2010, TCC was one of twelve community colleges selected by Association of American Colleges and Universities (AAC&U) to take the lead in the "Roadmap Project" initiative funded by MetLife Foundation. The purpose of this initiative is to provide assistance to institutions in

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[1] The State Board for Community Colleges defined Communication as a single competency that incorporates both oral and written communication. In May 2012, TCC faculty recommended that the Communication competency be divided into two distinct areas (oral and written communication) for assessment purposes.

creating proactive programs of academic support that are tied to expected learning outcomes. TCC sought assistance from AAC&U in developing and implementing its General Education Assessment initiative.

During 2011-12, 15 faculty members were recruited by the Vice President for Academic Affairs and Chief Academic Officer (hereafter referred to as Vice President) to serve as assessment coaches with responsibilities to engage faculty in the GEA process. During fall 2012, the assessment coaches were collectively designated as a subcommittee of the Instruction Committee.

In spring 2012, TCC chose the AAC&U Value Rubrics for use in the assessment of its general education competencies. These rubrics are the framework TCC is using to assess cumulative learning outcomes in general education competency areas versus content mastery for a particular course—a major shift for TCC faculty. Nearly 200 faculty were initially introduced to this concept in May 2012 at the college's annual *Learning Institute*. At this meeting, faculty also adapted VALUE Rubrics for Written Communication, Oral Communication, and Information Literacy (See Appendix C).

A preliminary five-year assessment cycle was drafted in fall 2012, shared with faculty at Convocation, reviewed by existing governance committees under the leadership of the Instruction Committee, and eventually finalized. Further, at a follow-up *Learning Institute* in October, 75 faculty participated in adapting rubrics created by AAC&U for Quantitative Reasoning and Critical Thinking as well as developing an original rubric for Scientific Reasoning.

During fall 2012, 40 faculty volunteers completed training to assess student learning in Written Communication and Information Literacy. The faculty assessors, some of whom had already participated, also completed training in spring 2013 to assess student learning in Critical Thinking, Scientific Reasoning, and Quantitative Reasoning. During the 2012-13 academic year, 64 assessors evaluated student learning in five general education competency areas: Written Communication, Information Literacy, Critical Thinking, Scientific Reasoning, and Quantitative Reasoning.

In May 2013, 160 faculty attended the *Learning Institute*. Unlike the previous learning institutes that focused on theory and the basic concepts of general education assessment, there was a purposeful movement to application-based workshops and presentations. At the *Learning Institute*, student learning findings from assessment of Written Communication and Information Literacy were shared. Faculty were also given hands-on experience in assessing a student work product for student learning in Written Communication. Multiple workshops were offered to assist faculty in developing assignments to foster student learning in many of the competency areas. Finally, faculty developed the college's Personal Development rubric which was finalized in fall 2013.

TCC was asked during summer 2013 to continue its participation in the Roadmap Project by serving as a mentor institution to one of the ten newly selected community colleges. Additionally, the college was awarded a grant to address the following core questions:

1)   How does learning, as a defining element of our campus culture, support the psychosocial development of our students (how does the epistemic connect to the eudemonic)?
2) How and why does an intentional commitment to the psychosocial development of all of our students positively affect their learning and civic engagement?

As a result of the grant, in fall 2014, TCC faculty in health-related fields attended an interactive workshop on the best practices for curricular infusion of content related to cultural and socioeconomic factors that influence an individual's experiences with the healthcare system. Participants developed inter-professional assignments that aligned Cultural and Social Understanding rubric. The Office of Intercultural Learning webpage provides resources and assignments generated from this workshop.

General education assessment continued to be the primary focus of the May 2014 *Learning Institute*. An assessment consultant, Linda Suskie, was hired to review the college's draft general education assessment plan along with findings through fall 2014, and was the featured speaker at this May 2014 event. Large group and small group exercises were conducted to aid the participating faculty in developing assignments to help students achieve course learning outcomes while also developing them in the

general education competency areas. Training for faculty interested in serving as assessors was offered.

In spring 2015 work continued with AAC&U's grant as TCC faculty and staff at the Sentara Center for Simulation & Immersive Learning at Eastern Virginia Medical School developed a co-curricular standardized patient program that supported student learning by advancing the psycho-social well-being of students by actively involving them beyond the classroom.

Two hundred eighty (280) faculty attended the 2015 *Learning Institute* and self-selected introductory, intermediate, or advanced assessment workshops based on their experience with and understanding of the GEA. Learning outcomes included creating meaningful teaching applications for developing competencies and employability skills. Dr. Kathryne McConnell, Director of Assessment at Virginia Polytechnic Institute and State University, was the featured speaker at the Institute. A panel discussion including representatives from local employers and Old Dominion University focused on the application of general education competencies to employability skills. Applicable general education competencies on course outlines were reviewed and adjusted as necessary during discipline meetings on Day 2 of the Institute. Also on Day 2, 21 faculty professional development sessions were offered on general education assessment and pedagogy topics.

II.   Assessment Planning and Development

A preliminary plan and assessment cycle were developed by Academic Services and approved in fall 2012. Based on findings and lessons learned during the pilot along with college resources, a revised and more extensive plan was developed during summer 2013 and subsequently approved by the Instruction Committee in spring 2014.

A. Assessment Pilot

According to the preliminary plan and through a predetermined rotation, one to three of the general education competencies were to be assessed each semester over the next five years, beginning with academic year 2012-13. In each rotation, student assignments were collected from a variety of courses that seemingly contributed to the general education

competency under assessment. The assignments, or student work products, were not additional requirements for selected courses; rather, the assignments were authentic and embedded as requirements for all students enrolled in the courses.

Beginning in fall 2012, the college launched the plan as a pilot project. Each competency was piloted once.

1. Sampling

Course selection input was solicited from assessment coaches. Then, the courses recommended for inclusion underwent a two-fold process ensuring: 1) the General Education Competencies under study were indicated on official course outlines in i-INCURR; and 2) proposed courses had a significant number of enrollees with 30 or more credits at TCC, had student enrollees from both degree types (career/ technical and transfer) who were representative of TCC's degree-seeking population, and were offered in a variety of course formats (traditional, hybrid, online) as identified by the Office of Institutional Effectiveness (OIE) (See Appendix D). Students selected for inclusion during the pilot were those who had earned 30 or more academic credits and were identified for participation by OIE through a stratified random sample process.

For each general education competency area, 50 students were randomly selected for inclusion in the pilot. Uncertain of what to expect regarding the faculty response rate, student attrition, and the appropriateness of the work products submitted, an additional 25 students were randomly selected as "substitutes" for each competency area. The goal was to collect and assess 50 student work products for each competency during the pilot.

2. Methods

Prior to each semester, faculty whose classes were selected for inclusion were contacted by Academic Services to inform them of their course's inclusion and general expectations. Once the tuition deadline date passed for classes to adjust for student attrition, OIE submitted a list of selected students to Academic Services. Academic

Services contacted each respective faculty member informing them of the student(s) selected for inclusion along with detailed instructions for submitting a student work product(s). Upon receipt of each student work product, Academic Services coded it and removed all student, course, and faculty identifiers before assessment to protect anonymity.

Twenty-five trained assessors scored the student work products submitted each semester during the pilot phase. Each work product was reviewed by two assessors who assigned a score between 0 (no display of learning) and 4 (capstone-level learning) for each dimension constituting a general education competency area. When the score differential was one or less, the two scores were averaged so that the student had a final score for the dimension. If scores differed by more than one on any dimension, a third assessor was requested. The third score was used to average a dimension score[2]. A third score was also requested in cases where one of the first two assessors submitted a numerical score value and the other indicated a score could not be assigned because the student was not instructed to display a particular dimension of the competency under study. When this happened, the third assessor's score was either averaged with the other numerical score or the final score assigned was "Not Applicable" if the third assessor also indicated that the assignment could not be scored for that dimension.

B. Findings from Pilot

Scores were analyzed for each competency to arrive at an overall mean score, for possible rating on a scale from 0 to 4, on each dimension as were two independent mean scores for comparison of students in career and technical degree programs and transfer degree programs.

1. Student Learning in Written Communication in Fall 2012

Of the 50 work products assessed for Written Communication, 15 required review by a third assessor. Students' greatest strength in Written Communication was on the Context of and Purpose for Writing

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[2] When a third assessor is needed for any one dimension, the third assessor's scores are including in the computations for average scores on all dimensions.

dimension. Students need most assistance in the Sources and Evidence area. The Sources and Evidence dimension received the most NA scores indicating that this learning outcome was required least consistently by assignments included in the study (see Table 1).

Table1 illustrates student performance on the Written Communication learning outcome.

Table 1

Written Communication Average Score as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Fall 2012

Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Context of and Purpose for Writing	2.20 (.90) *N*=50	2.30 (1.08) *N*=23	2.13 (.72) *N*=27
Content Development	1.87 (.85) *N*=50	1.91 (.93) *N*=23	1.82 (.80) *N*=27
Genre & Disciplinary Conventions	1.95 (.64) *N*=49	1.89 (.89) *N*=22	1.98 (.67) *N*=27
Sources and Evidence	1.73 (1.00) *N*=28	1.63 (.86) *N*=12	1.81 (1.15) *N*=16
Control of Syntax and Mechanics	1.86 (.68) *N*=50	1.94 (.92) *N*=23	1.78 (.75) *N*=27

2. Student Learning in Information Literacy Fall 2012

Of the 44 student work products assessed for Information Literacy, 33 were reviewed by a third assessor. A third assessor was frequently called to review instances where one assessor assigned a score of "NA" and the other assigned a numerical score.

Students demonstrated the greatest need of development in the Evaluation of Information and its Sources dimension for the Information Literacy competency (see Table 2). This is comparable with the results for the Written Communication competency, where the data show a weakness in the Sources and Evidence dimension.

With an overall mean value of 2.55 for determining the Nature and Extent of Information Needed dimension, it was apparent that this is an area of strength in terms of student learning.

Table 2 illustrates student performance on the Information Literacy learning outcome.

Table 2

Information Literacy as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Fall 2012

Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Nature and Extent of Information Needed	2.48 (.83) *N*=33	2.39 (1.08) *N*=14	2.55 (.64) *N*=19
Access of Needed Information	1.98 (.71) *N*=25	1.94 (.58) *N*=9	2.00 (.82) *N*=16
Evaluation of Information and its Sources	1.67 (.77) *N*=27	1.60 (.78) *N*=10	1.71 (.81) *N*=17
Use Information Effectively	2.09 (.86) *N*=32	1.96 (1.19) *N*=11	2.17 (.68) *N*=21
Use Information Ethically and Legally	1.78 (.83) *N*=27	1.67 (.90) *N*=9	1.83 (.84) *N*=18

3. Student Learning in Critical Thinking Spring 2013

Fifty-eight (58) work products were collected for the assessment of student learning in Critical Thinking. Of the 58, 41 required the review of a third assessor because the scoring between the initial two reviewers differed significantly according to scoring specifications.

Student work products scored higher overall and by degree type on the Explanation of Issues and Evidence dimensions (see Table 3). Students need most assistance in the dimensions of Influence of Context and Assumptions and Student's Position/Perspective. Given that only 19 of the 58 work products collected could be used to assess student learning on

the Solving Problems dimension, it appears that assignments did not require the demonstration of student learning in this area.

Table 3 illustrates student performance on the Critical Thinking learning outcome.

Table 3

Critical Thinking as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Spring 2013

	Curriculum type		
Dimension	Overall	Career/technical	Transfer
Explanation of Issues	1.98 (.72) *N*=56	1.91 (.57) *N*=20	2.02 (.79) *N*=36
Evidence	1.67 (.63) *N*=52	1.87 (.69) *N*=17	1.57 (.58) *N*=35
Influence of Context and Assumptions	1.27 (.74) *N*=50	1.44 (.87) *N*=18	1.18 (.66) *N*=32
Student's Position/ Perspective	1.41 (.79) *N*=53	1.77 (.97) *N*=19	1.21 (.60) *N*=34
Conclusions and Related Outcomes	1.56 (.71) *N*=56	1.74 (.76) *N*=20	1.46 (.67) *N*=36
Solving Problems	1.43 (.75) *N*=19	1.71 (.76) *N*=7	1.26 (.73) *N*=12

4. Student Learning in Quantitative Reasoning Spring 2013

Of the 49 student work products for Quantitative Reasoning, 40 required the review of a third assessor. Of the 49 work products collected for Quantitative Reasoning, only 21 could be assessed on the Communication dimension and only 11 were deemed as assessable for the Assumptions dimension.

When student learning was assessed on the Communication dimension, students performed well. Students' greatest strengths in terms of Quantitative Reasoning included Calculation and Communication dimensions. Application/Analysis and Assumptions dimensions were the areas in need of greatest development for

students according to data. Of the work products assessed, the Interpretation, Assumptions, and Communication dimension showed high levels of variance between students in Career/Technical and Transfer programs, with students in the Career/Technical programs displaying higher levels of the competency dimensions than students in Transfer programs (see Table 4).

Table 4 illustrates student performance on the Quantitative Reasoning learning outcome.

Table 4

Quantitative Reasoning as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Spring 2013

Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Interpretation	1.77 (.94) N=30	2.00 (1.00) N=13	1.59 (.87) N=17
Representation	2.02 (.87) N=42	2.06 (.93) N=18	1.99 (.84) N=24
Calculation	2.33 (.74) N=44	2.38 (.88) N=17	2.30 (.65) N=27
Application/Analysis	1.82 (.99) N=38	1.82 (.92) N=17	1.81 (1.07) N=21
Assumptions	1.59 (1.11) N=11	1.71 (1.29) N=7	1.38 (.85) N=4
Communication	2.13 (.91) N=21	2.26 (1.01) N=13	1.94 (.73) N=8

5. Student Learning in Scientific Reasoning Spring 2013

Of the 50 student work products assessed for Scientific Reasoning, 33 required evaluation by a third assessor. Many could not be evaluated because the assignment did not require the student to develop and/or present the dimensions under study.

Students demonstrated greatest need of development on the Conclusions, Limitations, and Implications and Existing Knowledge, Research and/or Views Dimensions. With an overall mean value of 1.81 for Methodology and 1.78 for Argument or Topic Selection, these dimensions show higher levels of student learning than the others (see Table 5). However, all dimensions are in need of improvement.

Table 5 illustrates student performance in the Scientific Reasoning learning outcome.

Table 5

Scientific Reasoning as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Spring 2013

Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Argument or Topic Selection	1.78 (.81) N=29	2.00 (.80) N=8	1.69 (.81) N=21
Existing Knowledge, Research and/or Views	1.41 (.77) N=29	1.28 (.94) N=9	1.48 (.70) N=20
Methodology	1.81 (1.05) N=24	1.75 (1.13) N=6	1.83 (1.06) N=18
Analysis	1.62 (.81) N=29	1.57 (.79) N=7	1.64 (.83) N=22
Conclusions, Limitations and Implications	1.33 (.78) N=29	1.17 (.83) N=9	1.41 (.77) N=20

6. Student Learning in Oral Communication Fall 2013

Thirty-three (33) student work products were collected for the assessment of Oral Communication learning outcomes. Of the 33, 13 required the review of a third assessor because the scoring between the initial two reviewers differed significantly according to the scoring specifications.

Assessors scored all 33 work products submitted for Oral Communication on all dimensions. The assignments submitted either

required the demonstration of each dimension, or the students spontaneously demonstrated learning outcomes in each dimension.

Students achieved the highest scores on the Central Message dimension, with an average score of 2.21. TCC students need more development in the dimensions of Delivery and Supporting Material with average scores of 1.81 and 1.75 respectively (see Table 6). The Supporting Material and Language dimensions showed higher levels of variance between students in the Career/Technical and Transfer programs, with students in the Transfer programs displaying higher levels of the competency than the students in the Career/Technical programs.

Table 6 illustrates student performance in the Oral Communication learning outcome.

Table 6

Oral Communication Average Score as Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Fall 2013

Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Organization	2.06 (.75) N=33	1.98 (.70) N=7	2.08 (.78) N=26
Language	2.12 (.56) N=33	1.83 (.36) N=7	2.20 (.59) N=26
Delivery	1.81 (.70) N=33	1.76 (.58) N=7	1.82 (.74) N=26
Central Message	2.21 (.69) N=33	2.31 (.47) N=7	2.18 (.75) N=26
Supporting Material and Implications	1.75 (.93) N=33	1.29 (.83) N=7	1.87 (.93) N=26

7. Student Learning in Cultural and Social Understanding Fall 2013

Fifty-five (55) student work products were collected for the assessment of student learning in Cultural and Social Understanding. Of the 55, 52 required the review of a third assessor because the scoring between the initial two reviewers differed significantly according to the scoring specifications.

Of the 55 work products submitted for Cultural and Social Understanding, only 9 were scored for the Skills - Recognize the role of language in social and cultural contexts dimension, and only 12 were scored for the Skills – Recognize the impact that arts and humanities have upon individuals and cultures dimension. The remaining assignments did not instruct students to demonstrate the learning outcomes in these dimensions, and students did not spontaneously demonstrate these learning outcomes. Therefore, assessors marked these dimensions NA rather than assigning numerical scores. Further, there were no dimensions for this competency for which all work products submitted could be scored. The dimension with the most work products which could be scored was the Knowledge – Assess the impact that institutions have on individuals and culture, for which 38 of the 55 work products required the demonstration of the dimension.

Students achieved the highest scores on the Knowledge – Describes their own as well as others' personal ethical systems and values dimension, with an average score of 1.80. TCC students need more development in the dimensions of Skills – Recognize the impact that the arts and humanities have upon individuals and cultures and Skills – Recognize the role of language in social and cultural contexts with average scores of 1.18 and 1.28 respectively (see Table 7).

The Skills – Recognize the role of language in social and cultural contexts dimension showed a higher level of variance between students in Career/Technical and Transfer programs, with students in the Transfer programs displaying higher levels of the competency than the students in the Career/Technical programs.

Table 7 illustrates student performance in the Cultural and Social Understanding learning outcome.

Table 7

Cultural and Social Understanding Average Score as Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Fall 2013

Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Knowledge (Assess the impact that institutions have on individuals and culture)	1.43 (.57) N=38	1.38 (.50) N=19	1.49 (.64) N=19
Knowledge (Describe their own as well as others' personal ethical systems and values within social institutions)	1.80 (.54) N=31	1.89 (.34) N=14	1.72 (.67) N=17
Skills (Recognize the impact that the arts and humanities have upon individuals and cultures)	1.18 (.59) N=12	1.29 (.58) N=4	1.13 (.62) N=8
Skills (Recognize the role of language in social and cultural contexts)	1.28 (.37) N=9	1.21 (.28) N=7	1.50 (.71) N=2
Skills (Recognize interdependence of world-wide social, economic, geo-political, and cultural systems)	1.41 (.38) N=27	1.38 (.33) N=14	1.45 (.43) N=13

8. Student Learning in Personal Development Spring 2014

Forty-nine (49) student work products were collected for the assessment of student learning in Personal Development. Of the 49, 42 required the review of a third assessor because the scoring between the initial two reviewers differed significantly according to the scoring specifications.

Of the 49 work products collected for Personal Development, 45 were scored for the Decision-Making dimension and 43 were scored for the Personal Wellness dimension. Only 29 work products were scored for the Social and Interpersonal Development dimension. The remaining assignments did not instruct students to demonstrate the learning outcomes in these dimensions, and students did not spontaneously demonstrate these learning outcomes.

Students achieved the highest scores on the Decision-Making and Academic and Professional Goal-Setting dimensions with average scores of 1.86 in each of these dimensions (see Table 8). These two dimensions showed higher levels of variance between Career/Technical and Transfer students than the other dimensions, with Career/Technical students performing better on the Decision-Making dimension and Transfer students performing better on the Academic and Professional Goal Setting dimension. TCC students need more development in the dimensions of Social and Interpersonal Development and Personal Identity with scores of 1.55 and 1.60 respectively.

Table 8 illustrates student performance in the Personal Development learning outcome.

Table 8

Personal Development Average Score as Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses)

Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Personal Wellness	1.76 (.64)	1.79 (.66)	1.74 (.64)
	N=43	N=18	N=25
Decision-Making	1.86 (.62)	1.96 (.75)	1.79 (.52)
	N=45	N=17	N=28
Academic and Professional Goal-Setting	1.86 (.77)	1.75 (.80)	1.93 (.76)
	N=41	N=17	N=24
Social and Interpersonal Development	1.55 (.87)	1.60 (.61)	1.50 (1.05)
	N=29	N=13	N=16
Personal Identity	1.60 (.64)	1.67 (.46)	1.56 (.73)
	N=38	N=14	N=24

9. General Summary of Student Learning Findings from Pilot

Pilot findings offer a glimpse of student learning and provide benchmark "scores" for TCC students (See Appendix E). Most importantly, the findings serve as a springboard for discussions with faculty and subsequent curriculum and pedagogical changes.

10. Administrative Findings from Pilot

College officials responsible for collecting and preparing student work products and notifying faculty of their responsibilities learned early on that these processes were arduous and could be accomplished more easily through automation. With support from the college's Office of Information Systems, an electronic application, the GEA Tool, was developed that allows for student work products to be

scanned and randomly directed to two assessors for scoring. When a third assessor is needed, the work product is assigned to a third assessor for review. The GEA Tool, which automates much of the process and also allows assessors to score student work products at any time and from any computer, was launched in fall 2013.

Educating faculty about the initiative evolved into what the assessment coaches have referred to as a "marketing blitz." Even after several opportunities to learn about the initiative, through various modes, some faculty seemed unaware and/or unclear of the initiative and its intent. Faculty who have been actively engaged in the process understand the reasoning behind the initiative and know how critical the initiative is to the college. One significant lesson learned is that faculty on the leading edge of this initiative need to be ambassadors to their colleagues and have greater visibility at the governance level.

Another lesson the college learned is that piloting the process was the right thing to do. Having a larger sample size would have only compounded the arduous nature of this initiative. Once each general education competency has been pilot tested and improvements made based on its first assessment round, the college shall increase the sample size to 125 students with the goal of collecting and accessing 100 student work products per competency each cycle.

Finally, through the pilot, the college learned that assignments required and submitted by faculty often did not adequately develop and/or direct students to demonstrate the competency dimensions under assessment. Without an ability to assess student learning in one or more dimensions, it is difficult to set benchmarks or goals or to adequately affect change.

III.   Assessment Plan

The GEA plan has been developed, in part, from lessons learned during the pilot stage. The evolution of this plan is contingent upon the data that are gathered, analyzed, and used to enhance and improve teaching and learning.

Beginning in fall 2015, as directed by Policy 2105 – Academic Standards for Course Outlines, Syllabi, and General Education Assessment, the GEA was separated into two components: Student Learning and Assignment Design. Both follow the same rotation of competencies, but the sampling and methodologies are different as described below. The Student Learning component continues to assess student learning outcomes as demonstrated in embedded coursework while the Assignment Design component assesses whether assignments require students to demonstrate the designated competency (See Appendix F). Student learning is not assessed in the Assignment Design component.

A. Rotation

Each competency was assessed twice by spring 2016 (See Table 9).

Table 9

General Education Competency: Assessment Rotation – Phase One

Competency	12-13	13-14	14-15	15-16
Written Communication	FALL		FALL	
Oral Communication		FALL[3]		FALL[4]
Critical Thinking	SPRING	SPRING		
Cultural/Social Understanding		FALL		FALL
Information Literacy	FALL		FALL	
Quantitative Reasoning	SPRING		SPRING	
Scientific Reasoning	SPRING		SPRING	
Personal Development		SPRING		SPRING

Beginning spring 2016, one competency was assessed during each cycle. A

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[3] Student work products for fall 2013 assessment were collected in summer 2013.
[4] Twenty-one (21) of the 125 students in the sample were identified from summer 2015 sections of the selected course(s).

full rotation through all competencies will be completed in a four-year period (See Table 10). The slower rotation will allow more time for analysis and discussion of data to inform and implement change to support student learning. Both Student Learning and Assignment Design follow the same rotation schedule.

Table 10

General Education Competency: Assessment Rotation – Phase Two

Competency	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
Written Communication		FALL				FALL		
Oral Communication			FALL				FALL	
Critical Thinking	FALL				FALL			
Cultural/Social Understanding				FALL				FALL
Information Literacy			SPRING				SPRING	
Quantitative Reasoning		SPRING				SPRING		
Scientific Reasoning	SPRING				SPRING			
Personal Development				SPRING				SPRING

B. Sampling

1. Student Learning

Courses selected for the assessment (See Appendix D) include those that identified the targeted competency as one that is developed in the course, have a significant number of enrollees with sophomore status, have student enrollees from both degree types (career/technical and transfer) who are representative of TCC's degree-seeking population, and that are offered in a variety of course formats (traditional, hybrid, online). A course is not used more than once during an academic year for general education assessment. Students selected for inclusion are those who have earned 45 or more academic credit hours, versus 30 or more credit hours, to assess students who are closer to graduation. If a representative sample cannot be obtained with students who have earned 45 or more credit

hours, the college reverts to the sampling of students with 30 or more credit hours. As in the past, OIE identifies students for participation through a stratified random sample process. For each general education competency, 125 students are randomly selected for inclusion with the goal of collecting and accessing 100 student work products per competency each cycle. Sample size was adjusted to 141 for spring 2016 in an effort to collect and assess 100 student work products per competency based on the average percentage of accessible assignments from previous cycles. For the fall 2015 cycle, the course selection pool for Student Learning sample included courses identified on page 35 of the 2015-16 College Catalog as meeting the general education core requirements for degrees or certificates.

2. **Assignment Design**

Beginning fall 2015, a separate sample for the Assignment Design component of the GEA was identified by OIE through a stratified random sample process from courses not included on page 35 of the 2015-16 College Catalog as meeting the general education core requirements for degrees or certificates. These selected courses (See Appendix D) included non-general education courses that identified the targeted competency as one that is developed in the course, have student enrollees from both degree types (career/technical and transfer) who are representative of TCC's degree-seeking population, and that are offered in a variety of course formats (traditional, hybrid, online). A course is not used more than once during an academic year for Assignment Design assessment. Ten courses per competency are included in the assessment.

C. **Methods**

Prior to each semester, Academic Services notifies faculty of the competencies assessed and faculty responsibilities for the upcoming cycle. Once the tuition deadline date passes for classes to adjust for student attrition, OIE provides the samples for Student Learning and Assignment Design to Academic Services.

1. **Student Learning**

Academic Services uploads the Student Learning sample into the GEA Tool and faculty are notified. As student work products are

collected, Academic Services removes all student, course, and faculty identifiers before uploading them to the GEA Tool. Assessors access student work products and enter scores electronically at a group scoring session and/or remotely at their convenience. Scores by dimension include 4 (exemplary), 3, (proficient), 2 (developing), 1 (emerging), 0 (not demonstrated), and NA (not demonstrated and not required by assignment). A third assessor is assigned automatically as required following the same logic used in the pilot. The same logic will also be followed in assigning final scores for each competency dimension.

2. **Assignment Design**

   Academic Services notifies faculty. As assignments are collected, Academic Services removes all course and faculty identifiers before uploading them to a test instance of the GEA Tool[5]. Assessors access assignments and enter scores electronically at a group scoring session and/or remotely at their convenience. Scores by dimension include "Supports Dimension" for assignments which require students to demonstrate the dimension and "Does Not Support Dimension" for assignments which do not require students to demonstrate the dimension. A third assessor is assigned automatically when the first two assessor's scores are different for any dimension of the rubric. Final scores are the scores agreed upon by two assessors.

D. **Student Learning Findings**

   Data were analyzed for each competency to arrive at an overall mean score, for possible rating on a scale from 0 to 4 on each dimension as were two independent mean scores for comparison of students in career and technical degree programs and transfer degree programs.

   1. **Student Learning in Critical Thinking Spring 2014**

      One hundred (100) student work products were collected for the assessment of student learning in Critical Thinking for the spring 2014 cycle. Of the 100, 77 required the review of a third assessor because the scoring between the initial two reviewers differed significantly

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   [5] Academic Services will request modifications to the GEA Tool to accommodate the Assignment Design requirements.

according to the scoring specifications.

Of the 100 work products collected for Critical Thinking, 94 were scored for the Explanation of Issues, Student's Position – Perspective, Thesis/Hypothesis, and Conclusions and Related Outcomes dimensions. Ninety (90) were scored for the Influence of Context dimension. While the Solving Problems dimension continued to receive the most NA scores, the percentage of scored work products for this dimension increased from 33% in the spring 2013 cycle to 66% in the spring 2014 cycle.

Students achieved the highest scores on the Explanation of Issues and Evidence dimensions with average scores of 1.81 and 1.64 respectively (see Table 10). Career/Technical and Transfer students demonstrated equal scores on these dimensions. Influence of Context and Assumptions and Student's Position – Perspective, Thesis/Hypothesis were the dimensions with the lowest scores, 1.39 and 1.38 respectively. The most variation between scores for Career/Technical and Transfer students was on the Solving Problems dimension with Career/Technical scoring higher than Transfer students.

Average scores by dimension for the spring 2014 assessment of Critical Thinking are similar to the scores for the spring 2013 cycle (see Figure 1). Student scores were the highest on the Explanation of Issues dimension for both cycles and lowest on the Influence of Context and Assumptions and Student's Position dimensions.

Table 10 illustrates student performance in the Critical Thinking learning outcome.

Table 10

Critical Thinking Average Score as Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Spring 2014

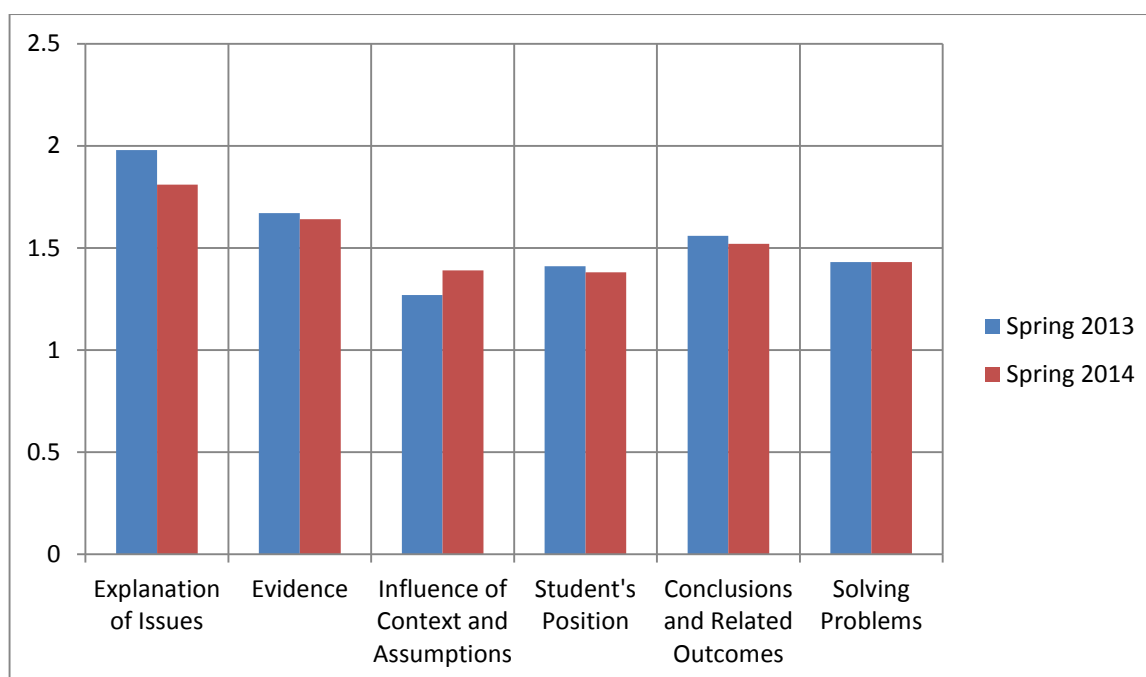| Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Explanation of Issues	1.81 (.73)	1.81 (.78)	1.81 (.69)
	N=94	N=42	N=52
Evidence	1.64 (.68)	1.64 (.81)	1.64 (.56)
	N=87	N=38	N=49
Influence of Context and Assumptions	1.39 (.64)	1.42 (.73)	1.36 (.56)
	N=90	N=39	N=51
Student's Position - Perspective, Thesis/ Hypothesis	1.38 (.66)	1.45 (.75)	1.33 (.57)
	N=94	N=42	N=52
Conclusions and Related Outcomes	1.52 (.63)	1.58 (.78)	1.46 (.48)
	N=94	N=42	N=52
Solving Problems	1.43 (.76)	1.56 (.81)	1.34 (.71)
	N=66	N=29	N=37

Figure 1. Comparison of Critical Thinking Overall Score as a Function of Dimension and Cycle.

2. Student Learning in Written Communication in Fall 2014

Ninety five (95) student work products were collected for the assessment of student learning in Written Communication for the fall 2014 cycle. Of the 95, 52 required review by a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications.

All 95 student work products collected for Written Communication were scored for the Context and Purpose for Writing, Genre and Disciplinary Conventions, and Control of Syntax and Mechanics dimensions. Only one student work product received an NA score for the Content Development dimension. While the Sources and Evidence dimension continued to receive the most NA scores, the percentage of scored work products for this dimension increased from 56% in the fall 2012 cycle to 75% in the fall 2014 cycle.

Students' greatest strength in Written Communication was on the Context of and Purpose for Writing dimension with an average score of 2.33. Students' weakest dimensions were Genre and Disciplinary Conventions and Sources and Evidence with average scores of 1.98 and 1.94 respectively (see Table 11).

Career/Technical students achieved higher scores than Transfer students on all dimensions. The most variation between scores for Career/Technical and Transfer students was on the Context and Purpose for Writing dimension with Career/Technical students scoring .49 higher than Transfer students.

Average scores by dimension for the fall 2014 assessment of Written Communication were similar to but higher than the scores for the fall 2012 cycle (see Figure 2). Average scores were the highest on the Context and Purpose of Writing dimension for both cycles and lowest on the Influence of Sources and Evidence dimension.

Table 11 illustrates student performance on the Written Communication learning outcome.

Table 11

Written Communication Average Score as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Fall 2014

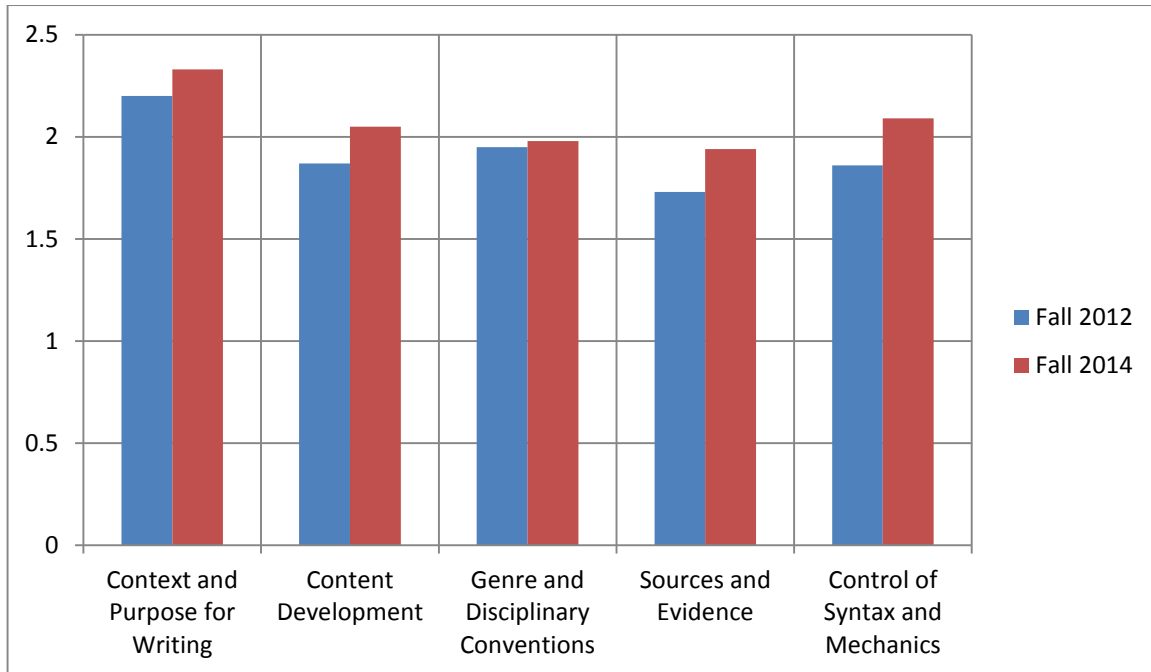| Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Context of and Purpose for Writing	2.33 (.82) N=95	2.61 (.65) N=42	2.12 (.88) N=53
Content Development	2.05 (.83) N=94	2.26 (.73) N=42	1.87 (.87) N=52
Genre & Disciplinary Conventions	1.98 (.84) N=95	2.17 (.76) N=42	1.83 (.88) N=53
Sources and Evidence	1.94 (.89) N=72	2.10 (.82) N=31	1.81 (.92) N=41
Control of Syntax and Mechanics	2.09 (.76) N=95	2.25 (.64) N=42	1.96 (.82) N=53

Figure 2. Comparison of Written Communication Overall Score as a Function of Dimension and Cycle.

3. Student Learning in Information Literacy Fall 2014

Eighty nine (89) student work products were collected for the assessment of student learning in Information Literacy for the fall 2014 cycle. Of the 89, 63 required review by a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications.

The number of NA scores ranged from 26 for both the Determine the Extent of Information Needed and the Access Needed Information dimensions to 36 for the Access and Use Information Ethically and Legally dimension. This indicates that from 29% to 40% of the student work products could not be scored on at least one dimension because the assignment did not require the student to demonstrate the dimension. These percentages are comparable to the results from the fall 2012 assessment of Information Literacy which showed that 25% to 43% of the student work products could not be scored on at least one dimension.

Students achieved the highest scores on the Use Information Effectively and Access Needed Information dimensions with average

scores of 2.01 and 1.88 respectively. Students demonstrated the greatest need of development in the Access and Use Information Ethically and Legally dimension with an average score of 1.21 (see Table 12). Transfer students scored higher than Career/Technical students on all dimensions with the greatest variation on the Access Needed Information dimension with Transfer students scoring .49 higher than Career/Technical students.

Average scores for the fall 2014 assessment of Information Literacy are lower on every dimension than average scores for the fall 2012 cycle (see Figure 3). Average scores were highest on the Determine Extent of Information Needed dimension for both cycles, but the fall 2014 average score was .47 lower than the fall 2012 average score. The greatest variation between average scores for the fall 2014 and 2012 cycles was on the Access and Use Information Ethically and Legally dimension with a difference of .57 between the average scores.

Table 12 illustrates student performance on the Information Literacy learning outcome.

Table 12

Information Literacy as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Fall 2014

| Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Determine Extent of Information Needed	2.01 (.80) N=63	1.83 (.82) N=25	2.12 (.78) N=38
Access Needed Information	1.88 (.77) N=63	1.58 (.77) N=22	2.05 (.73) N=41
Evaluation of Information and Sources	1.52 (.69) N=55	1.43 (.73) N=21	1.57 (.67) N=34
Use Information Effectively	1.59 (.79) N=58	1.42 (.83) N=21	1.68 (.75) N=37
Access and Use Information Ethically and Legally	1.21 (.72) N=53	1.05 (.68) N=19	1.30 (.73) N=34
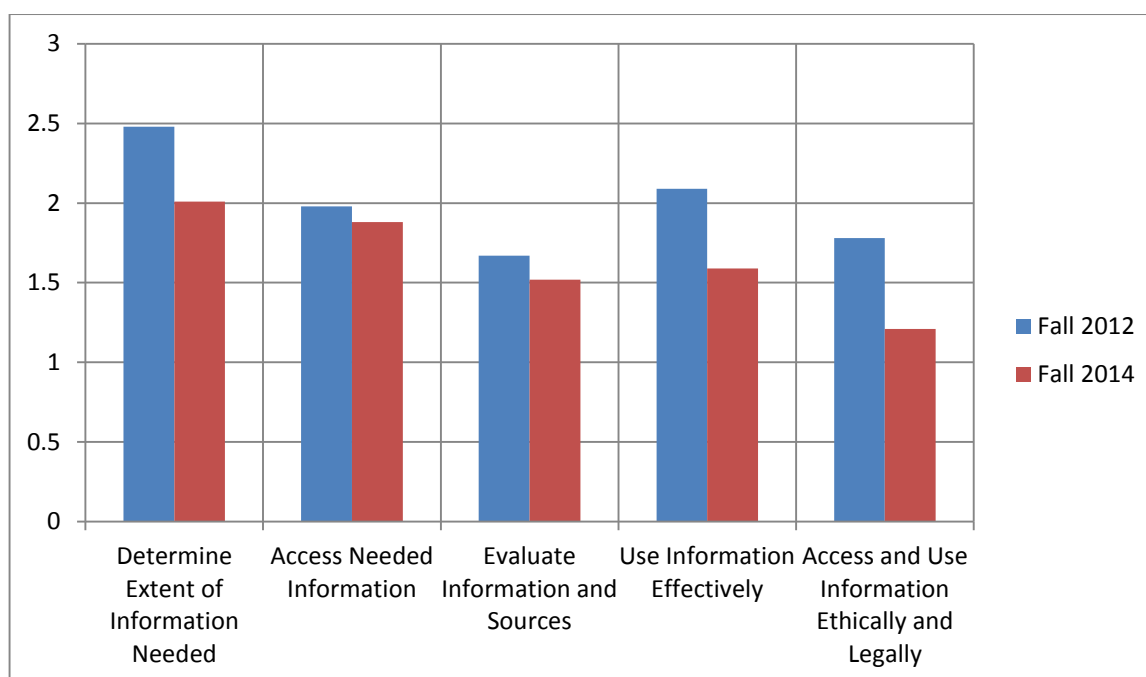
Figure 3. Comparison of Information Literacy Overall Score as a Function of Dimension and Cycle.

4. Student Learning in Quantitative Reasoning Spring 2015

Sixty-nine (69) work products for Quantitative Reasoning were submitted from the 125 students in the sample. Of the 69 work products assessed, 57 required the review of a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications.

The Representation, Interpretation, and Calculation dimensions received the least NA scores. Of the 69 work products submitted, 61 were assessed for the Representation dimension and 59 were assessed for both the Interpretation and Calculation dimensions. The Assumptions dimension received the most NA scores for Quantitative Reasoning during this cycle with 29 NA scores; however, the percentage of student work products assessed for this dimension increased from 22% in the spring 2013 cycle to 58% in the spring 2015 cycle.

Students achieved the highest scores on the Calculation and Communication dimensions with average scores of 2.39 and 2.40 respectively (see Table 13). Application/Analysis and Assumptions

dimensions were the areas in need of greatest development with average scores of 1.98 and 1.69 respectively. The Communication dimension showed the highest level of variance between students in Career/Technical and Transfer programs, with students in the Career/Technical programs displaying higher levels of the competency dimensions than students in Transfer programs (see Table 13).

Average scores were higher in spring 2015 than spring 2013 in every dimension (see Figure 4). Student scores were the highest on the Calculation and Communications dimensions for both cycles and lowest on the Application/Analysis and Assumptions dimensions. The greatest increases in average scores were achieved in the Interpretation and Communication dimensions with average increases of .34 and .27 points respectively.

Table 13 illustrates student performance on the Quantitative Reasoning learning outcome.

Table 13

Quantitative Reasoning as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Spring 2015

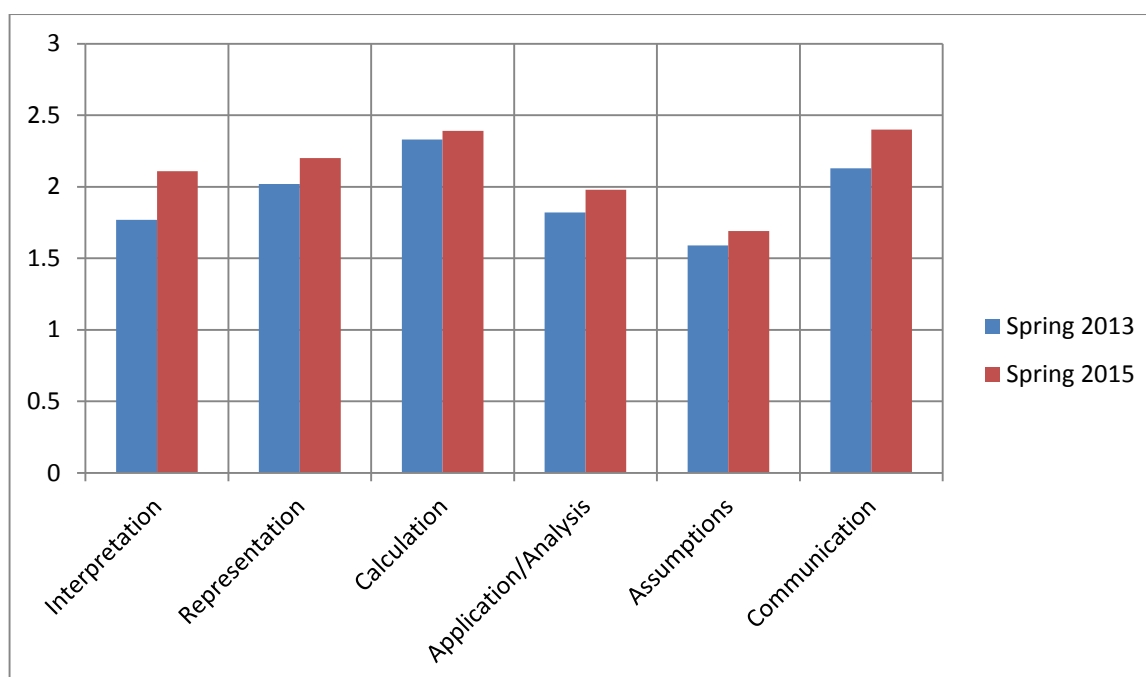| Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Interpretation	2.11 (.67) *N*=59	2.15 (.66) *N*=34	2.06 (.69) *N*=25
Representation	2.20 (.60) *N*=61	2.23 (.57) *N*=35	2.17 (.65) *N*=26
Calculation	2.39 (.63) *N*=59	2.40 (.63) *N*=34	2.38 (.63) *N*=25
Application/Analysis	1.98 (.62) *N*=49	2.04 (.60) *N*=32	1.88 (.66) *N*=17
Assumptions	1.69 (.62) *N*=40	1.68 (.63) *N*=26	1.72 (.63) *N*=14
Communication	2.40 (.64) *N*=47	2.52 (.56) *N*=30	2.18 (.72) *N*=17

Figure 4. Comparison of Quantitative Reasoning Overall Score as a Function of Dimension. and Cycle.

5. Student Learning in Scientific Reasoning Spring 2015

Ninety-eight (98) student work products were submitted for the assessment of Scientific Reasoning for the spring 2015 cycle. Of the 98 student work products assessed for Scientific Reasoning, 65 required evaluation by a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications.

Eighty-six (86) work products were scored for the Analysis dimension, and 85 were scored for the Methodology and Conclusions, Limitations and Implications dimensions. The Existing Knowledge, Research and/or Views dimension received the most NA scores with 33 work products that did not require the demonstration of the dimension. These findings represent an increase in the percentage of scored work products for all dimensions as compared to the spring 13 cycle. Spring 15 work products scored ranged from 66% to 88% across all dimensions while spring 13 work products scored ranged from 48% to 59% across all dimensions.

Students demonstrated greatest strength on the Methodology dimension with an average score of 2.49. Students' lowest average score was 1.78 on the Existing Knowledge, Research and/or Views Dimensions (see Table 14). Career Technical students received higher average scores than transfer students in all dimensions except the Methodology dimension. The spring 15 average scores increased for all dimensions as compared to spring 13 (see Figure 5).

Table 14 illustrates student performance in the Scientific Reasoning learning outcome.

Table 14

Scientific Reasoning as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) Spring 2015

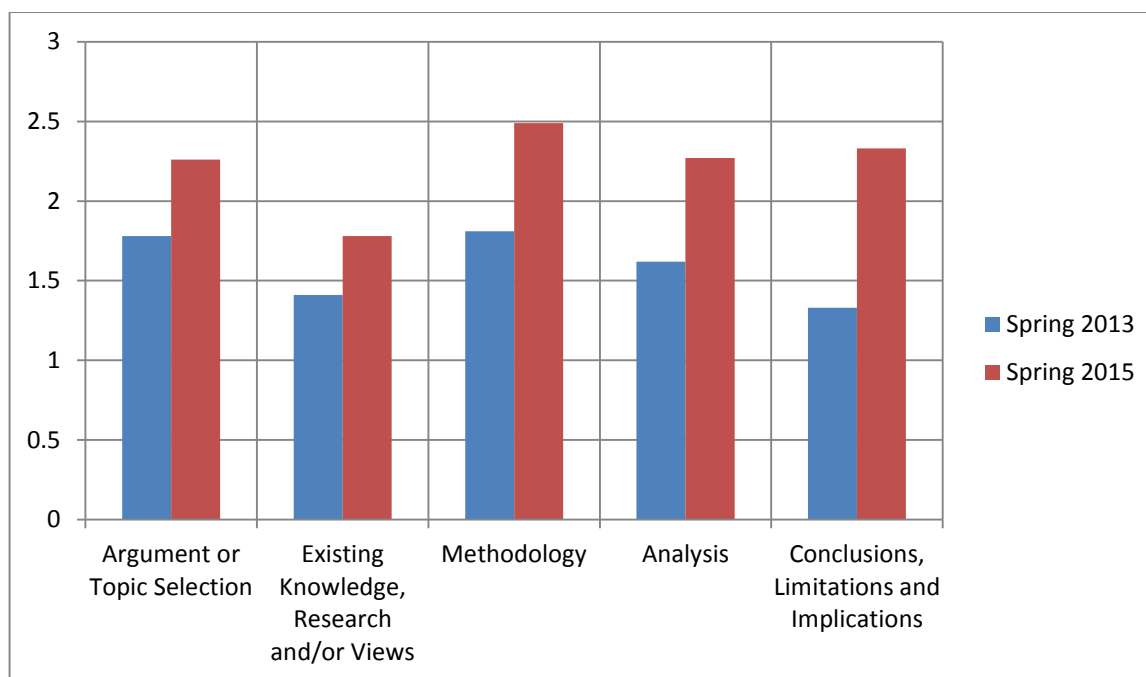| Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Argument or Topic Selection	2.26 (.75) *N*=72	2.42 (.71) *N*=32	2.13 (.76) *N*=40
Existing Knowledge, Research and/or Views	1.78 (.77) *N*=65	1.90 (.70) *N*=34	1.66 (.84) *N*=31
Methodology	2.49 (.68) *N*=85	2.47 (.67) *N*=42	2.51 (.70) *N*=43
Analysis	2.27 (.62) *N*=86	2.36 (.61) *N*=43	2.19 (.63) *N*=43
Conclusions, Limitations and Implications	2.33(.66) *N*=85	2.45 (.60) *N*=40	2.22 (.70) *N*=45

Figure 5. Comparison of Scientific Reasoning Overall Score as a Function of Dimension and Cycle.

6. Student **Learning in Oral Communication F**all 201**5**

Seventy-eight (78) student work products were submitted for the assessment of Oral Communication for the fall 2015 cycle. Of the 78 student work products assessed, 44 required evaluation by a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications.

Seventy-eight (78) work products were scored for the Language, Delivery, and Central Message dimensions, and 77 were scored for the Organization dimension. The Supporting Materials dimension received the most NA scores with 12 work products that did not require the demonstration of the dimension. These findings represent a decrease in the percentage of scored work products for the Organization and Supporting Materials dimensions as compared to the fall 13 cycle. Fall 15 work products scored ranged from 85% to 100% across all dimensions while 100% of fall 13 work products were scored across all dimensions.

Students demonstrated greatest strength on the Language and

Central Message dimensions with average scores of 2.28 and 2.25 respectively. Students' lowest average score was 1.75 on the Supporting Materials dimension (See Table 15). Career Technical students received higher average scores than transfer students in all dimensions except the Delivery dimension. The fall 15 average scores increased for all dimensions except the Supporting Materials dimension in which scores were the same as compared to fall 13 (see Figure 6).

Table 15 illustrates student performance in the Oral Communication learning outcome.

Table 15

Oral Communication as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) fall 2015

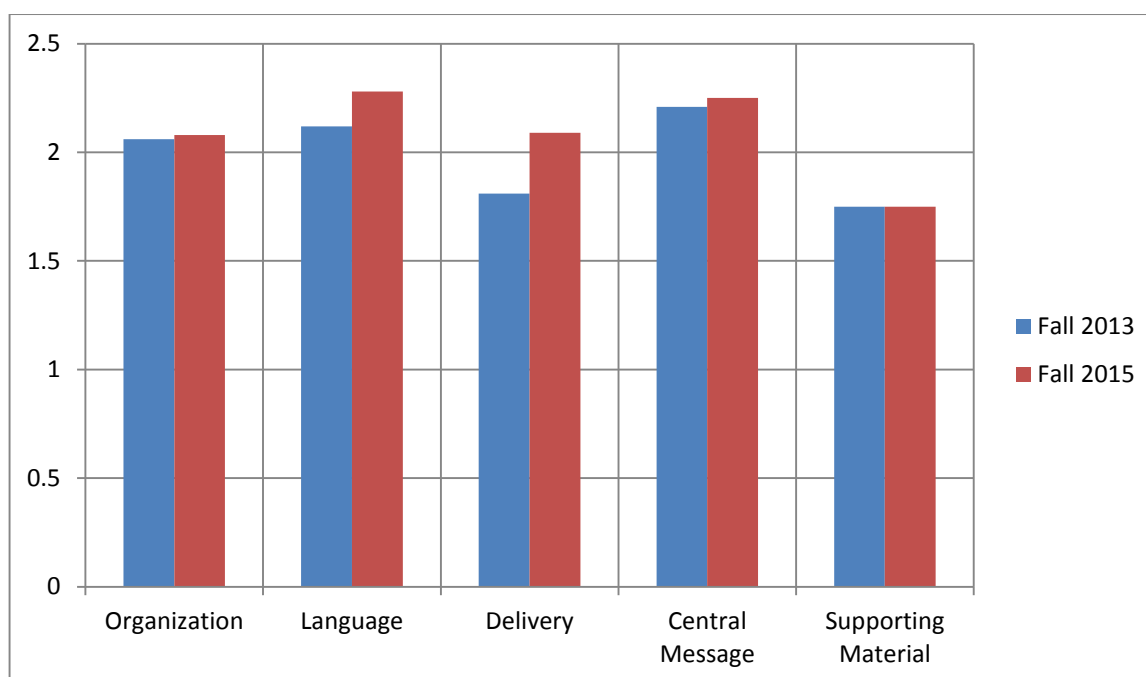| Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Organization	2.08 (.56) n=77	2.29 (.62) n=14	2.03 (.54) n=63
Language	2.28 (.48) n=78	2.41 (.44) n=15	2.24 (.49) n=63
Delivery	2.09 (.62) n=78	2.07 (.74) n=15	2.09 (.60) n=63
Central Message	2.25 (.62) n=78	2.55 (.69) n=15	2.18 (.59) n=63
Supporting Material	1.75 (.63) n=66	1.90 (.66) n=14	1.71 (.63) n=52

Figure 6. Comparison of Oral Communication Overall Score as a Function of Dimension and Cycle.

7. Student Learning in Cultural and Social Understanding Fall 2015

Ninety-eight (98) student work products were submitted for the assessment of Cultural and Social Understanding for the fall 2015 cycle. Of the 98 student work products assessed, 85 required evaluation by a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications. The number of student work products which required a third scorer rose from 39% in fall 2013 to 87% in fall 2015.

There were no dimensions for which all work products were scored. Eighty-two (82) work products were scored for the Knowledge – Access Impact that institutions have on individuals and culture dimension. The Skills – Recognize the impact that arts and humanities have upon individuals and cultures and Skills – Recognize the role of language in social and cultural contexts dimensions received the most NA scores with 60 and 59 work products that did not require the demonstration of the dimension respectively. These findings represent an overall increase in the percentage of scored work products for all dimensions as compared to findings from fall 13. Fall 15 work products scored

ranged from 39% to 84% across all dimensions while the range of work products score in fall 13 was 16% to 69% across all dimensions.

Students demonstrated greatest strength on the Knowledge - Describe their own as well as others' personal ethical systems and values within social institutions and Knowledge - Assess the impact that institutions have on individuals and culture dimensions with average scores of 1.84 and 1.71 respectively. Students' lowest average scores were 1.56 and 1.57 on the Skills Recognize the impact that the arts and humanities have upon individuals and cultures and Skills - Recognize the interdependence of world-wide social, economic, geo-political, and cultural systems dimensions (See Table 16). The fall 15 average scores increased for all dimensions as compared to fall 13 (See Figure 7).

Table 16 illustrates student performance in the Cultural and Social Understanding learning outcome.

Table 16

Cultural and Social Understanding as a Function of Dimension and Curriculum Type (with Standard Deviations in Parentheses) fall 2015

| Dimension	Curriculum type		
	Overall	Career/technical	Transfer
Knowledge (Assess the impact that institutions have on individuals and culture)	1.71 (.58) n=82	1.77 (.55) n=36	1.66 (.61) n=46
Knowledge (Describe their own as well as others' personal ethical systems and values within social institutions)	1.84 (.58) n=64	1.80 (.62) n=30	1.87 (.54) n=34
Skills (Recognize the impact that the arts and humanities have upon individuals and cultures)	1.56 (.61) n=38	1.60 (.67) n=21	1.52 (.54) n=17
Skills (Recognize the role of language in social and cultural contexts)	1.60 (.65) n=39	1.52 (.58) n=16	1.66 (.70) n=23
Skills (Recognize the interdependence of world-wide social, economic, geo-political, and cultural systems)	1.57 (.61) n=64	1.57 (.58) n=29	1.58 (.64) n=35
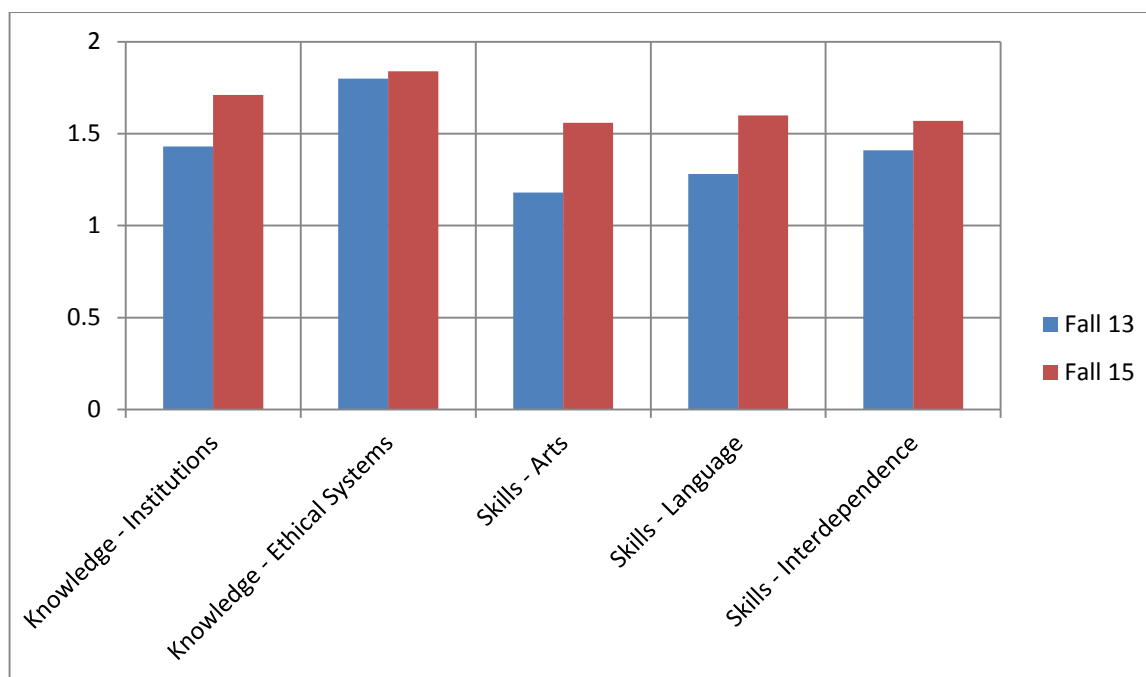
Figure 7. Comparison of Cultural and Social Understanding Overall Score as a Function of Dimension and Cycle.

8. Student Learning Comprehensive Results

Comparison of findings for competencies which have been assessed twice shows improvement in overall scores for all dimensions of Written Communication, Quantitative Reasoning, Scientific Reasoning, and Cultural and Social Understanding the second time the competency was assessed (See Table 17). There was also improvement in overall scores for Oral Communication in all dimension except one for which the same score was achieved in both assessments. Conversely, overall scores for all dimensions of Information Literacy were lower the second time it was assessed. Overall Critical Thinking scores were lower in all dimensions the second time the competency was assessed with the exception of the Influence of Context and Assumptions dimensions which increased by .12 and the Solving Problems dimension which remained the same in both cycles.

Table 17 illustrates student performance in the general education competencies.

Table 17

Overall Scores as a Function of Competency Dimension and Cycle

Competency (cycles assessed)	Dimension	Overall average score first assessment	Overall average score second assessment
Written Communication (Fall 2012 and Fall 2014)	Context & Purpose	2.20	2.33
	Content Development	1.87	2.05
	Genre & Conventions	1.95	1.98
	Sources & Evidence	1.73	1.94
	Syntax & Mechanics	1.86	2.09
Information Literacy (Fall 2012 and Fall 2014)	Nature & Extent of Info	2.48	2.01
	Access of Needed Info	1.98	1.88
	Eval of Info & Sources	1.67	1.52
	Use Info Effectively	2.09	1.59
	Use Info Ethically/Legally	1.78	1.21
Critical Thinking (Spring 2013 and Spring 2014)	Explanation of Issues	1.98	1.81
	Evidence	1.67	1.64
	Influence of Context…	1.27	1.39
	Position/Perspective	1.41	1.38
	Conclusions & Outcomes	1.56	1.52
	Solving Problems	1.43	1.43
Quantitative Reasoning (Spring 2013 and Spring 2015)	Interpretation	1.77	2.11
	Representation	2.02	2.20
	Calculation	2.33	2.39
	Application/Analysis	1.82	1.98
	Assumptions	1.59	1.69
	Communication	2.13	2.40
Scientific Reasoning (Spring 2013 and Spring 2015)	Topic Selection	1.78	2.26
	Existing Knowledge…	1.41	1.78
	Methodology	1.81	2.49
	Analysis	1.62	2.27
	Conclusions/Limitations…	1.33	2.33
Oral Communication (Fall 2013 and Fall 2015)	Organization	2.06	2.08
	Language	2.12	2.28
	Delivery	1.81	2.09
	Central Message	2.21	2.25
	Supporting Material	1.75	1.75
Cultural/Social Understanding (Fall 2013 and Fall 2015)	Impact of Institutions…	1.43	1.71
	Ethical Systems…	1.80	1.84
	Impact of Arts…	1.18	1.56
	Role of Language…	1.28	1.60
	Interdependence…	1.41	1.57

Personal Development	Personal Wellness	1.76	
	Decision-making	1.86	
(Spring 2014)	Academic/Prof Goals	1.86	
	Social Development	1.55	
	Personal Identity	1.60	

Of the competencies assessed twice, a comparison of average overall dimension scores for each competency and cycle indicates that Scientific Reasoning was the competency most improved from the first cycle to the second with an average overall score of 1.59 in Spring 13 and 2.33 in Spring 15 (See Figure 7). Information Literacy was the competency with average overall dimensions scores which decreased the most from the first cycle to the second with average overall scores of 2 in Fall 12 and 1.64 in Fall 14.
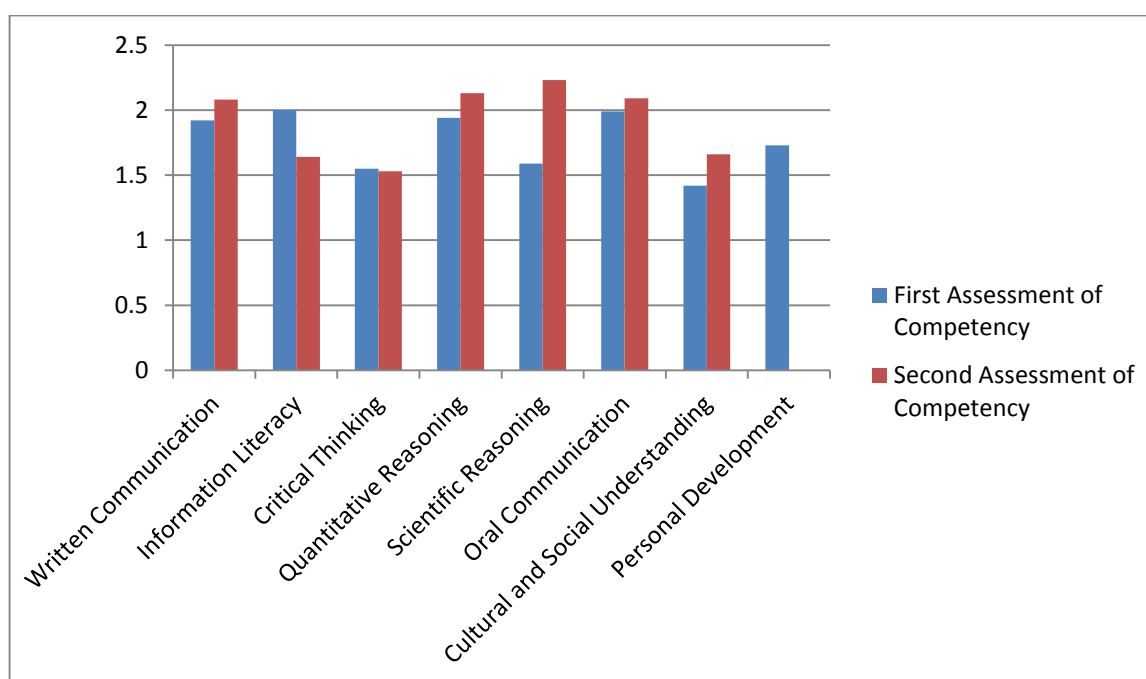
Figure 7. Comparison of Average Overall Dimension Scores as a Function of Competency and Cycle.

A comparison of average overall dimensions scores for each competency across all cycles indicates that students' greatest strengths are in Quantitative Reasoning and Oral Communication followed by Written Communication (See Figure 8). Critical Thinking and Social and Cultural Understanding are the competencies in need of most improvement.
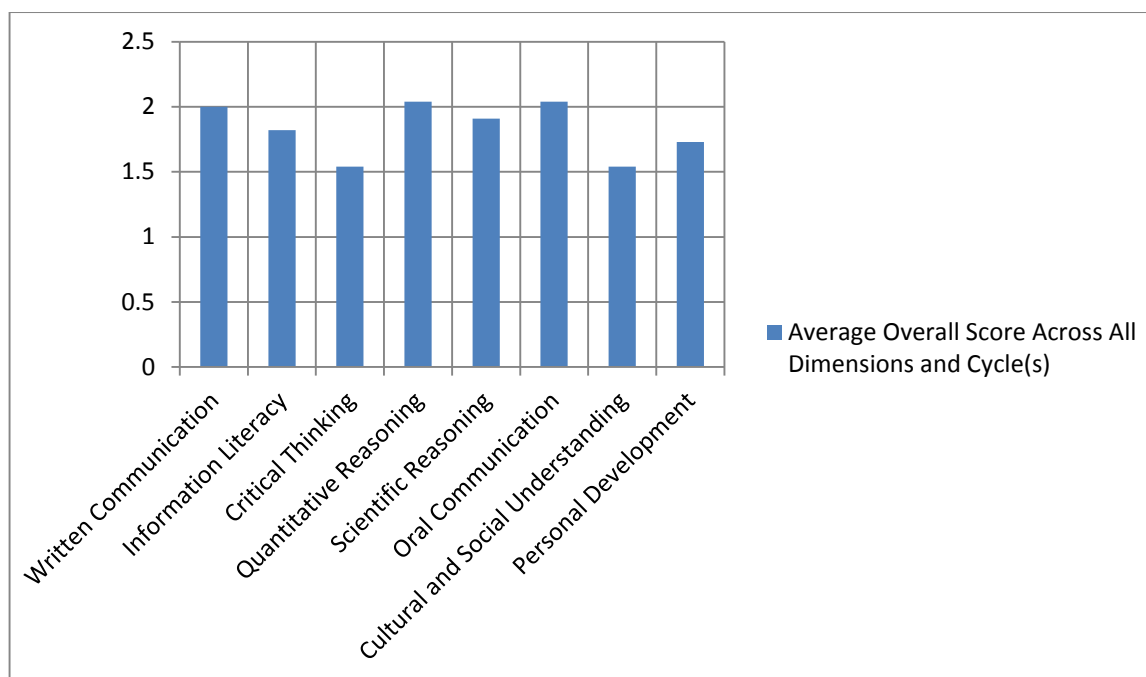
Figure 8. Average Overall Score Across All Dimensions and Cycles.

E. Assignment Design Findings

1. **Assignment Design for Oral Communication Fall 2015**

   Eight assignments were submitted for the assessment of Assignment Design for Oral Communication for the fall 2015 cycle. Of the eight assignments assessed, six required evaluation by a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications.

   All assignments assessed supported the Organization dimension. Eighty-seven percent (87%) of the assignments supported the Language, Delivery and Central Message dimensions (See Figure 9). Seventy-five percent (75%) supported the Supporting Material Dimension.
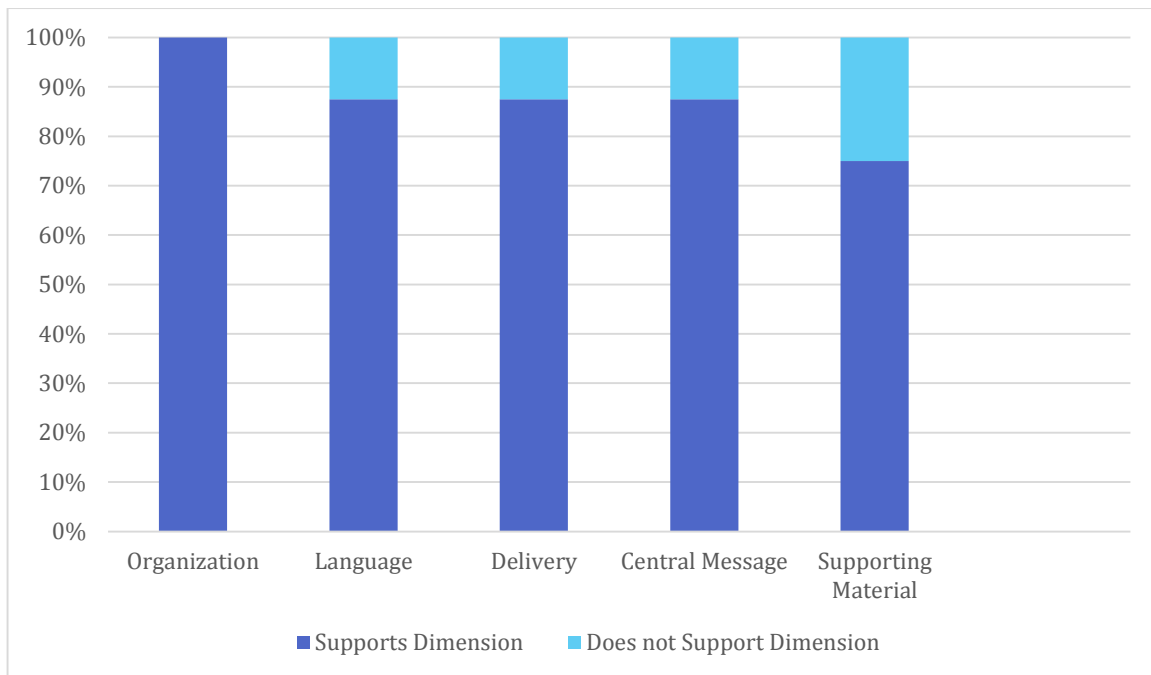
Figure 9. Fall 2015 Assignment Design Support of Oral Communication Learning Outcome Dimensions.

2. **Assignment Design for Cultural and Social Understanding Fall 2015**

   Eight assignments were submitted for the assessment of Assignment Design for Cultural and Social Understanding for the fall 2015 cycle. Of the eight assignments assessed, seven required evaluation by a third assessor because the scoring between the initial two assessors differed significantly according to scoring specifications.

   The Knowledge – Assess the impact that institutions have on individuals and culture, Knowledge – Describes their own as well as others' personal ethical systems and values, and Skills – Recognize the role of language in social and cultural contexts dimensions were the most supported dimensions with 75% of the assignments requiring the demonstration of these dimensions (See Figure 10). Skills – Recognize the interdependence of world-wide social, economic, geo-political and cultural systems was the least supported dimension with only 50% of the assignments requiring demonstration of this dimension.

Cultural and Social Understanding Fall 2015
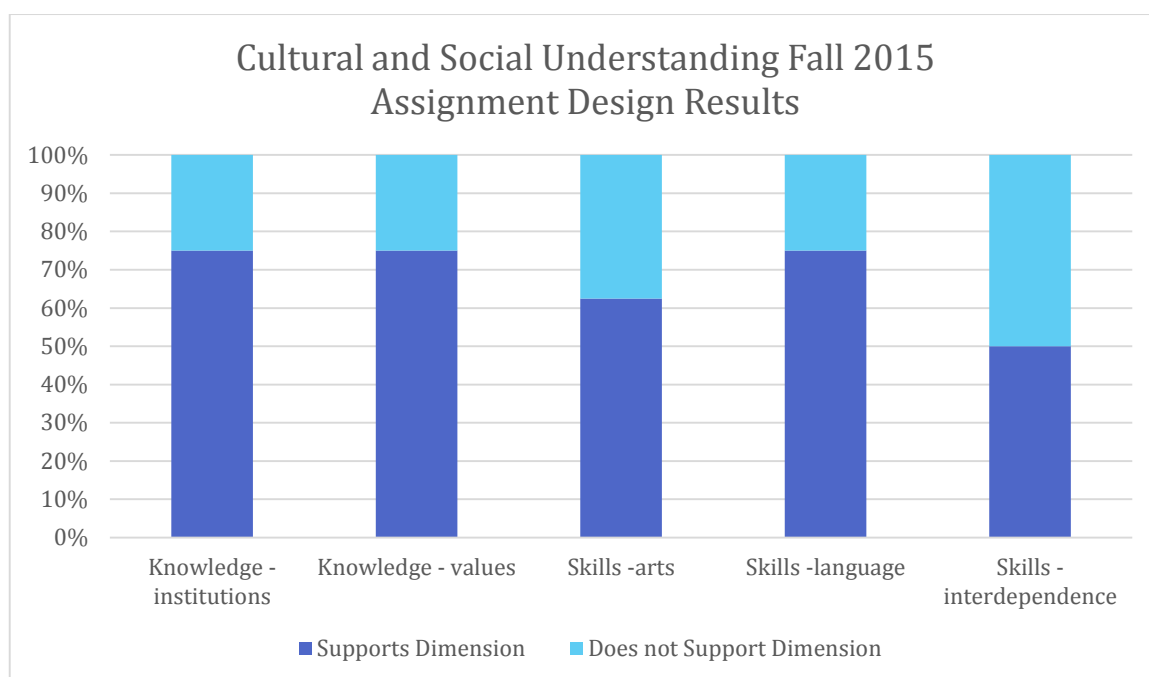Assignment Design Results

Figure 10. Fall 2015 Assignment Design Support of Cultural and Social Understanding Learning Outcome Dimensions.

IV.   Changes Resulting from Assessment Findings

Assessment findings are reviewed as a cyclical step of the process and serve as the basis for curriculum and pedagogical changes to support student learning.

Initiative	Status
Policy/Procedure	
Draft and implement Academics Standards Policy 2105 to formalize the role and responsibilities of faculty and academic leaders in general education assessment.	Implemented spring 2015
Form the General Education Committee in accordance with the General Education Course Approval Guidelines to consider new courses for inclusion as general education and approved transfer elective courses and perform periodic reviews of these courses to determine continued eligibility.	Implemented spring 2016
Curriculum	
Annually review/identify the general education competencies supported by each course at the Learning Institute and update Official Course Outline in i-INCURR (See Appendix G) in accordance with the Timeline for Changes to Official Course Outlines (See Appendix H).	Implemented fall 2013

Complete/maintain course mapping process to identify programs which do not support all competencies through course requirements.	In progress
Address gaps in programs which do not support all competencies through course requirements.	In progress
Establish and enforce standard college-wide course requisites as outlined in Policy and Procedure for Credit Course Requisites, Policy No. 2103.	Implemented
Pedagogy	
Design/edit assignments to support the applicable competencies: • Instruction Committee created/maintains the General Education Assessment Resource System (GEARS) which provides best practices on effective assignment design and sample assignments beginning fall 2015. • Require Authentic Assignment Tool form to be completed and submitted by faculty participating in GEA process beginning in fall 2015[6] (See Appendix I). • Assignment Design workshops offered since fall 2013. • Encourage development/implementation of standard assignments which comprehensively support applicable competencies within courses. Several disciplines within health professions, natural science, and student development have identified and developed standard assignments aligned with the appropriate VALUE rubric for submission to the GEA. • Provide individual assistance with identifying and/or developing assignments which wholly support general education learning outcomes for particular as assignment instructions/templates are submitted by faculty for assessment. Provide comprehensive GEA information as needed.	Implemented
TCC Libraries developed and conduct standard library instruction sessions for ENG 111, ENG 112, and CST 100 which include the learning outcomes on the Information Literacy rubric as part of the Assessment Action Plan.	Implemented

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[6] AAT was revised for spring 2016 based on faculty and Instruction Committee feedback.

Library Instruction Committee created and maintains an Effective Teaching Repository including effective pedagogy/andragogy and literacy instruction practices.	Implemented
Provide course and instructor-specific results to applicable faculty to inform pedagogical improvements.	Implemented fall 2015
Bring in national experts to conduct faculty development workshops: Terry Rhodes - 2012 Ashely Finley - 2013 Linda Suskie - 2014 Kathryne McConnell - 2015	Ongoing
Co-curricular Support	
The Women's Center realigned its annual calendar of educational programs to address the Cultural and Social Understanding competency and provide supportive intercultural academic programs.	Implemented
The Office for Intercultural Learning (OIL) implemented an annual calendar of academic programs to develop the Cultural and Social Understanding competency including: • six college-wide intercultural keynote events, • supportive academic programs (speakers, documentaries, discussions, and workshops), • Association of American Colleges and Universities Bringing Theory to Practice intra-professional program for faculty and students in allied heath, nursing, and health professions, • Bilateral Student exchange program with Tradium College in Randers, Denmark: business students enrolled in TCC credit courses to complete and original project; supportive co- and extra-curricular programs with TCC students and faculty, and • Study Abroad program which aligns the proposal process for faculty to present curricular-driven opportunities to address the Cultural and Social Understanding competency with a significant need to incorporate on-ground travel experience. •	Implemented
International Student Services engages international students in curricular and co-curricular programs to support the Cultural and Social Understanding Competency.	Implemented

Faculty Awareness/Participation	
Email faculty with GEA update identifying competencies under assessment and faculty expectations before the start of each cycle. Beginning summer 2014, all faculty rather than only those potentially participating in the cycle received this notification to improve general awareness GEA goals, status, and faculty requirements.	Implemented
Members of the Instruction Committee serve as liaisons between faculty in their disciplines and the GEA.	Implemented
Conduct competency-specific assessor training every cycle.	Ongoing
Produce What to Expect from Assessor Training, an informational video, previewing the objectives and content of assessor training sessions. Posted on the GEARS website.	Implemented spring 2016
Devote at least one day of the annual Learning Institute to GEA programming.	Implemented spring 2012
Present GEA-related topics and updates during Convocation.	Implemented spring 2012
Create and maintain "Assessments" tab in i-INCURR to provide electronic access to GEA-related information including links to the competency rubrics, the GEA Tool for scoring student work products, and this document.	Implemented
Develop and conduct a GEA orientation during the New Faculty Academy. An assignment design component was added spring 2016.	Implemented fall 2014
Produce and screen informational video highlighting the purpose and basic processes of the GEA at 2014 Convocation. Video is available for future faculty-centered events.	Implemented
Recognize participation in the GEA process including but not limited to assessor training and scoring as satisfying components faculty evaluation plan.	Implemented
GEA Plan	
Instruction Committee will review, edit, and recommend changes to the GEA Plan annually based on faculty input and assessment results.	Ongoing

Contract consultant with assessment and accreditation expertise for review of and feedback on GEA Plan (See Appendix J).	Completed spring 2014
Provide more detailed analysis of results including reliability (See Appendix K), margin of error, comparison of assessment results with GPA, pass/fail status, student type, delivery of instruction, and demographic data.	Initiated fall 2015
Create and implement a new process for non-general education courses to focus on Assignment Design in accordance with Policy 2105.	Implemented fall 2015
Slow the rotation of competencies assessed to one competency per cycle to allow more time for structured phases to review findings, identify and implement changes needed, and to evaluate impact of changes as routine steps of the process.	Implemented spring 2016
Review/revise rubrics for better alignment with VCCS general education goals including standardizing language across all publications.	Pending
Determine the need for/identification of benchmarks.	Pending

V. Faculty Training and Education

A. Faculty Assessor Training

At the annual *Learning Institute* in 2012 and 2013, AAC&U representatives provided training to faculty volunteers who were interested in assessing student learning using the TCC adapted AAC&U Value Rubrics. Thirty-five faculty were trained in each session, with 54 total faculty trained during the 2012-13 academic year. As of fall 2015, a total of 117 faculty have been trained, with an additional 66 faculty who attended a large group training session held during the 2015 *Learning Institute*. These 66 will be invited to smaller training opportunities during the 2015-16 year prior to serving as faculty assessors to allow for more interactive participation in norming discussions.

Faculty are encouraged to attend faculty assessor training sessions which are offered during each cycle of the assessment. The competencies assessed in the training sessions are the same competencies which will be

assessed during the assessment cycle. Special invitations to attend faculty assessor training have been extended to those with expertise related to the competencies under assessment in the upcoming cycle. For example, librarians were invited to faculty assessor training in fall 2014 prior to the assessment of Information Literacy. Faculty in science-related disciplines were encouraged to attend training in spring 2015 prior to the assessment of Scientific Reasoning.

VII. Appendices

Appendix A: General Education Core Competencies

GENERAL EDUCATION CORE COMPETENCIES

TCC/VCCS

Tidewater Community College (TCC) has defined the general education core competencies that all its graduates from associate degree programs should have attained as the following:

1. <u>Communication</u> – A competent communicator can interact with others using all forms of communication, resulting in understanding and being understood. TCC graduates will demonstrate the ability to understand and interpret complex materials; assimilate, organize, develop, and present an idea formally and informally; use standard English; use appropriate verbal and non-verbal responses in interpersonal relations and group discussions; use listening skills; and recognize the role of culture in communication.

2. <u>Critical Thinking</u> – A competent critical thinker evaluates evidence carefully and applies reasoning to decide what to believe and how to act. TCC graduates will demonstrate the ability to discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from given data; recognize parallels, assumptions, or presuppositions in any given source of information; evaluate the strengths and relevance of arguments on a particular question or issue; weigh evidence and decide if generalizations or conclusions based on the given data are warranted; determine whether certain conclusions or consequences are supported by the information provided; and use problem solving skills.

3. Cultural and Social Understanding – A culturally and socially competent person possesses an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities. TCC graduates will demonstrate the ability to assess the impact that social institutions have on individuals and culture—past, present, and future; describe their own as well as others' personal ethical systems and values within social institutions; recognize the impact that arts and humanities have upon individuals and cultures; recognize the role of language in social and cultural contexts; and recognize the interdependence of distinctive world-wide social, economic, geo-political, and cultural systems.

4. <u>Information Literacy</u> – A person who is competent in information literacy recognizes when information is needed and has the ability to locate, evaluate, and use it effectively. TCC graduates will demonstrate the ability to determine the nature and extent of information needed; access needed information

effectively and efficiently; evaluate information and its sources critically and incorporate selected information into his or her knowledge base; use information effectively, individually or as a member of a group, to accomplish a specific purpose; and understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.

5. <u>Personal Development</u> – An individual engaged in personal development strives for physical well-being and emotional maturity. TCC graduates will demonstrate the ability to develop and/or refine personal wellness goals; and develop and/or enhance the knowledge, skills and understanding to make informed academic, social personal, career, and interpersonal decisions.

6. <u>Quantitative Reasoning</u> – A person who is competent in quantitative reasoning possesses the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues. A person who is quantitatively literate can use numerical, geometric, and measurement data and concepts, mathematical skills, and principles of mathematical reasoning to draw logical conclusions and to make well-reasoned decisions. TCC graduates will demonstrate the ability to use logical and mathematical reasoning with the context of various disciplines; interpret and use mathematical formulas; interpret mathematical models such as graphs, tables and schematics and draw inferences from them; use graphical, symbolic, and numerical methods to analyze, organize, and interpret data; estimate and consider answers to mathematical problems in order to determine reasonableness; and represent mathematical information numerically, symbolically, and visually using graphs and charts.

7. <u>Scientific Reasoning</u> – A person who is competent in scientific reasoning adheres to a self-correcting system of inquiry (the scientific method) and relies on empirical evidence to describe, understand, predict, and control natural phenomena. TCC graduates will demonstrate the ability to generate an empirically evidenced and logical argument; distinguish a scientific argument from a non-scientific argument; reason by deduction, induction and analogy; distinguish between causal and correlational relationships; and recognize methods of inquiry that lead to scientific knowledge.

Appendix B: General Education Degree Requirements

Table 5-1A
VCCS Degree Requirements

Area	Distribution
GENERAL EDUCATION General education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbounded by disciplines and honors the connections among bodies of knowledge. The associate degree programs within the VCCS support a collegiate experience that focuses on seven goal areas: *communication; critical thinking; cultural and social understanding; information literacy; personal development; quantitative reasoning; scientific reasoning.*) The general education goal areas outlined below are to be introduced in the foundational courses and enhanced in program and elective courses. (NOTE: Some of the categories include two goal areas when a single course may provide foundations in both goal areas.)	**Minimum 15 credits** (Students must take at least one course in each of the five areas listed, to total at least 15 credits.)

I. Foundations In Communication: Courses designed to enable students to interact with others using all forms of communication, resulting in understanding and being understood.	II. Foundations In Critical Thinking And Information Literacy: Courses designed to enable students to evaluate evidence carefully and apply reasoning to decide what to believe and how to act, and to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.
III. Foundations In Cultural And Social Understanding: Courses designed to enable students to have an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities.	IV. Foundations In Personal Development: Courses designed to enable students to strive for physical well-being and emotional maturity.

V. Foundations In Quantitative And Scientific Reasoning:
Courses designed to enable students to possess the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues, and to adhere to a self-correcting system of inquiry (the scientific method) and rely on empirical evidence to describe, understand, predict, and control natural phenomena.

Area	Distribution

PROGRAM REQUIREMENTS
    Major Field Core
    Related/Specialization Courses
    Electives
	Minimum 15 credits*
	Maximum 15 credits
	0-15 credits

TOTALS	**AA/AS/AA&S:** **60-63 credits**[**] **AAA/AAS:** **65-69 credits**[***]

*Language in Section 5.1.0.0.1 of the VCCS Policy Manual states 25% of the courses in the degree program (15-18 credits) must be common across majors within a degree. The shared courses must be major or related/specialization courses.
[**]Credit range for engineering programs is 60-72 semester hour credits.
[***]Credit range for AAA/AAS programs is 65-69, including nursing. For other programs in the Health Technologies, the range is 65-72 semester hour credits.

Table 5-1B
Minimum Requirements for
Associate Degrees in the VCCS

	Minimum Number of Semester Hour Credits			
General Education:	(1) AA	(2) AS	(3) AA&S	(4) AAA / AAS
Communication[a]	6	6	6	3
Humanities / Fine Arts	6	6	6	3
Foreign Language (Intermediate Level)	6	0	0	0
Social / Behavioral Sciences	9	9[b]	9	3[c]
Natural Sciences /	7	7	7	0
Mathematics	6	6[d]	6[d]	0	} 3[c]
Personal Development [e]	2	2	2	2
Other Requirements for Associate Degrees:				
Major field courses and electives (columns 1-3) Career/technical courses (column 4)	18-21	24-27	24-27	49-53[f]
	———	———	———	———
Total for Degree[g] =	60-63	60-63[h]	60-63[h]	65-69[h]

Notes: The VCCS Policy Manual, Section 2-IV-C, defines general education within the VCCS. Sections 2.7.3, 3.4.10, and 3.5.1 of the Southern Association of Colleges and Schools (SACS) Principles of Accreditation specify general education requirements. Colleges must address all SACS requirements, the SCHEV Core Competencies, and the general education goal areas listed in this VCCS Policy Manual.

[a] Must include at least one course in English composition.
[b] Only 6 semester hours of social/behavioral sciences are required for engineering majors who plan to transfer to a baccalaureate degree engineering program that requires 6 or fewer hours in this category, provided that the college/university publishes such requirements in its transfer guide.
[c] While general education courses other than those designed for transfer may be used to meet portions of these requirements, SACS principles require that general education courses be general in nature and must not "...narrowly focus on those skills, techniques, and procedures peculiar to a particular occupation or profession."
[d] Only 3 semester hours of mathematics are required for the General Studies major.
[e] Personal development includes health, physical education, or recreation courses that promote physical and emotional well being and student development courses. Must include at least one student development course.
[f] AAA/AAS degrees must contain a minimum of 15 semester hours of general education. Students should plan to take at least 30 hours in the major; the remaining hours will be appropriate to the major.
[g] All college-level course prerequisites must be included in the total credits required for each program.

[h] Credit range for engineering programs is 60-72 semester hour credits. Credit range for AAA/AAS programs is 65-69, including nursing. For other programs in the Health Technologies, the range is 65-72 semester hour credits.

Appendix C: VALUE Rubrics

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WRITTEN COMMUNICATION RUBRIC

DEFINITION

Written communication is the development and expression of ideas in writing resulting in understanding and being understood. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum. A competent written communicator demonstrates the ability to: understand and interpret complex materials; assimilate, organize, develop, and present an idea formally and informally; use standard English; and recognizes the role of culture in communication.

FRAMING LANGUAGE

This rubric focuses assessment on how specific written work samples or collections of work respond to specific contexts. The central question guiding the rubric is "How well does writing respond to the needs of audience(s) for the work?" In focusing on this question the rubric does not attend to other aspects of writing that are equally important: issues of writing process, writing strategies, writers' fluency with different modes of textual production or publication, or writer's growing engagement with writing and disciplinarity through the process of writing.

Evaluators using this rubric must have information about the assignments or purposes for writing guiding writers' work. Also recommended is including reflective work samples of collections of work that address such questions as: What decisions did the writer make about audience, purpose, and genre as s/he compiled the work in the portfolio? How are those choices evident in the writing -- in the content, organization and structure, reasoning, evidence, mechanical and surface conventions, and citational systems used in the writing? This will enable evaluators to have a clear sense of how writers understand the assignments and take it into consideration as they evaluate.

The first section of this rubric addresses the context and purpose for writing. A work sample or collections of work can convey the context and purpose for the writing tasks it showcases by including the writing assignments associated with work samples. But writers may also convey the context and purpose for their writing within the texts. It is important for faculty and institutions to include directions for students about how they should represent their writing contexts and purposes.

WRITTEN COMMUNICATION RUBRIC

GLOSSARY

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Content Development:** The ways in which the text explores and represents its topic in relation to its audience and purpose.

- **Context of and purpose for writing:** The context of writing is the situation surrounding a text: who is reading it? who is writing it? Under what circumstances will the text be shared or circulated? What social or political factors might affect how the text is composed or interpreted? The purpose for writing is the writer's intended effect on an audience. Writers might want to persuade or inform; they might want to report or summarize information; they might want to work through complexity or confusion; they might want to argue with other writers, or connect with other writers; they might want to convey urgency or amuse; they might write for themselves or for an assignment or to remember.

- **Disciplinary conventions:** Formal and informal rules that constitute what is seen generally as appropriate within different academic fields, e.g. introductory strategies, use of passive voice or first person point of view, expectations for thesis or hypothesis, expectations for kinds of evidence and support that are appropriate to the task at hand, use of primary and secondary sources to provide evidence and support arguments and to document critical perspectives on the topic. Writers will incorporate sources according to disciplinary and genre conventions, according to the writer's purpose for the text. Through increasingly sophisticated use of sources, writers develop an ability to differentiate between their own ideas and the ideas of others, credit and build upon work already accomplished in the field or issue they are addressing, and provide meaningful examples to readers.

- **Evidence:** Source material that is used to extend, in purposeful ways, writers' ideas in a text.

- **Genre conventions:** Formal and informal rules for particular kinds of texts and/or media that guide formatting, organization, and stylistic choices, e.g. lab reports, academic papers, poetry, webpages, or personal essays.

- **Sources:** Texts (written, oral, behavioral, visual, or other) that writers draw on as they work for a variety of purposes -- to extend, argue with, develop, define, or shape their ideas, for example.

WRITTEN COMMUNICATION RUBRIC

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Context of and Purpose for Writing *Includes consideration of audience, purpose, and the circumstances surrounding the writing task(s).*	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned task(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned task(s) (e.g., expectation of instructor or self as audience).
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions *Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).*	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s) including organization, content, presentation, formatting, and stylistic choices.	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices.	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation.	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of Syntax and Mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors information.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

INFORMATION LITERACY RUBRIC

DEFINITION

The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand (Adopted from the National Forum on Information Literacy). A person who is competent in information literacy demonstrates the ability to: determine the nature and extent of the information needed; access needed information effectively and efficiently; evaluate information and its sources critically and incorporate selected information into his or her knowledge base; and understand many of the economic, legal, and social issues surrounding the use of information and use information ethically and legally.

FRAMING LANGUAGE

This rubric is recommended for use evaluating a collection of work, rather than a single work sample in order to fully gauge students' information skills. Ideally, a collection of work would contain a wide variety of different types of work and might include: research papers, editorials, speeches, grant proposals, marketing or business plans, PowerPoint presentations, posters, literature reviews, position papers, and argument critiques to name a few. In addition, a description of the assignments with the instructions that initiated the student work would be vital in providing the complete context for the work. Although a student's final work must stand on its own, evidence of a student's research and information gathering processes, such as a research journal/diary, could provide further demonstration of a student's information proficiency and for some criteria on this rubric would be required.

INFORMATION LITERACY RUBRIC

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Determine the nature and extent of information needed.	Effectively defines the scope of the research question or thesis. Effectively determines key concepts. All types of information (sources) selected directly relate to concepts or answer research question.	Defines the scope of the research question, thesis or problem completely. Can determine key concepts. Most types of information (sources) selected relate to concepts or answer research question.	Defines the scope of the question, thesis or problem incompletely (parts are missing, remains too broad or too narrow, etc.). Can determine key concepts. Types of information (sources) selected partially relate to concepts or answer research question.	Has difficulty defining the scope of the question, thesis or problem. Has difficulty determining key concepts. Types of information (sources) selected do not relate to concepts or answer research question.
Access the needed information effectively and efficiently.	Accesses information using effective, well-designed search strategies and most appropriate information sources.	Accesses information using variety of search strategies and refined information sources. Demonstrates ability to refine search.	Accesses information using simple search strategies, retrieves relevant information from limited and similar sources.	Accesses information randomly, retrieves information that lacks relevance and quality.
Evaluate information and its sources critically and incorporate selected information into his or her knowledge base.	Systematically and methodically analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Has difficulty distinguishing between an assertion and an assumption. Begins to identify some contexts when presenting a position.
Use information effectively, individually or as a member of a group to accomplish a specific purpose.	Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth.	Communicates, organizes and synthesizes information from sources. Intended purpose is achieved.	Communicates and organizes information from sources/accurately quoted, used in context, correctly paraphrased, etc.). The information is not completely synthesized, so the intended purpose is not fully achieved.	Communicates information from sources. The information is fragmented and/or used inappropriately (misquoted, taken out of context, incorrectly paraphrased, etc.), so the intended purpose is not achieved.
Applies many of the economic, legal and social issues surrounding the use of information and accesses and uses information ethically and legally.	Students use correctly all of the following information use strategies: - use of citations and references - choice of paraphrasing, summary, or quoting - using information in ways that are true to original context - distinguishing between common knowledge and ideas requiring attribution Demonstrates an understanding of the ethical, economic, legal and social issues on the use of published, confidential, and/or proprietary information.	Students use correctly three of the following information use strategies: - use of citations and references - choice of paraphrasing, summary, or quoting - using information in ways that are true to original context - distinguishing between common knowledge and ideas requiring attribution Demonstrates an understanding of the ethical, economic, legal and social issues on the use of published, confidential, and/or proprietary information.	Students use correctly two of the following information use strategies: - use of citations and references - choice of paraphrasing, summary, or quoting - using information in ways that are true to original context - distinguishing between common knowledge and ideas requiring attribution Demonstrates an understanding of the ethical, economic, legal and social issues on the use of published, confidential, and/or proprietary information.	Students use correctly one of the following information use strategies: - use of citations and references - choice of paraphrasing, summary, or quoting - using information in ways that are true to original context - distinguishing between common knowledge and ideas requiring attribution Demonstrates an understanding of the ethical, economic, legal and social issues on the use of published, confidential, and/or proprietary information.

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CRITICAL THINKING RUBRIC

DEFINITION

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion. A person who is competent in critical thinking evaluates evidence carefully and applies reasoning to decide what to believe and how to act. A person with competency in this area demonstrates the ability to demonstrate among degrees of credibility, accuracy, and reliability of inferences drawn from given data; recognizes parallels, assumptions, or presuppositions in any given source of information; evaluates the strengths and relevance of arguments on a particular question or issue; weighs evidence and decides if generalizations or conclusions based on the given data are warranted; determines whether certain conclusions or consequences are supported by the information provided; and uses problem solving skills.

FRAMING LANGUAGE

This rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires habits of inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.

This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in assignments that require students to complete analyses of text, data, or issues. Assignments that cut across presentation mode might be especially useful in some fields. If insight into the process components of critical thinking (e.g., how information sources were evaluated regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially illuminating.

GLOSSARY

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Ambiguity:** Information that may be interpreted in more than one way.

- **Assumptions:** Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof." (quoted from www.dictionary.reference.com/browse/assumptions)

- **Context:** The historical, ethical, political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.

- **Literal meaning:** Interpretation of information exactly as stated. For example, "she was green with envy" would be interpreted to mean that her skin was green.

- **Metaphor:** Information that is (intended to be) interpreted in a non-literal way. For example, "she was green with envy" is intended to convey an intensity of emotion, not a skin color.

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CRITICAL THINKING VALUE RUBRIC

for more information contact value@aacu.org

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence Selecting and using information to investigate a point of view or conclusion	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Differentiates between self and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/ hypothesis)	Specific position (perspective, thesis/ hypothesis) is creative, taking into account the complexities of an issue. Limits of position (perspective, thesis/ hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/ hypothesis).	Specific position (perspective, thesis/ hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/ hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/ hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and well supported; reflect student's informed evaluation, demonstrating ability to weigh evidence and place perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly; evidence is generally well supported.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly; support of evidence is limited.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified; little to no support of evidence.
Solving Problems	Not only develops a logical, consistent plan to solve a problem, but recognizes consequences of a solution and can articulate reasons for choosing a solution.	Having selected from among several approaches, develops a logical, consistent plan that considers how to solve a problem.	Considers and rejects less acceptable approaches to solving a problem.	Only a single approach is considered and is used to solve a problem.

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QUANTITATIVE REASONING RUBRIC

DEFINITION

Quantitative Reasoning (QR) is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QR skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate). A person who is competent in quantitative reasoning can use numerical, geometric, and measurement data and concepts, mathematical skills, and principles of mathematical reasoning to draw logical conclusions and to make well-reasoned decisions; the person demonstrates the ability to: use logical and mathematical reasoning within the context of various disciplines; interpret and use mathematical formulas; interpret mathematical models and draw inferences from them; use graphical, symbolic, and numerical methods to analyze, organize, and interpret data; and, estimate and consider answers to mathematical problems in order to determine reasonableness.

FRAMING LANGUAGE

This rubric has been designed for the evaluation of work that addresses quantitative reasoning in a substantive way. QR is not just computation, not just the citing of someone else's data. QR is a habit of mind, a way of thinking about the world that relies on data and on the mathematical analysis of data to make connections and draw conclusions. Teaching QR requires us to design assignments that address authentic, data-based problems. Such assignments may call for the traditional written paper, but we can imagine other alternatives: a video of a PowerPoint presentation, perhaps, or a well designed series of web pages. In any case, a successful demonstration of QR will place the mathematical work in the context of a full and robust discussion of the underlying issues addressed by the assignment.

Finally, QR skills can be applied to a wide array of problems of varying difficulty, confounding the use of this rubric. For example, the same student might demonstrate high levels of QR achievement when working on a simplistic problem and low levels of QR achievement when working on a very complex problem. Thus, to accurately assess a students QR achievement it may be necessary to measure QR achievement within the context of problem complexity, much as is done in diving competitions where two scores are given, one for the difficulty of the dive, and the other for the skill in accomplishing the dive. In this context, that would mean giving one score for the complexity of the problem and another score for the QR achievement in solving the problem.

QUANTITATIVE REASONING *VALUE* RUBRIC
(For more information, please contact value@aacu.org)

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. For example, accurately explains the trend data shown in a graph and makes reasonable predictions regarding what the data suggest about future events.	Provides accurate explanations of information presented in mathematical forms. For instance, accurately explains the trend data shown in a graph.	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. For instance, accurately explains trend data shown in a graph, but may miscalculate the slope of the trend line.	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. For example, attempts to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis*	Uses the quantitative analysis of data as the basis for deep and thoughtful and logical judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for logical judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized)*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

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SCIENTIFIC REASONING RUBRIC

DEFINITION

Scientific Reasoning is an adherence to a self-correcting system of inquiry and a reliance on empirical evidence to describe, understanding, predict, and control natural phenomena.

FRAMING LANGUAGE

This rubric has been designed for the evaluation of work that addresses scientific reasoning in a substantive way. A person who is competent in scientific reasoning will demonstrate the ability to: generate an empirically evidenced and logical argument; distinguish a scientific argument from a non-scientific argument; reason by deduction, induction, and analogy; distinguish between causal and correlational relationships; and recognize methods of inquiry that lead to scientific knowledge.

GLOSSARY

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Conclusions:** A synthesis of key findings drawn from research/evidence.

- **Limitations:** Critique of the process or evidence.

- **Implications:** How inquiry results apply to a larger context or the real world.

- **Empirical:** Originating in or based on observation or experience.

- **Deduction:** Deriving of a conclusion by reasoning.

- **Induction:** Inference of a generalized conclusion from particular instances.

- **Analogy:** Resemblance in some particulars between things otherwise unlike.

- **Causal:** Expressing or indicating cause.

- **Correlation:** A relation existing between phenomena or things or between or between mathematical or statistical variables which tend to vary, be associated, or occur together in a way not expected on the basis of chance alone.

SCIENTIFIC REASONING VALUE RUBRIC

for more information contact value@aacu.org

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	2	Benchmark 1
Argument or Topic selection: Generating an empirically evidenced and logical argument	Identifies a creative, focused, and manageable argument or topic that addresses potentially significant yet previously less explored aspects.	Identifies a focused and manageable/doable argument or topic that appropriately addresses relevant aspects.	Identifies an argument or topic that while manageable/doable, is too narrowly focused and leaves out relevant aspects.	Identifies an argument or topic that is far too general and wide-ranging as to be manageable and doable.
Existing Knowledge, Research, and/or Views: Distinguishing a scientific argument from a non-scientific argument	Synthesizes in-depth information from credible and relevant sources representing various points of view/approaches.	Presents in-depth information from credible and relevant sources representing various points of view/approaches.	Presents information from credible and relevant sources representing limited points of view/approaches.	Presents information from non-credible and irrelevant sources representing limited points of view/approaches.
Methodology: Recognizing methods of inquiry that lead to scientific knowledge	All elements of the methodology or theoretical framework are skillfully developed. Appropriate methodology or theoretical frameworks may be synthesized from across disciplines or from relevant subdisciplines.	Critical elements of the methodology or theoretical framework are appropriately developed, however, more subtle elements are ignored or unaccounted for.	Critical elements of the methodology or theoretical framework are missing, incorrectly developed, or unfocused.	Inquiry demonstrates a misunderstanding of the methodology or theoretical framework.
Analysis: Reasoning by deduction, induction, and analogy	Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus. Demonstrates elegant ability to reason by deduction, induction, and analogy.	Organizes evidence to reveal important patterns, differences, or similarities related to focus. Demonstrates appropriate ability to reason by deduction, induction, and analogy.	Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities. Demonstrates limited ability to reason by deduction, induction, and analogy.	Lists evidence, but it is not organized and/or is unrelated to focus. Demonstrates no ability to reason by deduction, induction, and analogy.
Conclusions, Limitations and Implications: Distinguishing between causal and correlational relationships	States a conclusion that is a logical extrapolation from the inquiry findings limitations and implications. Demonstrates advanced ability to distinguish between causal and correlational relationships.	States a conclusion focused solely on the inquiry findings. The conclusion arises specifically from and responds specifically to the inquiry findings limitations and implications. Demonstrates appropriate ability to distinguish between causal and correlational relationships.	States a general conclusion that, because it is so general, also applies beyond the scope of the inquiry findings limitations and implications. Demonstrates limited ability to distinguish between causal and correlational relationships.	States an ambiguous, illogical, or unsupportable conclusion from inquiry findings limitations and implications. Demonstrates no ability to distinguish between causal and correlational relationships.

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ORAL COMMUNICATION RUBRIC

The type of oral communication most likely to be included in a collection of student work is an oral presentation and therefore is the focus for the application of this rubric.

DEFINITION

A person competent in oral communication demonstrates the ability to understand and interpret complex materials; assimilate, organize, develop, and present an idea formally and informally; use standard English; use appropriate verbal and non-verbal responses in interpersonal relations and group discussions; use listening skills; and recognize the role of culture in communication.

FRAMING LANGUAGE

Oral communication takes many forms. This rubric is specifically designed to evaluate oral presentations of a single speaker at a time and is best applied to live or video-recorded presentations. For panel presentations or group presentations, it is recommended that each speaker be evaluated separately. This rubric best applies to presentations of sufficient length such that a central message is conveyed, supported by one or more forms of supporting materials and includes a purposeful organization. An oral answer to a single question not designed to be structured into a presentation does not readily apply to this rubric.

GLOSSARY

The definitions that follow were developed to clarify terms and concepts used in this rubric only:

- **Content Development & Central message:** The main point/thesis/"bottom line"/"take-away" of a presentation. A clear central message is easy to identify; a compelling central message is also vivid and memorable.

- **Delivery techniques:** Posture, gestures, eye contact, and use of the voice. Delivery techniques enhance the effectiveness of the presentation when the speaker stands and moves with authority, looks more often at the audience than at his/her speaking materials/notes, uses the voice expressively, and uses few vocal fillers ("um," "uh," "like," "you know," etc.).

- **Language:** Vocabulary, terminology, and sentence structure. Language that supports the effectiveness of a presentation is appropriate to the topic and audience, grammatical, clear, and free from bias. Language that enhances the effectiveness of a presentation is also vivid, imaginative, and expressive.

- **Organization:** The grouping and sequencing of ideas and supporting material in a presentation. An organizational pattern that supports the effectiveness of a presentation typically includes

ORAL COMMUNICATION RUBRIC

an introduction, one or more identifiable sections in the body of the speech, and a conclusion. An organizational pattern that enhances the effectiveness of the presentation reflects a purposeful choice among possible alternatives, such as a chronological pattern, a problem-solution pattern, an analysis-of-parts pattern, etc., that makes the content of the presentation easier to follow and more likely to accomplish its purpose.

- **Supporting material:** Explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities, and other kinds of information or analysis that supports the principal ideas of the presentation. Supporting material is generally credible when it is relevant and derived from reliable and appropriate sources. Supporting material is

highly credible when it is also vivid and varied across the types listed above (e.g., a mix of examples, statistics, and references to authorities). Supporting material may also serve the purpose of establishing the speaker's credibility. For example, in presenting a creative work such as a dramatic reading of Shakespeare, supporting evidence may not advance the ideas of Shakespeare, but rather serve to establish the speaker as a credible Shakespearean actor. An accurate oral citation gives the audience member enough information that they could easily locate a source if they needed to. An inaccurate oral citation would be "According the New York Times 9 0ut of 10 people…" An accurate oral citation would be "According to a July 6th 2012 New York Times article titled *Seat Belt use in America*, written by Jonhanna Smith 9 out of 10 people…"

ORAL COMMUNICATION VALUE RUBRIC

for more information contact value@aacu.org

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.
Language	Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.
Central Message	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported.)	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.
Supporting Material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or established the presenter's credibility/authority on the topic. All outside sources used during the presentation are accurately cited orally.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that supports the presentation or establishes the presenter's credibility/authority on the topic. Some outside sources used during the presentation are accurately cited orally.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or established the presenter's credibility/authority on the topic. Outside sources used during the presentation are referenced, but not clearly cited.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that minimally supports the presentation or established the presenter's credibility/authority on the topic. Outside sources used in presentation are not orally cited.

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CULTURAL AND SOCIAL UNDERSTANDING RUBRIC

DEFINITION

The Virginia Community College System defines a socially and culturally competent person as one who possesses an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities. Degree graduates will demonstrate the ability to: assess the impact that social institutions have on individuals and cultures— past, present, and future; describe their own as well as others' personal ethical systems and values within social institutions; recognize the impact that arts and humanities have upon individuals and cultures; recognize the role of language in social and cultural contexts; and, recognize the interdependence of distinctive world-wide social, economic, geopolitical, and cultural systems.

CULTURAL AND SOCIAL UNDERSTANDING VALUE RUBRIC
for more information contact value@aacu.org

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Knowledge Assess the impact that institutions have on individuals and culture—past, present, and future.	Student is able to articulate insights into the impact and interrelationship between all social institutions (these might include government, education, religion, family, language or the economy) and culture—past, present, and future. Student is able to categorize these impacts (between individual and cultural).	Student is able to demonstrate significant awareness of social institutions and their impact on individuals and culture. In doing so, student is able to identify three or more social institutions (these might include government, education, religion, family, language or the economy) and has demonstrated some understanding of the past, present, and future impacts that these institutions have upon individuals and culture.	Student is able to demonstrate some awareness of social institutions and their current, past, or future impact on individuals and culture. In doing so, student is able to identify at least two social institutions (these might include government, education, religion, family, language or the economy) and has demonstrated some broad understanding of the interconnectedness between these institutions and individuals or culture.	Student is able to describe only a minimal awareness of social institutions and their impact on culture. Student is able to identify fewer than two social institutions (e.g. government, education, religion, family, language, or the economy). Student has not demonstrated an awareness of the current interconnectedness of social institutions and individuals or cultures.
Knowledge Describes their own as well as others' personal ethical systems and values within social institutions.	Student is able to demonstrate a broad understanding of ethical systems. Student is aware of and able to describe numerous aspects of their own ethical systems (e.g. moral obligations, beliefs for human conduct, and standards for societal or business behavior). Student demonstrates a thorough understanding of the relationship between their ethical system and social institutions and is able to compare their own standards with systems espoused by others.	Student is able to demonstrate a general understanding of ethical systems. Student is aware of and able to describe several aspects of their own ethical systems (e.g. moral obligations, beliefs for human conduct, and standards for societal or business behavior). Student can demonstrate either an understanding of the relationship between their ethical system and social institutions or be able to compare their own standards with systems espoused by others.	Student is able to demonstrate some understanding of ethical systems. Student is aware of and able to describe one or more aspect(s) of their own ethical systems (e.g. moral obligations, beliefs for human conduct, and standards for societal or business behavior) but is unable to relate these aspects to social institutions or compare them to systems espoused by others.	Student is able to describe only a minimal awareness of ethical systems. Student is unable to identify any distinguishing features of their own ethical system (e.g. moral obligations, beliefs for human conduct, and standards for societal or business behavior).
Skills Recognize the impact that the arts and humanities have upon individuals and cultures.	Student is able to articulate a broad understanding of the relationship between arts (e.g. theater, music, visual) and humanities (e.g. language, literature, philosophy and history) and individuals and cultures. Multiple connections are made between these elements.	Student is able to describe numerous impacts that arts (e.g. theater, music, visual) or humanities (e.g. language, literature, philosophy and history) may have upon individuals or cultures. Student is able to outline interconnectedness between numerous aspects of arts/humanities and culture.	Student is able to describe two or fewer impacts that arts (e.g. theater, music, visual) or humanities (e.g. language, literature, philosophy and history) may have upon individuals or cultures.	Students are able to describe only a basic impact that arts (e.g. theater, music, visual) and humanities (e.g. language, literature, philosophy and history) have on individuals and cultures.
Skills Recognize the role of language in social and cultural contexts.	Students recognize the role of language in social and cultural contexts. Students can discriminate between different aspects of language forms and styles in difference social settings (e.g. at home, in community, in professional setting).	Students are aware of and can describe the role of language in social and cultural contexts. Students are able to differentiate among communication forms and styles in numerous social settings (e.g. at home, in community, in professional setting).	Students are able to demonstrate a minimal awareness of the relationship between language and cultural contexts. Student displays some understanding of how languages adapt to different social and cultural contexts (e.g. at home, in community, in professional setting).	Students have little to no awareness of the relationship between language and cultural contexts. Students cannot differentiate among communication forms or styles in various social settings (e.g. at home, in community, in professional setting).
Skills Recognize the interdependence of distinctive world-wide social, economic, geo-political, and cultural systems.	Student is able to demonstrate an understanding of and is able to differentiate between the interdependence of each of the following distinctive world-wide systems: social, economic, geo-political, and cultural systems. Student is able to distinguish between world-wide systems and outline individual systems' interdependence.	Student recognizes and demonstrates understanding of the interdependence of three or more of the following distinctive world-wide systems: social, economic, geo-political, and cultural systems. Student demonstrates an understanding of the interdependences of several world-wide systems.	Student recognizes an understanding of the existence of one or two of the following distinctive world-wide systems: social, economic, geo-political, or cultural. Student displays some awareness of the interdependence of any two (or more) world-wide systems.	Student is able to demonstrate a minimal awareness of the existence of at least one of the following: distinctive world-wide systems: social, economic, geo-political, or cultural.

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PERSONAL DEVELOPMENT RUBRIC

DEFINITION

The Virginia Community College System defines a personally developed person as one who strives for physical well-being and emotional maturity. TCC graduates will demonstrate the ability to develop and/or refine personal wellness goals and develop and/or enhance the knowledge, skills and understanding to make informed academic, social, personal, career, and interpersonal decisions.

PERSONAL DEVELOPMENT VALUE RUBRIC
for more information contact value@aacu.org

Explanation	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Personal Wellness Demonstrates an ability to interpret personal wellness information, make modification(s), develop personal wellness goal(s), and create a strategy for achieving personal wellness goal(s).	Student interprets personal wellness information in terms of one's own personal wellness and identifies the modification(s) needed to pursue personal wellness goals. Student describes making modification(s) for personal wellness and articulates a strategy for achieving personal wellness goal(s).	Student demonstrates ability to interpret personal wellness information in terms of one's own personal wellness and articulates one or more modification(s) that are needed to pursue personal wellness goal(s). Student describes personal wellness goal(s) and implements at least one modification, but does not identify a strategy for reaching personal wellness goal(s).	Student demonstrates an understanding of personal wellness information and begins to interpret personal wellness information in terms of one's own personal wellness. Student begins to articulate personal wellness goal(s) and at least one modification that may be needed for pursuing goal(s).	Student begins to demonstrate an understanding of components of personal wellness, but may be unable to interpret it in terms of one's own personal wellness. Student does not describe personal wellness goal(s).
Decision-Making Demonstrates logical, well-balanced ability to make social, personal, and interpersonal decisions.	Student describes social, personal, and interpersonal decision(s) that are logical and demonstrates balanced thinking of critical thinking and reflective thought. Student considers multiple options and consequences and gives thorough consideration for using the best option, given alternative option(s) and consequence(s).	Student describes social, personal, and interpersonal decision(s) that are not reactionary or emotional but demonstrates some balanced, logical thinking with critical thinking and reflective thought. Student considers more than one option and gives some consideration for consequence(s) of choice.	Student demonstrates social, personal, and interpersonal decision-making that is not entirely reactionary or emotional. Decisions are given some critical thinking and/or reflective thought. Student gives little or no consideration for consequence(s).	Student describes social, personal, and interpersonal decisions that are reactive to situations or entirely emotional and are decided upon without critical thinking and/or reflective thought.
Academic and Professional Goal-Setting Describes personal, academic, and/or professional goal(s) and has developed a plan for achieving goal(s).	Student describes thoughtful, comprehensive personal, academic, and/or professional goal(s) that has a corresponding reasonable, thorough plan for achieving the goal(s).	Student describes personal, academic, or professional goal(s) with depth. Plan for achieving goal(s) is clearly described but may be inconsistent, unreasonable, or incomplete.	Student describes personal, academic, or professional goal(s), but goal(s) may lack clarity and/or complexity. Plan to achieve goal(s) is established.	Student describes consideration for personal, academic, and/or professional goal(s). No demonstrated plan for achieving goal(s) present.
Social and Interpersonal Development Demonstrates the ability to appreciate and empathize with the needs, values, and perspectives of others in relation to self.	Student describes the complexity, and validity of the needs, values, and perspectives of others in relation to self. Student demonstrates deeper appreciation and empathy for others' needs, values, and perspectives in relation to self. Student respects the opinions of others, even when they differ.	Student demonstrates an understanding of the complexity of others' needs, values, and perspectives. Student describes validity of others' needs, values, and perspectives with some relation to self. Student expresses some appreciation and empathy for others' needs, values, and perspectives in relation self. Student gives consideration to the differing opinions of others.	Student describes the needs, values, and perspectives of others with some consideration for the complexity of them. Student shows some understanding of validity of others' needs, and values, and perspectives. Student shows little to no appreciation or empathy for these needs, values, and perspectives of others in relation to self. Student begins to demonstrate acceptance of differing opinions of others.	Student is able to express the needs, values, and perspectives of others but demonstrates little to no understanding of the complexity or validity of them. Student shows little to no understanding of others' needs, values, and perspectives in relation to self. Student may respond negatively or critically to differing opinions of others.
Personal Identity Describes one's self in terms of personal identity, aspects and intersections, and as a part of a larger community.	Student demonstrates understanding of self with multiple personal identity intersections and the complexities of one's self with connections to personal identity and aspects, as well as to larger communities.	Student demonstrates understanding of self in two or more intersections of personal identity and demonstrates complex understanding of the connection of self to a larger community in more that one aspect of personal identity.	Student begins to describe personal identity and its aspects, as well intersections of at least two aspects of personal identity. Student demonstrates some understanding of how self is connected to a larger community in at least one aspect of personal identity.	Student expresses an understanding of self with limited understanding of personal identity and its aspects, and shows little to no understanding of the intersections of personal identity or the connection of self to a larger community.

Appendix D: Courses Selected for Assessment

General Education Assessment Plan

Courses Selected for Assessment by Learning Outcome and Cycle

Written Communication

Fall 2012 (Pilot)

BIO 142 Human Anatomy and Physiology II

ENG 241 Survey of American Literature I

HIS 122 United States History II

DMS 212 Obstetrical and Gynecological Sonography

PSY 235 Child Psychology

Fall 2014

ACQ 221 Advanced Acquisition and Procurement Management I[7]

MKT 170 Customer Service

NAS 131 Astronomy I

OCT 100 Introduction to Occupational Therapy

RAD 142 Principles of Radiographic Quality II

REL 230 Religions of the World

Information Literacy

Fall 2012 (Pilot)

ART 286 Communication Arts Workshop

ART 287 Portfolio and Resume Preparation

BIO 142 Human Anatomy and Physiology II

ECO 201 Principles of Macroeconomics

ENG 241 Survey of American Literature I

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[7] This course was selected for inclusion but not offered fall 2014.

HIS 122 United States History II

NUR 255 Nursing Organization and Management

Fall 2014

IDS 245 Computer-Aided Drafting for Interior Designers

ITE 119 Information Literacy

MDL 225 Clinical Hematology II

MKT 100 Principles of Marketing

SOC 201 Introduction to Sociology I

Critical Thinking

Spring 2013 (Pilot)

ENG 210 Advanced Composition

GOL 112 Oceanography II

HIS 112 History of World Civilization II

ITN 260 Network Security Basics

Spring 2014

ADJ 201 Criminology

DMS 207 Sectional Anatomy

EMS 111 Emergency Medical Technician - Basic

ENG 112 College Composition II

HIM 230 Information Systems and Technology in Health Care

HIS 142 African American History II

RTH 290 Coordinated Internship in Respiratory Therapy

Quantitative Reasoning

Spring 2013 (Pilot)

ACC 212 Principles of Accounting II

CHM 112 College Chemistry II

EGR 245 Engineering Mechanics - Dynamics

MTH 157 Elementary Statistics

MTH 270 Applied Calculus

RAD 205 Radiation Protection and Radiobiology

Spring 2015

AUT 169 Automotive Diagnostics IV

BUS 280 Introduction to International Business

CAD 202 Computer-Aided Drafting and Design II

CSC 215 Advanced Computer Organization[8]

FIN 215 Financial Management

MTH 164 Precalculus II

PHY 100 Elements of Physics

Scientific Reasoning

Spring 2013 (Pilot)

ADJ 234 Terrorism and Counter-Terrorism

ARC 133 Construction Methodology and Procedures I

BIO 102 General Biology II

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[8] This course was selected for inclusion but no work products were submitted for assessment.

EMS 211 Operations

PSY 255 Psychological Aspects of Criminal Behavior

Spring 2015

BIO 150 Introductory Microbiology

CHM 241 Organic Chemistry I

EGR 140 Engineering Mechanics – Statics

MEC 132 Mechanics II – Strength of Materials for EGR Tech

PSY 232 Life Span Human Development II

PTH 122 Therapeutic Procedures II

Oral Communication

Fall 2013 (Pilot)

CST 100 Principles of Public Speaking

Fall 2015

STUDENT LEARNING

CST 100 Principles of Public Speaking

CST 141 Theater Appreciation I

PLS 130 Basics of American Politics

PLS 211 U.S. Government I

ASSIGNMENT DESIGN

AST 205 Business Communications

BUS 100 Introduction to Business [9]

CHD 146 Math, Science, and Social Studies for Children

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[9] This course was selected for inclusion but no assignments were submitted for assessment.

ESL 33 Oral Communication I

FRE 101 Beginning French I

ITD 210 Web Page Design II

NUR 201 Psychiatric Nursing

SPA 101 Beginning Spanish I

SPA 201 Beginning Spanish II

WEL 124 Shielded Metal Arc Welding (Advanced)[10]

Cultural and Social Understanding

Fall 2013 (Pilot)

EMS 201 EMS Professional Development

GEO 210 People and the Land: Introduction to Cultural Geography

HUM 260 Survey of Twentieth-Century Culture

PHI 226 Social Ethics

PTH 210 Psychological Aspects of Therapy

SSC 210 Introduction to Women's Studies

Fall 2015

STUDENT LEARNING

ART 201 History of Art I

ENG 125 Introduction to Literature

ENG 241 Survey of American Literature I

HIS 101 History of Western Civilization I

HIS 111 History of World Civilization I

HIS 112 History of World Civilization II

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[10] This course was selected for inclusion but no assignments were submitted for assessment.

HIS 121 United States History I

HIS 122 United State History II

MUS 121 Music Appreciation I

MUS 122 Music Appreciation II

PSY 215 Abnormal Psychology

PSY 230 Developmental Psychology

REL 210 Survey of the New Testament[11]

REL 230 Religions of the World

SOC 201 Introduction to Sociology I

SOC 202 Introduction to Sociology II

SSC 210 Introduction to Women's Studies

ASSIGNMENT DESIGN

HIS 155 Life in Colonial Virginia

HLT 110 Concepts of Personal and Community Health

HMS 100 Introduction to Human Services[12]

HMS 258 Case Management and Substance Abuse[13]

PBS 265 Interviewing

PED 171 Ballroom Dance I

PSY 255 Psychological Aspects of Criminal Behavior

PTH 151 Musculoskeletal Structure and Function

PTH 226 Therapeutic Exercise

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[11] This course was selected for inclusion but no assignments were submitted for assessment.
[12] This course was selected for inclusion but no assignments were submitted for assessment.
[13] This course was selected for inclusion but no assignments were submitted for assessment.

SDV 101 Orientation to Health Care

Personal Development

Spring 2014 (Pilot)

CST 126 Interpersonal Communication

HLT 116 Introduction to Personal Wellness Concepts

HTL 215 Personal Stress and Stress Management

SDV 100 College Success Skills

SDV 108 College Survival Skills

Appendix E: Student Learning Data Analyses

Written Communication Fall 2012 Assessment Results

Context of and Purpose for Writing

Score Frequency

Rubric Score (n=50, Mean=2.21, Std Dev=0.90)
Transfer: n=27, Mean=2.13, Std Dev=0.72
Career & Technical: n=23, Mean=2.30, Std Dev=1.08

Capstone Achievement %

- Less than 2: 34%
- 2 or More: 66%

Content Development

Score Frequency

Rubric Score (n=50, Mean=1.86, Std Dev=0.85)
Transfer: n=27, Mean=1.81, Std Dev=0.80
Career & Technical: n=23, Mean=1.91, Std Dev=0.93

Capstone Achievement %

- Less than 2: 46%
- 2 or More: 54%

Genre and Disciplinary Conventions

Score Frequency

Rubric Score (n=49, Mean=1.94, Std Dev=0.77)
Transfer: n=27, Mean=1.98, Std Dev=0.67
Career & Technical: n=22, Mean=1.89, Std Dev=0.89

Capstone Achievement %

- Less than 2: 45%
- 2 or More: 55%

Written Communication Fall 2012 Assessment Results

Sources and Evidence

Score Frequency

Rubric Score (n=28, Mean=1.73, Std Dev=1.02)
Transfer: n=16, Mean=1.81, Std Dev=1.15
Career & Technical: n=12, Mean=1.63, Std Dev=0.86

Capstone Achievement %

50% / 50%
☐ Less than 2
■ 2 or More

Control of Syntax and Mechanics

Score Frequency

Rubric Score (n=50, Mean=1.85, Std Dev=0.83)
Transfer: n=27, Mean=1.78, Std Dev=0.75
Career & Technical: n=23, Mean=1.93, Std Dev=0.92

Capstone Achievement %

56% / 44%
☐ Less than 2
■ 2 or More

Information Literacy Fall 2012 Assessment Results

Determine the Extent of Information Needed

Score Frequency

Rubric Score (n=33, Mean=2.48, Std Dev=0.84)
Transfer: n=19, Mean=2.55, Std Dev=0.64
Career & Technical: n=14, Mean=2.39, Std Dev=1.08

Capstone Achievement %

15% Less than 2
85% 2 or More

Access the Needed Information

Score Frequency

Rubric Score (n=25, Mean=1.98, Std Dev=0.73)
Transfer: n=16, Mean=2.00, Std Dev=0.82
Career & Technical: n=9, Mean=1.94, Std Dev=0.58

Capstone Achievement %

20% Less than 2
80% 2 or More

Evaluate Information and Sources Critically

Score Frequency

Rubric Score (n=27, Mean=1.67, Std Dev=0.78)
Transfer: n=17, Mean=1.71, Std Dev=0.81
Career & Technical: n=10, Mean=1.60, Std Dev=0.77

Capstone Achievement %

48% 52% Less than 2
2 or More

Information Literacy Fall 2012 Assessment Results

Use Information Effectively to Accomplish a Specific Purpose

Score Frequency

# of Work Products

12, 2, 0, 3, 5, 7, 6, 8, 1, 0

Rubric Score (n=32, Mean=2.09, Std Dev=0.87)
Transfer: n=21, Mean=2.17, Std Dev=0.68
Career & Technical: n=11, Mean=1.95, Std Dev=1.19

Capstone Achievement %

31% — Less than 2
69% — 2 or More

Access and Use Information Ethically and Legally

Score Frequency

# of Work Products

17, 2, 0, 5, 6, 7, 2, 5, 0, 0

Rubric Score (n=27, Mean=1.78, Std Dev=0.85)
Transfer: n=18, Mean=1.83, Std Dev=0.84
Career & Technical: n=9, Mean=1.67, Std Dev=0.90

Capstone Achievement %

48% — Less than 2
52% — 2 or More

Critical Thinking Spring 2013 Assessment Results

Explanation of Issues

Score Frequency

Rubric Score (n=56, Mean=1.98, Std Dev=0.72)
Transfer: n=36, Mean=2.02, Std Dev=0.79
Career & Technical: n=20, Mean=1.91, Std Dev=0.57

Capstone Achievement %

32%
68%

☐ Less than 2
■ 2 or More

Evidence

Score Frequency

Rubric Score (n=52, Mean=1.67, Std Dev=0.63)
Transfer: n=35, Mean=1.57, Std Dev=0.58
Career & Technical: n=17, Mean=1.87, Std Dev=0.69

Capstone Achievement %

42%
58%

☐ Less than 2
■ 2 or More

Influence of Context and Assumptions

Score Frequency

Rubric Score (n=50, Mean=1.27, Std Dev=0.74)
Transfer: n=32, Mean=1.18, Std Dev=0.66
Career & Technical: n=18, Mean=1.44, Std Dev=0.87

Capstone Achievement %

26%
74%

☐ Less than 2
■ 2 or More

Critical Thinking Spring 2013 Assessment Results

Student's Position - Perspective, Thesis/Hypothesis

Score Frequency

Rubric Score (n=53, Mean=1.41, Std Dev=0.79)
Transfer: n=34, Mean=1.21, Std Dev=0.60
Career & Technical: n=19, Mean=1.77, Std Dev=0.97

Capstone Achievement %

23%
77%
□ Less than 2
■ 2 or More

Conclusions and Related Outcomes

Score Frequency

Rubric Score (n=56, Mean=1.56, Std Dev=0.71)
Transfer: n=36, Mean=1.46, Std Dev=0.67
Career & Technical: n=20, Mean=1.74, Std Dev=0.76

Capstone Achievement %

46%
54%
□ Less than 2
■ 2 or More

Solving Problems

Score Frequency

Rubric Score (n=19, Mean=1.43, Std Dev=0.75)
Transfer: n=12, Mean=1.26, Std Dev=0.73
Career & Technical: n=7, Mean=1.71, Std Dev=0.76

Capstone Achievement %

26%
74%
□ Less than 2
■ 2 or More

Quantitative Reasoning Spring 2013 Assessment Results

Interpretation

Score Frequency

Rubric Score (n=30, Mean=1.77, Std Dev=0.94)
Transfer: n=17, Mean=1.59, Std Dev=0.87
Career & Technical: n=13, Mean=2.00, Std Dev=1.00

Capstone Achievement %

37% — Less than 2
63% — 2 or More

Representation

Score Frequency

Rubric Score (n=42, Mean=2.02, Std Dev=0.87)
Transfer: n=24, Mean=1.99, Std Dev=0.84
Career &Technical: n=18, Mean=2.06, Std Dev=0.93

Capstone Achievement %

38% — Less than 2
62% — 2 or More

Calculation

Score Frequency

Rubric Score (n=44, Mean=2.33, Std Dev=0.74)
Transfer: n=27, Mean=2.30, Std Dev=0.65
Career &Technical: n=17, Mean=2.38, Std Dev=0.88

Capstone Achievement %

20% — Less than 2
80% — 2 or More

Quantitative Reasoning Spring 2013 Assessment Results

Application/Analysis

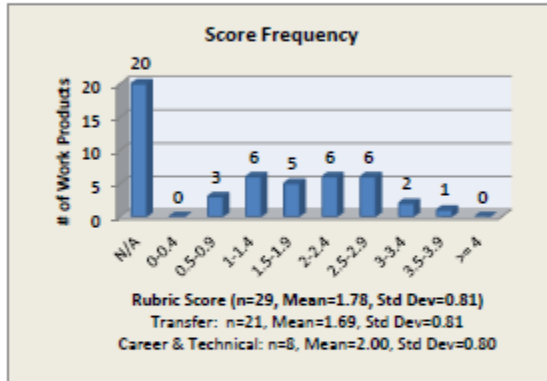**Score Frequency**

Rubric Score (n=38, Mean=1.82, Std Dev=0.99)
Transfer: n=21, Mean=1.81, Std Dev=1.07
Career &Technical: n=17, Mean=1.82, Std Dev=0.92

Capstone Achievement %

50% — Less than 2
50% — 2 or More

Assumptions

Score Frequency

Rubric Score (n=11, Mean=1.59, Std Dev=1.11)
Transfer: n=4, Mean=1.38, Std Dev=0.85
Career &Technical: n=7, Mean=1.71, Std Dev=1.29

Capstone Achievement %

36% — Less than 2
64% — 2 or More

Communication

Score Frequency

Rubric Score (n=21, Mean=2.13, Std Dev=0.91)
Transfer: n=8, Mean=1.94, Std Dev=0.73
Career &Technical: n=13, Mean=2.26, Std Dev=1.01

Capstone Achievement %

29% — Less than 2
71% — 2 or More

Scientific Reasoning Spring 2013 Assessment Results

Argument or Topic Selection

Score Frequency

# of Work Products

N/A: 20, 0-0.4: 0, 0.5-0.9: 3, 1-1.4: 6, 1.5-1.9: 5, 2-2.4: 6, 2.5-2.9: 6, 3-3.4: 2, 3.5-3.9: 1, >=4: 0

Rubric Score (n=29, Mean=1.78, Std Dev=0.81)
Transfer: n=21, Mean=1.69, Std Dev=0.81
Career & Technical: n=8, Mean=2.00, Std Dev=0.80

Capstone Achievement %

48% Less than 2
52% 2 or More

Existing Knowledge, Research and/or Views

Score Frequency

# of Work Products

N/A: 20, 0-0.4: 3, 0.5-0.9: 4, 1-1.4: 3, 1.5-1.9: 6, 2-2.4: 12, 2.5-2.9: 0, 3-3.4: 1, 3.5-3.9: 0, >=4: 0

Rubric Score (n=29, Mean=1.41, Std Dev=0.77)
Transfer: n=20, Mean=1.48, Std Dev=0.70
Career & Technical: n=9, Mean=1.28, Std Dev=0.94

Capstone Achievement %

45% Less than 2
55% 2 or More

Methodology

Score Frequency

# of Work Products

N/A: 25, 0-0.4: 3, 0.5-0.9: 2, 1-1.4: 2, 1.5-1.9: 2, 2-2.4: 6, 2.5-2.9: 4, 3-3.4: 4, 3.5-3.9: 1, >=4: 0

Rubric Score (n=24, Mean=1.81, Std Dev=1.05)
Transfer: n=18, Mean=1.83, Std Dev=1.06
Career & Technical: n=6, Mean=1.75, Std Dev=1.13

Capstone Achievement %

37% Less than 2
63% 2 or More

Scientific Reasoning Spring 2013 Assessment Results

Oral Communication Summer 2013 Assessment Results

Organization

Score Frequency

# of Work Products

N/A: 0, 0-0.4: 0, 0.5-0.9: 1, 1-1.4: 5, 1.5-1.9: 7, 2-2.4: 9, 2.5-2.9: 6, 3-3.4: 2, 3.5-3.9: 3, >= 4: 0

Rubric Score (n=33, Avg Score=2.06, Std Dev=0.75)
Transfer: n=26, Mean=2.08, Std Dev=0.78
Career & Technical: n=7, Mean=1.98, Std Dev=0.70

Capstone Achievement %

39% Less than 2
61% 2 or More

Language

Score Frequency

# of Work Products

N/A: 0, 0-0.4: 0, 0.5-0.9: 0, 1-1.4: 1, 1.5-1.9: 10, 2-2.4: 12, 2.5-2.9: 4, 3-3.4: 5, 3.5-3.9: 1, >= 4: 0

Rubric Score (n=33, Avg Score=2.12, Std Dev=0.56)
Transfer: n=26, Mean=2.20, Std Dev=0.59
Career & Technical: n=7, Mean=1.83, Std Dev=0.36

Capstone Achievement %

33% Less than 2
67% 2 or More

Delivery

Score Frequency

# of Work Products

N/A: 0, 0-0.4: 0, 0.5-0.9: 1, 1-1.4: 8, 1.5-1.9: 11, 2-2.4: 5, 2.5-2.9: 4, 3-3.4: 3, 3.5-3.9: 1, >= 4: 0

Rubric Score (n=33, Avg Score=1.81, Std Dev=0.70)
Transfer: n=26, Mean=1.82, Std Dev=0.74
Career & Technical: n=7, Mean=1.76, Std Dev=0.58

Capstone Achievement %

39% Less than 2
61% 2 or More

Oral Communication Summer 2013 Assessment Results

Central Message

Score Frequency

Rubric Score (n=33, Avg Score=2.21, Std Dev=0.69)
Transfer: n=26, Mean=2.18, Std Dev=0.75
Career & Technical: n=7, Mean=2.31, Std Dev=0.47

Capstone Achievement %

24% — Less than 2
76% — 2 or More

Supporting Material

Score Frequency

Rubric Score (n=33, Avg Score=1.75, Std Dev=0.93)
Transfer: n=26, Mean=1.87, Std Dev=0.93
Career & Technical: n=7, Mean=1.29, Std Dev=0.83

Capstone Achievement %

45% — Less than 2
55% — 2 or More
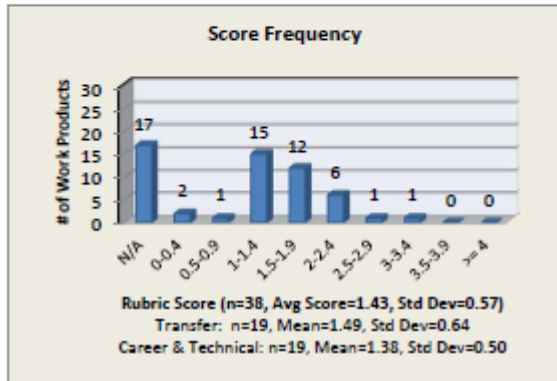
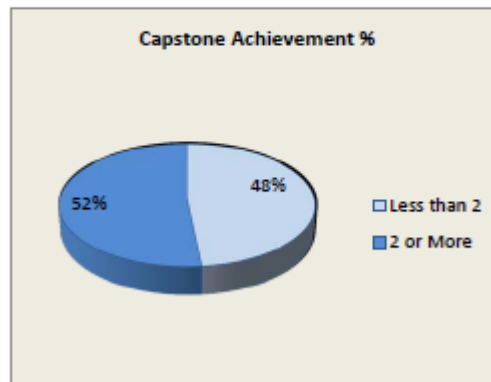## Cultural and Social Understanding Fall 2013 Assessment Results

Knowledge
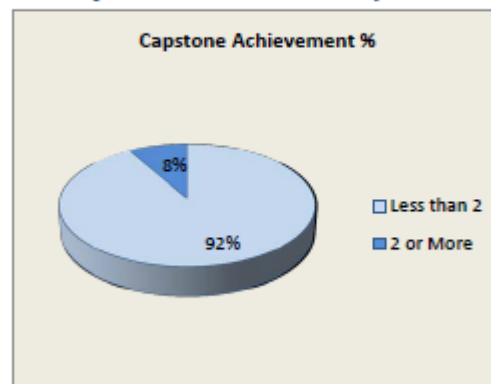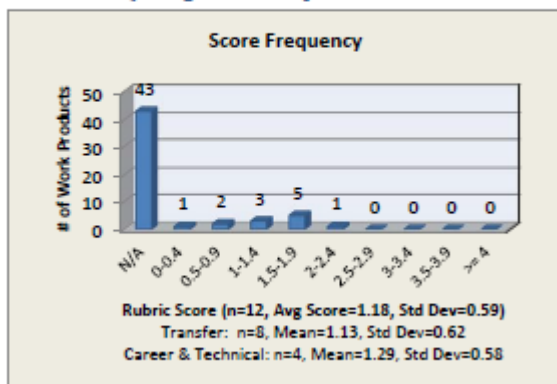(Assess the impact that institutions have on individuals and culture)
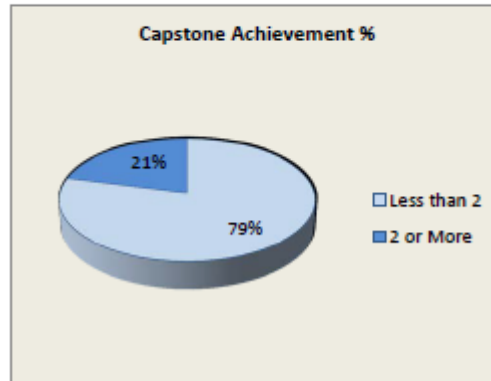
Score Frequency

Rubric Score (n=38, Avg Score=1.43, Std Dev=0.57)
Transfer: n=19, Mean=1.49, Std Dev=0.64
Career & Technical: n=19, Mean=1.38, Std Dev=0.50

Capstone Achievement %

- 21% — 2 or More
- 79% — Less than 2

Knowledge
(Describes their own as well as others' personal ethical systems and values)

Score Frequency

Rubric Score (n=31, Avg Score=1.80, Std Dev=0.54)
Transfer: n=17, Mean=1.72, Std Dev=0.67
Career & Technical: n=14, Mean=1.89, Std Dev=0.34

Capstone Achievement %

- 48% — Less than 2
- 52% — 2 or More

Skills
(Recognize the impact that arts and humanities have upon individuals and cultures)

Score Frequency

Rubric Score (n=12, Avg Score=1.18, Std Dev=0.59)
Transfer: n=8, Mean=1.13, Std Dev=0.62
Career & Technical: n=4, Mean=1.29, Std Dev=0.58

Capstone Achievement %

- 8% — 2 or More
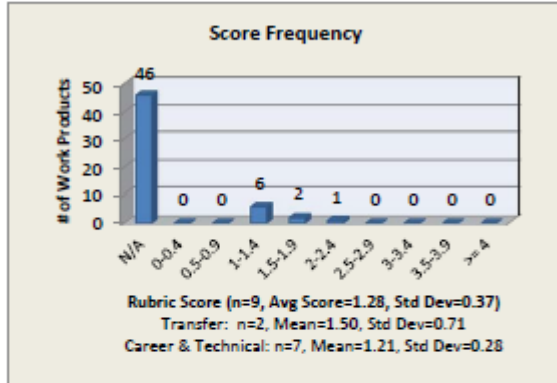- 92% — Less than 2

Cultural and Social Understanding Fall 2013 Assessment Results

Skills
(Recognize the role of language in social and cultural contexts)

Score Frequency

Rubric Score (n=9, Avg Score=1.28, Std Dev=0.37)
Transfer: n=2, Mean=1.50, Std Dev=0.71
Career & Technical: n=7, Mean=1.21, Std Dev=0.28

Capstone Achievement %
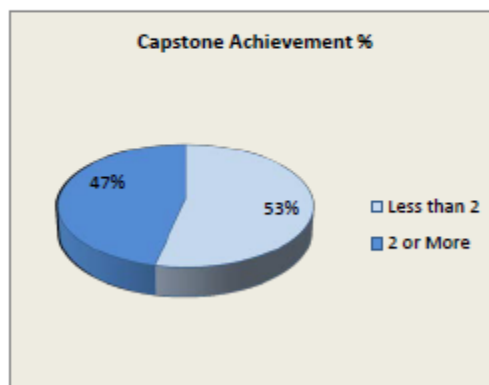

11%
89%
☐ Less than 2
◼ 2 or More

Skills
(Recognize interdependence of world-wide social, economic, geo-political, and cultural systems)

Score Frequency
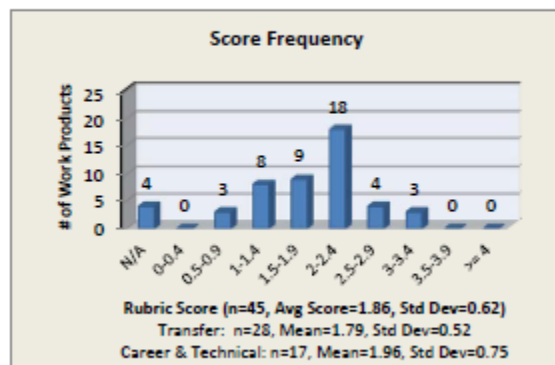

Rubric Score (n=27, Avg Score=1.41, Std Dev=0.38)
Transfer: n=13, Mean=1.45, Std Dev=0.43
Career & Technical: n=14, Mean=1.38, Std Dev=0.33

Capstone Achievement %

19%
81%
☐ Less than 2
◼ 2 or More

Personal Development Spring 2014 Assessment Results

Personal Wellness

Score Frequency

Rubric Score (n=43, Avg Score=1.76, Std Dev=0.64)
Transfer: n=25, Mean=1.74, Std Dev=0.64
Career & Technical: n=18, Mean=1.79, Std Dev=0.66

Capstone Achievement %

47%   53%   □ Less than 2   ■ 2 or More

Decision-Making

Score Frequency

Rubric Score (n=45, Avg Score=1.86, Std Dev=0.62)
Transfer: n=28, Mean=1.79, Std Dev=0.52
Career & Technical: n=17, Mean=1.96, Std Dev=0.75

Capstone Achievement %

44%   56%   □ Less than 2   ■ 2 or More

Academic and Professional Goal-Setting

Score Frequency

Rubric Score (n=41, Avg Score=1.86, Std Dev=0.77)
Transfer: n=24, Mean=1.93, Std Dev=0.76
Career & Technical: n=17, Mean=1.75, Std Dev=0.80

Capstone Achievement %

51%   49%   □ Less than 2   ■ 2 or More

Personal Development Spring 2014 Assessment Results

Social and Interpersonal Development

Score Frequency

Rubric Score (n=29, Avg Score=1.55, Std Dev=0.87)
Transfer: n=16, Mean=1.50, Std Dev=1.05
Career & Technical: n=13, Mean=1.60, Std Dev=0.61

Capstone Achievement %

38%
62%
□ Less than 2
■ 2 or More

Personal Identity

Score Frequency

Rubric Score (n=38, Avg Score=1.60, Std Dev=0.64)
Transfer: n=24, Mean=1.56, Std Dev=0.73
Career & Technical: n=14, Mean=1.67, Std Dev=0.46

Capstone Achievement %

34%
66%
□ Less than 2
■ 2 or More

Critical Thinking Spring 2014 Assessment Results

Explanation of Issues

Score Frequency

Rubric Score (n=94, Avg Score=1.81, Std Dev=0.73)
Transfer: n=52, Mean=1.81, Std Dev=0.69
Career & Technical: n=42, Mean=1.81, Std Dev=0.78

Capstone Achievement %

46% — Less than 2
54% — 2 or More

Evidence

Score Frequency

Rubric Score (n=87, Avg Score=1.64, Std Dev=0.68)
Transfer: n=49, Mean=1.64, Std Dev=0.56
Career & Technical: n=38, Mean=1.64, Std Dev=0.81

Capstone Achievement %

39% — Less than 2
61% — 2 or More

Influence of Context and Assumptions

Score Frequency

Rubric Score (n=90, Avg Score=1.39, Std Dev=0.64)
Transfer: n=51, Mean=1.36, Std Dev=0.56
Career & Technical: n=39, Mean=1.42, Std Dev=0.73

Capstone Achievement %

21% — Less than 2
79% — 2 or More

Critical Thinking Spring 2014 Assessment Results

Student's Position - Perspective, Thesis/Hypothesis

Score Frequency

Rubric Score (n=94, Avg Score=1.38, Std Dev=0.66)
Transfer: n=52, Mean=1.33, Std Dev=0.57
Career & Technical: n=42, Mean=1.45, Std Dev=0.75

Capstone Achievement %

21% — Less than 2
79% — 2 or More

Conclusions and Related Outcomes

Score Frequency

Rubric Score (n=94, Avg Score=1.52, Std Dev=0.63)
Transfer: n=52, Mean=1.46, Std Dev=0.48
Career & Technical: n=42, Mean=1.58, Std Dev=0.78

Capstone Achievement %

29% — Less than 2
71% — 2 or More

Solving Problems

Score Frequency

Rubric Score (n=66, Avg Score=1.43, Std Dev=0.76)
Transfer: n=37, Mean=1.34, Std Dev=0.71
Career & Technical: n=29, Mean=1.56, Std Dev=0.81

Capstone Achievement %

26% — Less than 2
74% — 2 or More

General Education Assessment Plan

Written Communication Fall 2014 Assessment Results

Context of and Purpose for Writing

Score Frequency

# of Work Products

Values: N/A: 0, 0-0.4: 0, 0.5-0.9: 2, 1-1.4: 11, 1.5-1.9: 16, 2-2.4: 21, 2.5-2.9: 10, 3-3.4: 27, 3.5-3.9: 7, >=4: 1

Rubric Score (n=95, Mean=2.33, Std Dev=0.82)
Transfer: n=53, Mean=2.12, Std Dev=0.88
Career & Technical: n=42, Mean=2.61, Std Dev=0.65

Capstone Achievement %

31% Less than 2
69% 2 or More

Content Development

Score Frequency

# of Work Products

Values: N/A: 1, 0-0.4: 1, 0.5-0.9: 5, 1-1.4: 16, 1.5-1.9: 13, 2-2.4: 30, 2.5-2.9: 11, 3-3.4: 11, 3.5-3.9: 6, >=4: 1

Rubric Score (n=94, Mean=2.05, Std Dev=0.83)
Transfer: n=52, Mean=1.87, Std Dev=0.87
Career & Technical: n=42, Mean=2.26, Std Dev=0.73

Capstone Achievement %

37% Less than 2
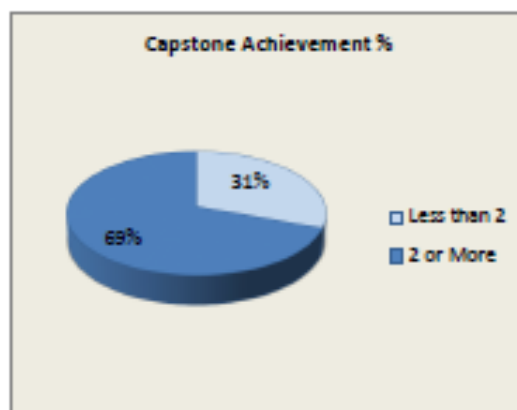63% 2 or More

Genre and Disciplinary Conventions

Score Frequency

# of Work Products

Values: N/A: 0, 0-0.4: 1, 0.5-0.9: 8, 1-1.4: 15, 1.5-1.9: 16, 2-2.4: 24, 2.5-2.9: 12, 3-3.4: 15, 3.5-3.9: 3, >=4: 1

Rubric Score (n=95, Mean=1.98, Std Dev=0.84)
Transfer: n=53, Mean=1.83, Std Dev=0.88
Career & Technical: n=42, Mean=2.17, Std Dev=0.76

Capstone Achievement %

42% Less than 2
58% 2 or More

Sources and Evidence

Score Frequency

Rubric Score (n=72, Mean=1.94, Std Dev=0.89)
Transfer: n=41, Mean=1.81, Std Dev=0.92
Career & Technical: n=31, Mean=2.10, Std Dev=0.82

Capstone Achievement %

39% — Less than 2
61% — 2 or More

Control of Syntax and Mechanics

Score Frequency

Rubric Score (n=95, Mean=2.09, Std Dev=0.76)
Transfer: n=53, Mean=1.96, Std Dev=0.82
Career & Technical: n=42, Mean=2.25, Std Dev=0.64

Capstone Achievement %

40% — Less than 2
60% — 2 or More

Information Literacy Fall 2014 Assessment Results

Determine the Extent of Information Needed

Score Frequency

Rubric Score (n=63, Mean=2.01, Std Dev=0.80)
Transfer: n=38, Mean=2.12, Std Dev=0.78
Career & Technical: n=25, Mean=1.83, Std Dev=0.82

Capstone Achievement %

- Less than 2: 33%
- 2 or More: 67%

Access the Needed Information

Score Frequency

Rubric Score (n=63, Mean=1.88, Std Dev=0.77)
Transfer: n=41, Mean=2.05, Std Dev=0.73
Career & Technical: n=22, Mean=1.58, Std Dev=0.77

Capstone Achievement %

- Less than 2: 43%
- 2 or More: 57%

Evaluate Information and Sources Critically

Score Frequency

Rubric Score (n=55, Mean=1.52, Std Dev=0.69)
Transfer: n=34, Mean=1.57, Std Dev=0.67
Career & Technical: n=21, Mean=1.43, Std Dev=0.73

Capstone Achievement %

- Less than 2: 71%
- 2 or More: 29%

Information Literacy Fall 2014 Assessment Results

Use Information Effectively to Accomplish a Specific Purpose

Score Frequency

Rubric Score [n=58, Mean=1.59, Std Dev=0.79]
Transfer: n=37, Mean=1.68, Std Dev=0.75
Career & Technical: n=21, Mean=1.42, Std Dev=0.83

Capstone Achievement %

41% 59%
☐ Less than 2
■ 2 or More

Access and Use Information Ethically and Legally

Score Frequency

Rubric Score [n=53, Mean=1.21, Std Dev=0.72]
Transfer: n=34, Mean=1.30, Std Dev=0.73
Career & Technical: n=19, Mean=1.05, Std Dev=0.68

Capstone Achievement %

17% 83%
☐ Less than 2
■ 2 or More

General Education Assessment Plan

Quantitative Reasoning Spring 2015 Assessment Results

Interpretation

Score Frequency

Rubric Score (n=59, Mean=2.11, Std Dev=0.67)
Transfer: n=25, Mean=2.06, Std Dev=0.69
Career & Technical: n=34, Mean=2.15, Std Dev=0.66

Capstone Achievement %

- Less than 2
- 2 or More

Representation

Score Frequency

Rubric Score (n=61, Mean=2.20, Std Dev=0.60)
Transfer: n=26, Mean=2.17, Std Dev=0.65
Career & Technical: n=35, Mean=2.23, Std Dev=0.57

Capstone Achievement %

- Less than 2
- 2 or More

Calculation

Score Frequency

Rubric Score (n=59, Mean=2.39, Std Dev=0.63)
Transfer: n=25, Mean=2.38, Std Dev=0.63
Career & Technical: n=34, Mean=2.40, Std Dev=0.63

Capstone Achievement %

- Less than 2
- 2 or More

Quantitative Reasoning Spring 2015 Assessment Results

Application/Analysis

Score Frequency

Rubric Score (n=49, Mean=1.98, Std Dev=0.62)
Transfer: n=17, Mean=1.88, Std Dev=0.66
Career & Technical: n=32, Mean=2.04, Std Dev=0.60

Capstone Achievement %

- 35% Less than 2
- 65% 2 or More

Assumptions

Score Frequency

Rubric Score (n=40, Mean=1.69, Std Dev=0.62)
Transfer: n=14, Mean=1.72, Std Dev=0.63
Career & Technical: n=26, Mean=1.68, Std Dev=0.63

Capstone Achievement %

- 55% Less than 2
- 45% 2 or More

Communication

Score Frequency

Rubric Score (n=47, Mean=2.40, Std Dev=0.64)
Transfer: n=17, Mean=2.18, Std Dev=0.72
Career & Technical: n=30, Mean=2.52, Std Dev=0.56

Capstone Achievement %

- 21% Less than 2
- 79% 2 or More

Scientific Reasoning Spring 2015 Assessment Results

Argument or Topic Selection

Score Frequency

Rubric Score (n=72, Mean=2.26, Std Dev=0.75)
Transfer: n=40, Mean=2.13, Std Dev=0.76
Career & Technical: n=32, Mean=2.42, Std Dev=0.71

Capstone Achievement %

Existing Knowledge, Research and/or Views

Score Frequency

Rubric Score (n=65, Mean=1.78, Std Dev=0.77)
Transfer: n=31, Mean=1.66, Std Dev=0.84
Career & Technical: n=34, Mean=1.90, Std Dev=0.70

Capstone Achievement %

Methodology

Score Frequency

Rubric Score (n=85, Mean=2.49, Std Dev=0.68)
Transfer: n=43, Mean=2.51, Std Dev=0.70
Career & Technical: n=42, Mean=2.47, Std Dev=0.67

Capstone Achievement %

Scientific Reasoning Spring 2015 Assessment Results

Analysis

Score Frequency

# of Work Products

N/A	0-0.4	0.5-0.9	1-1.4	1.5-1.9	2-2.4	2.5-2.9	3-3.4	3.5-3.9	>= 4
12	0	2	5	8	32	21	16	2	0

Rubric Score (n=86, Mean=2.27, Std Dev=0.62)
Transfer: n=43, Mean=2.19, Std Dev=0.63
Career & Technical: n=43, Mean=2.36, Std Dev=0.61

Capstone Achievement %

- 17% Less than 2
- 83% 2 or More

Conclusions, Limitations and Implications

Score Frequency

# of Work Products

N/A	0-0.4	0.5-0.9	1-1.4	1.5-1.9	2-2.4	2.5-2.9	3-3.4	3.5-3.9	>= 4
13	2	2	3	6	20	34	16	2	0

Rubric Score (n=85, Mean=2.33, Std Dev=0.66)
Transfer: n=45, Mean=2.22, Std Dev=0.70
Career & Technical: n=40, Mean=2.45, Std Dev=0.60

Capstone Achievement %

- 15% Less than 2
- 85% 2 or More

Oral Communication Fall 2015 Student Learning Results

Organization

Score Frequency

Rubric Score (n=77, Mean=2.08, Std Dev=0.56)
Transfer: n=63, Mean=2.03, Std Dev=0.54
Career & Technical: n=14, Mean=2.29, Std Dev=0.62

Capstone Achievement %

35% Less than 2
65% 2 or More

Language

Score Frequency

Rubric Score (n=78, Mean=2.28, Std Dev=0.48)
Transfer: n=63, Mean=2.24, Std Dev=0.49
Career & Technical: n=15, Mean=2.41, Std Dev=0.44

Capstone Achievement %

12% Less than 2
88% 2 or More

Delivery

Score Frequency

Rubric Score (n=78, Mean=2.09, Std Dev=0.62)
Transfer: n=63, Mean=2.09, Std Dev=0.60
Career & Technical: n=15, Mean=2.07, Std Dev=0.74

Capstone Achievement %

33% Less than 2
67% 2 or More

Oral Communication Fall 2015 Student Learning Results

Central Message

Score Frequency

Rubric Score (n=78, Mean=2.25, Std Dev=0.62)
Transfer: n=63, Mean=2.18, Std Dev=0.59
Career & Technical: n=15, Mean=2.55, Std Dev=0.69

Capstone Achievement %

24% Less than 2
76% 2 or More

Supporting Material

Score Frequency

Rubric Score (n=66, Mean=1.75, Std Dev=0.63)
Transfer: n=52, Mean=1.71, Std Dev=0.63
Career & Technical: n=14, Mean=1.90, Std Dev=0.66

Capstone Achievement %

44% Less than 2
56% 2 or More

Cultural and Social Understanding Fall 2015 Student Learning Results

Knowledge
(Assess the impact that institutions have on individuals and culture)
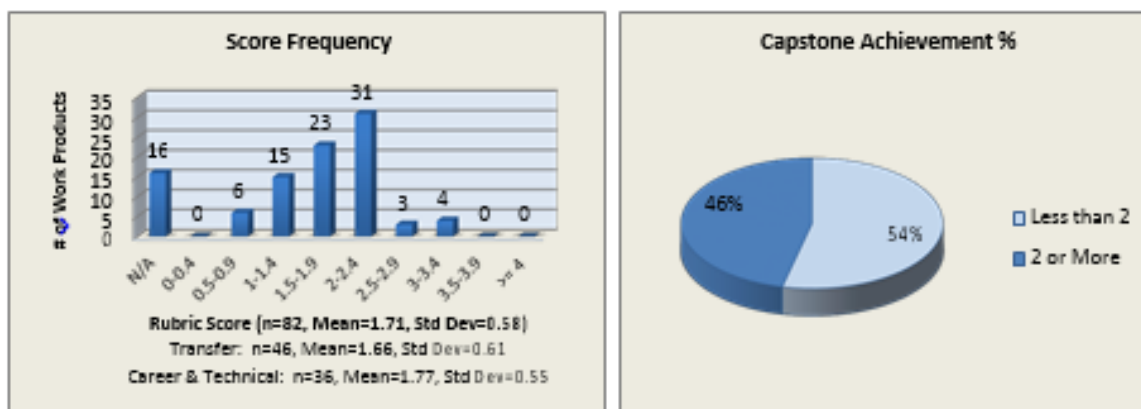
Score Frequency

Rubric Score (n=82, Mean=1.71, Std Dev=0.58)
Transfer: n=46, Mean=1.66, Std Dev=0.61
Career & Technical: n=36, Mean=1.77, Std Dev=0.55

Capstone Achievement %

46% — 2 or More
54% — Less than 2

Knowledge
(Describes their own as well as others' personal ethical systems and values)

Score Frequency

Rubric Score (n=64, Mean=1.84, Std Dev=0.58)
Transfer: n=34, Mean=1.87, Std Dev=0.54
Career & Technical: n=30, Mean=1.80, Std Dev=0.62

Capstone Achievement %

44% — Less than 2
56% — 2 or More

Skills
(Recognize the impact that arts and humanities have upon individuals and cultures)

Score Frequency

Rubric Score (n=38, Mean=1.56, Std Dev=0.61)
Transfer: n=17, Mean=1.52, Std Dev=0.54
Career & Technical: n=21, Mean=1.60, Std Dev=0.67

Capstone Achievement %

32% — 2 or More
68% — Less than 2

Cultural and Social Understanding Fall 2015 Student Learning Results

Skills
(Recognize the role of language in social and cultural contexts)

Score Frequency

# of Work Products

59
1 4 4 14 11 4 1 0 0

N/A 0-0.4 0.5-0.9 1-1.4 1.5-1.9 2-2.4 2.5-2.9 3-3.4 3.5-3.9 >= 4

Rubric Score (n=39, Mean=1.60, Std Dev=0.65)
Transfer: n=23, Mean=1.66, Std Dev=0.70
Career & Technical: n=16, Mean=1.52, Std Dev=0.58

Capstone Achievement %

41%   59%

☐ Less than 2
■ 2 or More

Skills
(Recognize interdependence of world-wide social, economic, geo-political, and cultural systems)

Score Frequency

# of Work Products

34
2 3 19 13 23 4 0 0 0

N/A 0-0.4 0.5-0.9 1-1.4 1.5-1.9 2-2.4 2.5-2.9 3-3.4 3.5-3.9 >= 4

Rubric Score (n=64, Mean=1.57, Std Dev=0.61)
Transfer: n=35, Mean=1.58, Std Dev=0.64
Career & Technical: n=29, Mean=1.57, Std Dev=0.58

Capstone Achievement %

42%   58%

☐ Less than 2
■ 2 or More

Appendix F: Assignment Design Data Analysis

Oral Communication Fall 2015 Assignment Design Results

Organization

Assignment Design

0 (0%)

8 (100%)

☐ Supports Dimension
■ Does Not Support Dimension

Language

Assignment Design

1 (13%)

7 (87%)

☐ Supports Dimension
■ Does Not Support Dimension

Delivery

Assignment Design

1 (13%)

7 (87%)

☐ Supports Dimension
■ Does Not Support Dimension

Oral Communication Fall 2015 Assignment Design Results

Central Message

Assignment Design

1 (13%)

7 (87%)

☐ Supports Dimension
☐ Does Not Support Dimension

Supporting Material

Assignment Design

2 (25%)

6 (75%)

☐ Supports Dimension
☐ Does Not Support Dimension

Cultural and Social Understanding Fall 2015 Assignment Design Results

Knowledge
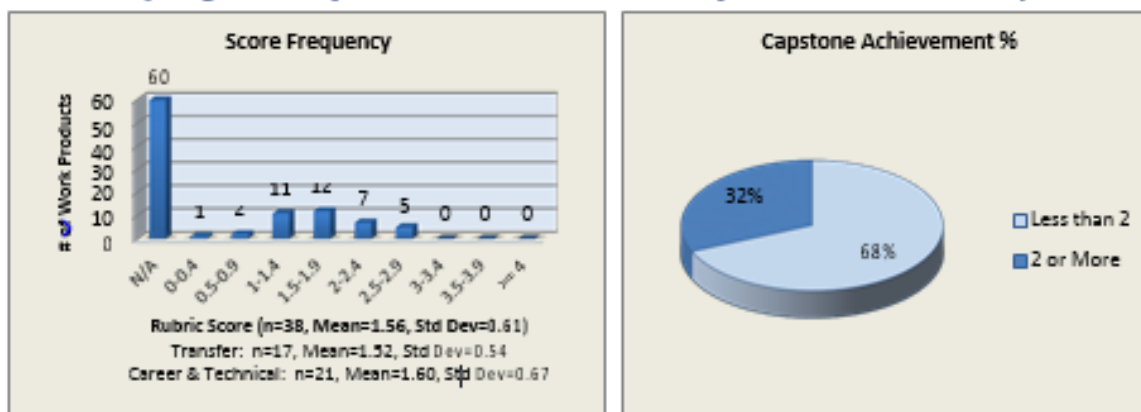(Assess the impact that institutions have on individuals and culture)

Assignment Design

- 2 (25%)
- 6 (75%)
- □ Supports Dimension
- ■ Does Not Support Dimension

Knowledge
(Describes their own as well as others' personal ethical systems and values)

Assignment Design

- 2 (25%)
- 6 (75%)
- □ Supports Dimension
- ■ Does Not Support Dimension

Skills
(Recognize the impact that arts and humanities have upon individuals and cultures)

Assignment Design

- 3 (38%)
- 5 (62%)
- □ Supports Dimension
- ■ Does Not Support Dimension

Cultural and Social Understanding Fall 2015 Assignment Design Results

Skills
(Recognize the role of language in social and cultural contexts)

Assignment Design

2 (25%)

6 (75%)

☐ Supports Dimension
■ Does Not Support Dimension

Skills
(Recognize interdependence of world-wide social, economic, geo-political, and cultural systems)

Assignment Design

4 (50%)   4 (50%)

☐ Supports Dimension
■ Does Not Support Dimension

Appendix G: Number of Courses Supporting Each Competency

Number of Courses Supporting Each Competency

Competency	Fall 2013	Fall 2015
Written Communication [14]	1080	752
Oral Communication		224
Critical Thinking	1171	974
Cultural and Social Understanding	503	274
Information Literacy	902	606
Quantitative Reasoning	596	471
Scientific Reasoning	471	238

[14] Written and Oral Communication were separated into two competencies on Official Course Outlines in fall 2015.

Appendix H: Timeline for Changes to Official TCC Course Outlines

General Education Assessment Plan

August

Elected discipline Faculty Facilitator begins his or her term.

Substantial changes recommended by the Curriculum Committee in February and approved by the VP for Student Learning and CAO are activated in i-INCURR.

Minor changes to the Official Course Outline (from the previous year) recommended by Discipline Faculty and assigned Dean/Director and approved by CAO are activated for fall semester.

Fall semester Discipline Meetings (dates to be determined) – any substantial changes to the Official Course Outline need to be presented by Discipline Faculty at this time to the Faculty Facilitator. Substantial changes are those defined by the Curriculum Committee as such.

September

Any new minor changes to the Official Course Outline approved by discipline Faculty and assigned Dean/Director will be entered into i-INCURR by the assigned Dean/Director. September – May 15

Substantial changes to the Official Course Outline presented in the fall discipline meetings are forwarded to the assigned academic Dean/Director for action. If recommended by the academic Dean/Director, the changes are forwarded to the Office of Academic Services for review and sent to the chair of the Curriculum Committee for action. Recommended substantive changes are forwarded to the VP of Student Learning and CAO for action. In all cases, requests for substantive changes must be submitted to the Curriculum Committee in time for their February meeting in order to provide time for the committee's action.

February

The Curriculum Committee will act on the Substantial changes to the Official Course Outlines presented in the fall semester (to include January). Substantial changes recommended by the Curriculum Committee in February are forwarded to the VP for action and, if approved, made live in i-INCURR effective on August 1.

Any substantial changes to the Official Course Outline that are not recommended by the Curriculum Committee or the VP must be resolved no later than the April Curriculum Committee meeting since the Committee does not meet during the summer.

April

Discipline Faculty Facilitators will be elected as needed for the next academic year.

May

Recommended minor changes to the Official Course Outline must be entered in i-INCURR by May 15 for eventual review and / or approval by the CAO for an August 1 effective date.

Summer

May – July substantial changes as well as any minor changes from the summer term will be presented by discipline faculty to the Faculty Facilitator during the Fall semester Discipline Meetings.

Appendix I: Authentic Assignment Tool

NAME:		COURSE:		DATE:

General Education Assessment: Authentic Assignment Tool

Competency: [   ]

Competency-specific AAT forms are being created and are more user-friendly. To determine if a competency-specific AAT form is available for the applicable competency, visit the college website at www.ti.edu, search, keyword: BEARS.

The General Education Assessment (GEA) Authentic Assignment Tool (AAT) is designed to help you evaluate how comprehensively an authentic assignment requires students to demonstrate the learning outcomes dimensions of a general education rubric.

> Authentic Assignments require students to apply standard-driven knowledge and skills to real-world challenges by demonstrating understanding through active use of the material. For example, Authentic Assignments may direct students to construct, perform, analyze, synthesize and/or apply concepts and/or skills.
>
> Traditional Assignments require student to recall or recognize through multiple choice, True/False, matching, or fill in the blank.
>
> *Traditional assignments are not appropriate for the GEA.

STEP 1   Read the general education rubric for the selected competency.

STEP 2   Identify an authentic assignment required in your course which directs students to provide detailed/substantial demonstrations of all the learning outcome dimensions identified in the selected general education rubric.

         If you do not require an assignment which prompts students to demonstrate all dimensions of the selected rubric, you may adapt an existing assignment to do so, or you may identify multiple assignments which in combination comprehensively support the rubric. If submitting multiple assignments, complete a separate AAT form for each assignment.

         Title of Assignment: [   ]

         Due Date for Students: [   ]

STEP 3   Complete the Assignment Support and Expected Score sections of the AAT (pages 2-7.)

STEP 4   In a brief narrative, summarize how your course supports the selected competency (page 8.)

AAT INSTRUCTIONS 1

Row 1 of selected rubric

Assignment Support: Identify and document how your assignment prompts students to demonstrate the learning outcome dimension in the first row of the selected rubric.

Expected Score: On average, what level of performance do you expect your students to demonstrate on this dimension?

○ 4 (Exemplary)   ○ 3 (Proficient)   ○ 2 (Developing)   ○ 1 (Emerging)   ○ NA (Assignment does not require dimension)

If NA, how could the assignment be adapted to require this dimension?

AAT 2

Row 2 of selected rubric

Assignment Support: Identify and document how your assignment prompts students to demonstrate the learning outcome dimension in the second row of the selected rubric.

Expected Score: On average, what level of performance do you expect your students to demonstrate on this dimension?

⚪ 4 (Exemplary) ⚪ 3 (Proficient) ⚪ 2 (Developing) ⚪ 1 (Emerging) ⚪ NA (Assignment does not require dimension)

If NA, how could the assignment be adapted to require this dimension?

AAT 3

Row 3 of selected rubric

Assignment Support: Identify and document how your assignment prompts students to demonstrate the learning outcome dimension in the third row of the selected rubric.

Expected Score: On average, what level of performance do you expect your students to demonstrate on this dimension?

⚪ 4 (Exemplary) ⚪ 3 (Proficient) ⚪ 2 (Developing) ⚪ 1 (Emerging) ⚪ NA (Assignment does not require dimension)

If NA, how could the assignment be adapted to require this dimension?

AAT 4

Row 4 of selected rubric

Assignment Support: Identify and document how your assignment prompts students to demonstrate the learning outcome dimension in the fourth row of the selected rubric.

Expected Score: On average, what level of performance do you expect your students to demonstrate on this dimension?

○ 4 (Exemplary) ○ 3 (Proficient) ○ 2 (Developing) ○ 1 (Emerging) ○ NA (Assignment does not require dimension)

If NA, how could the assignment be adapted to require this dimension?

AAT 5

Row 5 of selected rubric

Assignment Support: Identify and document how your assignment prompts students to demonstrate the learning outcome dimension in the fifth row of the selected rubric.

Expected Score: On average, what level of performance do you expect your students to demonstrate on this dimension?

○ 4 (Exemplary) ○ 3 (Proficient) ○ 2 (Developing) ○ 1 (Emerging) ○ NA (Assignment does not require dimension)

If NA, how could the assignment be adapted to require this dimension?

AAT 6

Row 6 of selected rubric	Assignment Support: Identify and document how your assignment prompts students to demonstrate the learning outcome dimension in the sixth row[1] of the selected rubric.
	Expected Score: On average, what level of performance do you expect your students to demonstrate on this dimension? ○ 4 (Exemplary) ○ 3 (Proficient) ○ 2 (Developing) ○ 1 (Emerging) ○ NA (Assignment does not require dimension)
	If NA, how could the assignment be adapted to require this dimension?

[1] Some general education rubrics do not have a sixth dimension.

AAT 7

Instructor's Narrative - In a brief narrative, summarize how your course supports the selected competency:

Instructor Narrative 8

Appendix J: Consultant Recommendations from Spring 2014

Linda Suskie, an internationally recognized assessment and accreditation consultant, provided the following recommendations which are the combination of her own thoughts with the "big ideas" faculty shared during the closing session of the spring 2014 *Learning Institute*:

- Work with other VCCS colleges to simplify the system's general education goals and learning outcomes.
- Focus on the VCCS general education goals rather than the student learning outcomes and prioritize the student learning outcomes.
- Develop a curriculum map aligning each VCCS general education goal with courses which satisfy each general education requirement.
- Revise the VALUE Rubrics for better alignment with the VCCS general education goals.
- Develop a process to offer further guidance and feedback to faculty on the assignments they develop to help students achieve and demonstrate the VCCS general education goals.
- Develop a timeline for deliverables (revised assignments, curriculum maps, and revised rubrics) to continue the momentum of the Learning Institute.
- Continue to offer professional development on teaching, grading, and assessment practices.
- Continue to foster interdisciplinary collaboration on designing learning experiences.
- Research e-portfolios.

Appendix K: Interrater Reliability

Fall 2015 General Education Assessment
Rater Agreement by Rubric Description

Oral Communication

Rubric Description	Rater Score Agreement*	Students Evaluated	Percent
1-Organization	Yes	61	78.2%
	No	17	21.8%
Total		78	100.0%
2-Language	Yes	71	91.0%
	No	7	9.0%
Total		78	100.0%
3-Delivery	Yes	66	84.6%
	No	12	15.4%
Total		78	100.0%
4-Central Message	Yes	69	88.5%
	No	9	11.5%
Total		78	100.0%
5-Supporting Material	Yes	45	57.7%
	No	33	42.3%
Total		78	100.0%

*Rater agreement is set to 'No' if the difference in the first and second raters' scores was greater than 1 or a score of 'not applicable' was assigned by one rater only (first or second rater)

Fall 2015 General Education Assessment
Rater Agreement by Rubric Description

Cultural and Social Understanding

Rubric Description	Rater Score Agreement*	Students Evaluated	Percent
1-Knowledge - Assess the impact that institutions have on individuals and culture	Yes	66	67.3%
	No	32	32.7%
Total		*98*	*100.0%*
2-Knowledge - Describes their own as well as others' personal ethical systems and values	Yes	52	53.1%
	No	46	46.9%
Total		*98*	*100.0%*
3-Skills - Recognize the impact that arts and humanities have upon individuals and cultures	Yes	69	70.4%
	No	29	29.6%
Total		*98*	*100.0%*
4-Skills - Recognize the role of language in social and cultural contexts	Yes	44	44.9%
	No	54	55.1%
Total		*98*	*100.0%*
5-Skills - Recognize interdependence of world-wide social, economic, geo-political, and cultural systems	Yes	55	56.1%
	No	43	43.9%
Total		*98*	*100.0%*

*Rater agreement is set to 'No' if the difference in the first and second raters' scores was greater than 1 or a score of 'not applicable' was assigned by one rater only (first or second rater)