# Central Virginia Community College 2022-23 General Education Assessment Report

#### Contact:

Dr. Kris Ogden Dean, Institutional Effectiveness and Strategic Planning (434) 832-7618 ogdenk@centralvirginia.edu

## **Central Virginia Community College**

#### **COMPETENCY AREA: General Education – Civic Engagement**

ADDITIONAL INSTITUTIONAL CONTACT: Charles Poff (poffc@centralvirginia.edu);

Michael Nagy (nagym@centralvirginia.edu)

MISSION: Central Virginia Community College is an accessible, comprehensive, public, two-year, higher education institution that is dedicated to:

- Providing open, flexible, affordable, quality learning opportunities for personal growth and the acquisition of knowledge and skills necessary for productive and meaningful life,
- Providing general education, transfer, applied science, certificate, and diploma programs,
- Determining and addressing the training needs of business, industry, and government to benefit the service area,
- Supporting workforce and economic development through participation in regional organizations and training for new and/or expanding businesses.
- Providing support services for education, training, technology infrastructure, and workforce development.

#### **INSTITUTIONAL GOALS (SUPPORTED):**

- 2. Student Supports
- 3. Workforce Credentials
  - 4. Affordability

**Civic Engagement** is the ability to contribute to the civic life and well-being of local, national, and global communities as both a social responsibility and a life-long learning process. Degree graduates will demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.

The following courses and additional assessments were planned for use to assess Civic Engagement during the 2022-23 academic year.

General Educ	cation
<b>Student Learning</b>	Outcomes

CE1 Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels. Identify forms of governance and leadership both nationally and globally. Give examples of the connections between founding documents of modern governance and national and local issues.

CE2 Formulate a plan to participate in government, community, and/or campus action. Evaluate the ethical implications of individual, community, and civic actions.

#### **Assessment Measure / Method**

**CE1.1** ECO 201 Graded Writing Assignment: Students enrolled in Principles of Macroeconomics (ECO 201) will complete a rubric graded writing assignment that acquaints students to civic engagement challenges.

**CE1.2** ENG 111 Graded Writing Assignment (Select Rubric Categories): Students enrolled in College Composition I (ENG 111) will complete a rubric graded writing assignment on a topic which pertains to civic engagement.

## **Target Goal / Criteria for Success**

CE1.1 70% of students enrolled in Principles of Macroeconomics (ECO 201) will score 70% or better on a rubric graded writing assignment to measure the extent to which students achieve the Student Learning Outcome(s):

- Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels.
- Identify forms of governance and leadership both nationally and globally.
- Give examples of the connections between founding documents of modern governance and national and local issues.

#### **Results and Findings**

**CE1.1** Target not met. 64% of students enrolled in Principles of Macroeconomics (ECO 201) scored 70% or better. Sample: N=94 (Fall 2022, Spring 2023)

**CE1.2** Target not met. Students in the sample scored an average of 14 in the Research/Evidence category. A score of 15 or higher is required for a score of two (minimal proficiency). Sample: N=87 (Fall 2022)

**CE2.1** No new data was made available from the National Study

# **Use of Results to Improve Outcomes**

BIO 102: To promote civic engagement skills, students in BIO 102 read articles on current medical treatments or solutions to environmental problems and discuss their pros and cons or rank which treatments/solutions are a higher priority than others. As a result, students report a better understanding of the different treatments/solutions that are available and how those could impact the decisions they make that affect their health, others' health, and the health of the environment.

**ENG 111/112**: To promote civic engagement skills, students in College Composition 1 and 2 are required to use

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen.  CE3. Present arguments, both for and against, regarding issues or events critical to participating as an informed citizen in a democratic society. Evaluate the outcomes of civic actions undertaken. Describe how diverse opinions, values, perspectives, and life experiences shape and characterize a society or community.	CE2.1 National Study of Learning, Voting, and Engagement (NSLVE) data: A college wide annual voting and voting registration drive will be conducted for state and federal elections (with student participation).  CE2.2 SOC 200 Graded Presentation Assignments: Students enrolled in Principles of Sociology (SOC 200) will prepare graded assignments on cultural and sub-cultural differences.  CE3.1 ENG 246 Graded Writing Assignment: Students enrolled in American Literature (ENG 246) will examine and discuss how literary texts are informed by socio-political, economic, cultural, historical, and biographical factors, and will complete a seven-page minimum, researched literary analysis addressing these attributes of an assigned text or texts.  CE3.2 PLS 135/136 Graded Writing Assignment: The rubric developed for this assignment assesses the ability of the students to communicate in writing and think critically after screening, selecting, and summarizing issue- related academic peer-reviewed research on a topic related to a problematic issue (national/PLS 135)/(State and local/PLS 136) of concern to the U.S.	CE1.2 A random sample of students enrolled in College Composition I (ENG 111) will score, on average, two (minimal proficiency) or higher in the Research/Evidence category of a rubric graded writing assignment using the CVCC Written Communication rubric (Appendix A) to measure the extent to which students achieve the Student Learning Outcome(s):  • Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels.  • Identify forms of governance and leadership both nationally and globally.  • Give examples of the connections between founding documents of modern governance and national and local issues.  CE2.1 Annual voting and voting registration drives will be conducted for state and federal elections (with student participation). In reference to baseline data acquired from the National Study of Learning, Voting, and Engagement (NSLVE): (a) Increase the percentage of students who vote, and (c) Exceed the national and state student voting averages. This aligns with the following Student Learning Outcome(s):  • Formulate a plan to participate in government, community, and/or campus action.  • Evaluate the ethical implications of individual, community, and civic actions.  • Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen.	of Learning, Voting, and Engagement (NSLVE) for the 2022-23 academic year.  4. Target met. 85.54% of a sample of students enrolled in Principles of Sociology (SOC 200) scored 70% or better. Sample: N=83 (Fall 2022, Spring 2023)  5. Target met. 85.71% of a sample of students enrolled in American Literature Courses (ENG 246) scored 70% or better. Sample: N=139 (Fall 2022, Spring 2023, Summer 2023)  6. Target met. 73.97% of a sample of students enrolled in U.S. Government and Politics (PLS 135) scored a 70% or better. Sample: N=73 (Fall 2022, Spring 2023)	civic Engagement essay assignment to help them avoid the problems of poor information sourcing and bias that undermine the goal of being an informed citizen in a democratic society. The results of this change were mixed, with students scoring higher on the "Reasoning" and "Development" components of the rubric, but lower on the "Research and Evidence" and "Rebuttal" components of the rubric.  ENG 112: To promote civic engagement skills, students in ENG 112 will write a literary analysis of a short story dealing with issues of economic and social inequality ("Harrison Bergeron," "The Ones Who Walk Away from Omelas," etc.), and then they will read and respond to selected essays from Micael J. Sandel's book Justice, which deals directly with those issues, in preparation for their final research argument. This is the final essay and wraps up the entire semester of reading, research, and classroom activities dealing with the question of what a just society looks like.  PLS 135: To promote civic engagement skills, students in PLS 135 write current event articles based on content we cover in class. As a result, students have shown more understanding of political events happening around them and better discussions in class.  PSY 230: To promote civic engagement skills, students in PSY 230 summarize an article on the importance of early childhood education and then conduct research on local early childhood education centers. As a result of this assignment, students learn about the importance of early childhood

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
		CE2.2 70% of students enrolled in Principles of Sociology (SOC 200) will score 70% or better on graded Civic Engagement related presentations to measure the extent to which students achieve the Student Learning Outcome(s):  • Formulate a plan to participate in government, community, and/or campus action.  • Evaluate the ethical implications of individual, community, and civic actions.  • Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen.  CE3.1 70% of students enrolled in American Literature Courses (ENG 246) will score 70% or better on a Civic Engagement related essay assignment to measure the extent to which students achieve the Student Learning Outcome(s):  • Present arguments, both for and against, regarding issues or events critical to participating as an informed citizen in a democratic society.  • Evaluate the outcomes of civic actions undertaken.  • Describe how diverse opinions, values, perspectives, and life experiences shape and characterize a society or community.		education programs and the lack of access to such programs based on socioeconomic status in their local communities.
		CE3.2 70% of students enrolled in enrolled in U.S. Government and Politics (PLS 135) will score 70% or better on a rubric graded APA or CMS research essay measuring the extent to which students achieve the Student Learning Outcome(s):  • Present arguments, both for and against, regarding issues or events critical to participating as an informed citizen in a democratic society.		

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
		<ul> <li>Evaluate the outcomes of civic actions undertaken.</li> <li>Describe how diverse opinions, values, perspectives, and life experiences shape and characterize a society or community.</li> </ul>		

**SUMMARY CONCLUSIONS:** The data presents a comprehensive overview of student performance in civic engagement-related coursework as well as in campus initiatives to improve voter participation. Students enrolled in U.S. Government and Politics (PLS 135), Principles of Sociology (SOC 200), and American Literature (ENG 246) all exceeded expectations, with 74%, 86%, and 86%, respectively, scoring above the target goal of 70% of assignments focused on fostering civic engagement. However, no new data was made available from the National Study of Learning, Voting, and Engagement (NSLVE) for the 2022-23 academic year, and students enrolled in College Composition I and College Composition II (ENG 111/112) and Principles of Macroeconomics (ECO 201) fell slightly short of the target goal. In the end, the data suggests significant success as well as areas for improvement, information that faculty and administrators will use to refine target goals, enhance pedagogy and assignment design, and otherwise innovate to ensure continuous improvement in student performance in civic engagement.

## **Central Virginia Community College**

## **COMPETENCY AREA: General Education – Critical Thinking**

ADDITIONAL INSTITUTIONAL CONTACTS: Shannon McDermott, (mcdermotts@centralvirginia.edu); Matthew Poteat (poteatm@centralvirginia.edu)

MISSION: Central Virginia Community College is an accessible, comprehensive, public, two-year, higher education institution that is dedicated to:

- Providing open, flexible, affordable, quality learning opportunities for personal growth and the acquisition of knowledge and skills necessary for productive and meaningful life,
- Providing general education, transfer, applied science, certificate, and diploma programs,
- Determining and addressing the training needs of business, industry, and government to benefit the service area,
- Supporting workforce and economic development through participation in regional organizations and training for new and/or expanding businesses.
- Providing support services for education, training, technology infrastructure, and workforce development.

#### **INSTITUTIONAL GOALS (SUPPORTED):**

- 1. Teaching and Learning
  2. Student Supports
  3. Workforce Credentials
  - 4. Affordability

**Critical Thinking** is the ability to use information, ideas, and arguments from relevant perspectives to make sense of complex issues and solve problems. Degree graduates will locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.

The following courses and additional assessments were planned for use to assess Critical Thinking during the 2022-23 academic year.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
CT1 Identify and evaluate relevant and diverse points of view. Identify logical fallacies, propaganda techniques, opinions, stereotypes, and assumptions. Identify conclusions based on empirical evidence.  CT2 Evaluate source materials for rigor, validity, and authenticity.  CT3 Use sources to develop rigorous	CT1.1 HIS 121/122 Graded Exam (Select Questions): Students enrolled in U.S. History I-II (HIS 121/122) will complete multiple- choice critical thinking questions on an exam.  CT1.2 ETS Proficiency Profile Abbreviated Form C (Unproctored): The ETS Proficiency Profile, a multiple-choice test, is administered to students completing an associate degree as a graduation requirement at the end of each term.  CT2.1 ECO 201 Graded Writing Assignment: Students enrolled in	CT1.1 70% of students enrolled in U.S. History I & II (HIS 121/122) will score a grade of 70% or better on critical thinking questions on an exam to measure the extent to which students achieve the Student Learning Outcome(s):  • Identify and evaluate relevant and diverse points of view, identify logical fallacies, propaganda techniques, opinions, stereotypes, and assumptions and identify conclusions based on empirical evidence.  CT1.2 Students graduating with an associate degree will score on average above the national norm on the Critical	CT1.1 Target met. 82% of students enrolled in U.S. History (HIS 121) scored 70% or better. 79% of students enrolled in U.S. History II (HIS 121) scored 70% or better. Sample: N=420 (Fall 2022 HIS 121); N=406 (Spring 2023 HIS 122)  CT1.2 Target met. Students in the 2022-2023 Graduate Cohort (280 students) scored an average of 109.96 on the Critical Thinking scaled score. The national norm for Associate's Colleges (43 institutions, 25,529 students) in 2022 is a score of 109.4 on the Critical Thinking scaled score. Sample: N=280 (2022-2023 Graduate Cohort)	thinking skills, students in ENG 111/112, are required to read a scholarly source for their mandatory Civic Engagement essay assignment, summarize and analyze that source, and prevent their summary analysis in a presentation to the class. The purpose of the assignment is to aid students in analyzing problems, data, and argument to aid them in constructing their own argument and in analyzing problems and data. The results of this assignment requirement were mixed, with students scoring higher on the "Reasoning" and "Development" components of the

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
arguments and analyze problems. Use deductive and inductive reasoning to draw conclusions based on data.	Principles of Macroeconomics (ECO 201) will complete a rubric graded writing assignment that requires reviewing an article and writing a narrative that acknowledges the presence of logical fallacies in the article as well as all economic issues being addressed.  CT2.2 BIO 101/102 Graded Exam: Students enrolled in General Biology I and II (Bio 101-102) complete common summative assessments (one per course) that require base knowledge, reading comprehension, and critical thinking.  CT3.1 ENG 111 Graded Writing Assignment (Select Rubric Categories): Students enrolled in College Composition I (ENG 111) complete a rubric graded writing assignment each term.  CT3.2 HIS 121/122 Graded Writing Assignment (Select Rubric Categories): Students enrolled in U.S. History I/II (HIS 101/102) will complete a rubric graded written response to an essay question each term.	Thinking scaled score of the ETS Proficiency Profile to measure the extent to which students achieve the Student Learning Outcome(s):  • Identify and evaluate relevant and diverse points of view, identify logical fallacies, propaganda techniques, opinions, stereotypes, and assumptions and identify conclusions based on empirical evidence.  CT2.1 70% of students enrolled in Principles of Macroeconomics (ECO 201) will score 70% or better on a rubric graded writing assignment that requires reviewing an article to measure the extent to which students achieve the Student Learning Outcome(s):  • Evaluate source materials for rigor, validity, and authenticity  CT2.2 70% of students enrolled in General Biology I & II (BIO 101/102) will correctly answer questions to measure the extent to which students achieve the Student Learning Outcome(s):  • Evaluate source materials for rigor, validity, and authenticity.  CT3.1 A random sample of students enrolled in College Composition (ENG 111) will score, on average, two (minimal proficiency) or higher on the Development category of a rubric graded writing assignment using the CVCC Written Communication rubric (Appendix A) to measure the extent to which students achieve the Student Learning Outcome(s):  • Use sources to develop rigorous arguments and analyze problems.	CT2.1 Target not met. 59% of students enrolled in Principles of Macroeconomics (ECO 201) scored 70% or better. Sample: N=83 (Fall 2022, Spring 2023)  CT2.2 Target met. 83% of students enrolled in General Biology I (BIO 101) answered questions correctly. 90% of students enrolled in General Biology II (BIO 102) correctly answered questions. Sample: N=216 (Fall 2022 BIO 101), N=154 (Spring 2023 BIO 102)  CT3.1 Target not met. Students in the sample scored an average of 19.3 in the Development category. A score of 20 or higher is required for a score of two (minimal proficiency). Sample: N=87 (Fall 2022)  CT3.2 Target met. 89% of students in HIS 121/HIS 122 achieved a score of two (minimal proficiency) or higher on the Sources, Citations, and Argument and Accuracy categories of a rubric graded essay question. Sample: N=420 (Fall 2022 HIS 121); N=406 (Spring 2023 HIS 122)	common rubric, but lower on the "Rebuttal" components.  ENG 111/112: In order to promote critical thinking skills, students in ENG 111 and 112 learn and become proficient at identifying informal logical fallacies. As a result, they are able to better navigate the bad reasoning and false information that proliferates on social media.  PLS 135: To promote critical thinking skills, students in PLS 135 will do current events that will help them discern real events and facts from fake ones. This will lead them to be less susceptible to fake news, misinformation, and disinformation.  HIS 121/122: Faculty will continue to monitor, evaluate, and discuss assessment tools and methods in collaborative meetings and email communication to ensure stated targets continue to improve.  BIO 101/102: To improve student application of critical thinking concepts, the Biology faculty will continue to focus on evaluating sources.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
		<ul> <li>Use deductive and inductive reasoning to draw conclusions based on data.</li> </ul>		
		CT3.2 70% of students enrolled in U.S. History I & II (HIS 121/122) will achieve a score of two (minimal proficiency) or higher on the Sources, Citations, and Argument and Accuracy categories of a rubric graded essay question response CVCC History Writing Assignment Rubric (Appendix B) to measure the extent to which students achieve the Student Learning Outcome(s):  • Use sources to develop rigorous arguments and analyze problems.  • Use deductive and inductive reasoning to draw conclusions based on the data.		

**SUMMARY CONCLUSIONS:** In summary, the data presents a comprehensive overview of critical thinking and academic performance across multiple courses. U.S. History courses (HIS 121/122) demonstrated success, meeting their respective targets with 82% and 79% of students scoring 70% or better. General Biology (BIO 101-102) also met the target goal with 83% and 90% of students answering questions correctly. The 2022-2023 Graduate Cohort also excelled, surpassing the national norm in Critical Thinking scaled scores. However, challenges are observed in Principles of Macroeconomics (ECO 201), where the target scores of 70% or better were not achieved. College Composition (ENG 111) also fell slightly below the required threshold, suggesting the Development part of the assignment is a specific area for improvement. The data suggests that students in U.S. History courses exhibited strong proficiency in essay writing, with 89% achieving minimal proficiency or higher in specified rubric categories and that students in General Biology are able to distinguish higher quality sources. Overall, these findings highlight both successes and areas for enhancement, providing valuable insights for refining teaching strategies and fostering continuous improvement in critical thinking and academic achievement.

## **Central Virginia Community College**

COMPETENCY AREA: General Education – Professional Readiness ADDITIONAL INSTITUTIONAL CONTACTS: Kimberly French (frenchk@centralvirginia.edu); Sheila Smith (smithsk@centralvirginia.edu)

MISSION: Central Virginia Community College is an accessible, comprehensive, public, two-year, higher education institution that is dedicated to:

- Providing open, flexible, affordable, quality learning opportunities for personal growth and the acquisition of knowledge and skills necessary for productive and meaningful life,
- Providing general education, transfer, applied science, certificate, and diploma programs,
- Determining and addressing the training needs of business, industry, and government to benefit the service area,
- Supporting workforce and economic development through participation in regional organizations and training for new and/or expanding businesses.
- Providing support services for education, training, technology infrastructure, and workforce development.

#### **INSTITUTIONAL GOALS (SUPPORTED):**

- 1. Teaching and Learning2. Student Supports
- 3. Workforce Credentials
  - 4. Affordability

**Professional Readiness** is the ability to work well with others and display situationally and culturally appropriate demeanor and behavior. Degree graduates will demonstrate skills important for successful transition into the workplace and pursuit of further education.

The following courses and additional assessments were planned for use to assess Professional Readiness during the 2022-23 academic year.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
PR1 Recognize appropriate workplace and classroom habits, demeanor, and behavior. Identify the qualities of an ethical decision.  PR2 Collaborate with others on a task to achieve a common goal. Cultivate skills to communicate effectively and professionally.	PR1.1 SDV 100 Graded Assignment: Students enrolled in College Success Skills (SDV 100) will view Communication Style modules specific to communication style types, communicating messages, listening, and difficult conversations and complete multiple-choice questions at the end of each module.	PR1.1 Seventy percent (70%) of students enrolled in College Success Skills (SDV 100) will score 70% or better on a Communication Styles assignment to measure the extent to which students achieve the Student Learning Outcome(s):  • Recognize appropriate workplace and classroom habits, demeanor, and	PR1.1 Target met. 94% of students enrolled in College Success Skills (SDV 100) scored 70% or better. Sample: N=479 (Fall 2022 SDV 100)  PR2.1 Target met. 96% of students enrolled in Principles of Public Speaking (CST 100) scored 70% or better. Sample: N=118 (Fall 2022,	PLS 135: To promote professional readiness skills, students in PLS 135 learn about all different types of political ideologies and perspectives, which will lead to more understanding of people with different viewpoints.
PR3 Set goals, and implement a plan for personal, professional, and/or academic achievement.	PR2.1 CST 100 Graded Public Speaking Assignment: Students enrolled in Principles of Public Speaking (CST 100) complete a graded public speaking assignment that requires the student to research a persuasive topic, use evidence to	behavior.  • Identify the qualities of an ethical decision.  PR2.1 70% of students enrolled in Principles of Public Speaking (CST 100) will score 70% or better on a persuasive public speaking assignment	PR3.1 Target not met. 67% of first time in college, program-placed students completed the Program Planner Student Survey with a score of 70% or better. Sample: N=518 (Fall 2022)	

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
	support the claim, and demonstrate components of argumentation to attempt to convince their audience of their claims.  PR3.1 Program Planner Student Survey: In order to set goals, and implement a plan for personal, professional, and/or academic achievement, students enrolled in College Success Skills (SDV 100) will complete a Program Planner Student Survey using Navigate technology each fall. EAB Navigate is a Student Success Collaborative (SSC) acquired for all VCCS and implemented at each community college. The technology is integrated with the Student Information System. The SSC Program Planner contains current data on the national hiring demand, salary range, critical skills, and required education for careers related to each major.	to measure the extent to which students achieve the Student Learning Outcome(s):  • Collaborate with others on a task to achieve a common goal.  • Cultivate skills to communicate effectively and professionally.  PR3.1 80% of first time in college, program-placed students will complete the Program Planner Student Survey using Navigate technology with a score of 70% or better each fall to measure the extent to which students achieve the Student Learning Outcome(s):  • Set goals, and implement a plan for personal, professional, and/or academic achievement.		

**SUMMARY CONCLUSIONS:** The results for the communication style assessment were met and students successfully passed their assessment. Moving forward students will continue to utilize the assessment to measure the communication learning outcomes. The results from the Program Planner in Navigate fell short of meeting the learning outcome. In the future, we will be holding workshops for students to attend to learn how to use the program planner effectively. This will be assessed again to make sure we are progressing towards our targeted goal.

## **Central Virginia Community College**

#### **COMPETENCY AREA: General Education – Quantitative Literacy**

ADDITIONAL INSTITUTIONAL CONTACT: Xavier Retnam (retnamx@centralvirginia.edu); Yalitza Figueroa (figueroay@centralvirginia.edu)

MISSION: Central Virginia Community College is an accessible, comprehensive, public, two-year, higher education institution that is dedicated to:

- Providing open, flexible, affordable, quality learning opportunities for personal growth and the acquisition of knowledge and skills necessary for productive and meaningful life,
- Providing general education, transfer, applied science, certificate, and diploma programs,
- Determining and addressing the training needs of business, industry, and government to benefit the service area,
- Supporting workforce and economic development through participation in regional organizations and training for new and/or expanding businesses.
- Providing support services for education, training, technology infrastructure, and workforce development.

#### **INSTITUTIONAL GOALS (SUPPORTED):**

- 1. Teaching and Learning2. Student Supports
- 3. Workforce Credentials
- 4. Affordability

**Quantitative Literacy** is the ability to perform accurate calculations, interpret quantitative information, apply, and analyze relevant numerical data, and use results to support conclusions. Degree graduates will calculate, interpret, and use numerical and quantitative information in a variety of settings.

The following courses and additional assessments were planned for use to assess Quantitative Literacy during the 2022-23 academic year.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
QL1 Distinguish between quantitative and qualitative analysis. Identify numerical information presented in relevant equations, graphs, diagrams, tables, and words.	QL1.1 ETS Proficiency Profile Abbreviated Form C (Un proctored): The ETS Proficiency Profile, a multiple- choice test, is administered to students completing an associate degree as a graduation requirement at the end of	QL1.1 Students graduating with an associate degree will score on average above the national norm on the mathematics scaled score of the ETS Proficiency Profile to measure the extent to which students achieve the	QL1.1 Target met. Students in the 2022-23 graduation cohort achieved a mean of 111.7 on the mathematics scaled score of the ETS Proficiency Profile, as compared to a national norm of 111.4. Sample: N=280 (2022-23	MTH 154/1551/161: During fall 2023 math faculty collaborated with a consultant and advising services to identify steps during onboarding to ensure students demonstrate selfefficacy and math readiness to support
QL2 Interpret quantitative information to draw relevant conclusions. Evaluate numerical	each term.  QL2.1 HIS 121 Graded Exam: Students	Student Learning Outcome(s):  • Distinguish between quantitative and qualitative analysis.	Graduate Student Cohort)  QL2.1 Target met. 93% of students	their success in achieving the desired student learning outcomes.
information for usefulness, accuracy, and significance.	enrolled in U.S. History I-II (HIS 121/122) will correctly respond to openended Quantitative Literacy questions	Identify numerical information presented in relevant equations, graphs, diagrams, tables, and words.	enrolled in U.S. History I (HIS 121) scored 70% or better. Sample: N=420 (Fall 2022 HIS 121)	MTH 154/155/161: Beginning Summer 2024 new students will be offered a summer bootcamp prior to enrolling in
QL3 Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.	on an exam each semester.  QL3.1 MTH 161 Graded Exam: Students enrolled in Pre-Calculus I (MTH 161) will complete a graded final	QL2.1 70% of students enrolled in U.S. History I (HIS 121) will score 70% or better on Quantitative Literacy questions on an exam to measure the	QL3.1 Target not met. 41% of students enrolled in Pre-Calculus I (MTH 161) scored 70% or better. Sample: N=87 (Fall 2022, Spring 2023)	their college-level math course. In this bootcamp, students will practice common skills and habits to prepare for their math courses.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
	exam that requires calculating and conveying information as part of Quantitative Literacy.  QL3.2 BIO 101/102 Graded Lab Assignments: Students enrolled in General Biology I-II (BIO 101/102) will correctly complete lab assignments that require presenting data in tables and graphs.  QL3.3 CHM 111/112 Graded Exam: Students enrolled in General Chemistry I and General Chemistry II (CHM 111 – 112) will correctly complete Quantitative Literacy questions on a graded exam.	extent to which students achieve the Student Learning Outcome(s):  • Interpret quantitative information to draw relevant conclusions.  • Evaluate numerical information for usefulness, accuracy, and significance.  QL3.1 Seventy percent (70%) of students enrolled in Pre-Calculus I (MTH 161) will score 70% or better on a comprehensive final exam to measure the extent to which students achieve the Student Learning Outcome(s):  • Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.  QL3.2 70% of students enrolled in General Biology I & II (BIO 101/102) will score 70% or better on the Quantitative Literacy portion of graded lab assignments to measure the extent to which students achieve the Student Learning Outcome(s):  • Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.  QL3.3 70% of students in General Chemistry I & General Chemistry II (CHM 111/112) will score 70% or better on a comprehensive final exam to measure the extent to which students achieve the Student Learning Outcome(s):  • Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.	QL3.2 Target met. 86% of students enrolled in General Biology I & II (BIO 101/102) scored 70% or better. Sample: N=63 (Fall 2022, Spring 2023)  QL3.3 Target partially met. 79% of students in General Chemistry I (CHM 111) scored 70% or better. 65% of students in General Chemistry II (CHM 112) scored 70% or better. Sample: N=83 (CHM 111, Fall 2022, Spring 2023); N=36 (CHM 112, Spring 2023)	

**SUMMARY CONCLUSIONS:** 

The provided data provides a complete overview of student performance in quantitative literacy-related coursework and the ETS Proficiency Profile. All targets for U.S. History I (HIS 121), General Biology I & II (BIO 101/102), General Chemistry I, and the ETS Proficiency Profile were achieved. Students scored slightly above the national average in the ETS Proficiency Profile for quantity literacy. However, students failed to meet the target goal of scoring 70% or better on a comprehensive final exam to measure the extent to which students achieve the Student Learning outcomes in Pre-Calculus I (MTH 161) and General Chemistry I (CHM 112). Overall, the data is a mix of both success and the need for improvement. The faculty has used this data to identify the steps during onboarding that ensure students demonstrate self-efficacy and math readiness to support their success in achieving the desired student learning outcomes in Pre-calculus and General Chemistry II.

## **Central Virginia Community College**

## **COMPETENCY AREA: General Education – Scientific Literacy**

ADDITIONAL INSTITUTIONAL CONTACT: Nelson Ayala (ayalan@centralvirginia.edu); Shannon McDermott (mcdermotts@centralvirginia.edu)

MISSION: Central Virginia Community College is an accessible, comprehensive, public, two-year, higher education institution that is dedicated to:

- Providing open, flexible, affordable, quality learning opportunities for personal growth and the acquisition of knowledge and skills necessary for productive and meaningful life,
- Providing general education, transfer, applied science, certificate, and diploma programs,
- Determining and addressing the training needs of business, industry, and government to benefit the service area,
- Supporting workforce and economic development through participation in regional organizations and training for new and/or expanding businesses.
- Providing support services for education, training, technology infrastructure, and workforce development.

#### **INSTITUTIONAL GOALS (SUPPORTED):**

- 1. Teaching and Learning
- 2. Student Supports
- 3. Workforce Credentials
- 4. Affordability

**Scientific Literacy** is the ability to apply the scientific method and related concepts and principles to make informed decisions and engage with issues related to the natural, physical, and social world. Degree graduates will recognize and know how to use the scientific method, and to evaluate empirical information.

The following courses and additional assessments were planned for use to assess Scientific Literacy during the 2022-23 academic year.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
SL1 Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.	SL1.1 ETS Proficiency Profile Abbreviated Form C (Unproctored): The ETS Proficiency Profile, a multiple- choice test, is administered to students completing an Associate degree as a graduation requirement at the end of	SL1.1 Students graduating with an associate degree will score on average above the national norm on the Natural Sciences scaled score of the ETS Proficiency Profile to measure the extent to which students achieve the	SL1.1 Target met. Students in the 2022-23 graduation cohort achieved a mean of 113.26 on the Natural Sciences scaled score of the ETS Proficiency Profile, as compared to a national norm of 113.1. Sample: N=280	PLS 135: To promote scientific literacy skills, students in PLS 135 complete assignments where they have to figure out if news articles are real or fake, and in doing so use the scientific method to deduce if it's real or fake.
SL2 Design an experiment to test a hypothesis.  SL3 Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings.	each term.  SL1.2 BIO 101/102 Graded Exam: Students enrolled in General Biology I- II (BIO 101/102) will answer questions in a common summative assessment that requires identifying components of scientific inquiry.  SL2.1 BIO 101/102 Graded	Student Learning Outcome(s):  • Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.  SL1.2 70% of the students enrolled in General Biology I & II (BIO 101/102) will correctly answer Scientific Literacy	(2022-23 Graduate Student Cohort)	BIO 101-102: To improve student application of scientific method concepts, the Biology faculty will continue to focus on incorporating scientific method applications in lecture/labs/activities (ex. having students come up with hypotheses, determining dependent/independent variables, designing and conducting

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
	Students enrolled in General Biology I-II (BIO 101/102) will correctly complete formative assignments that require designing an experiment to test a hypothesis.  SL2.2 CHM 111/112 Graded Assignments: Students enrolled in General Chemistry I-II (CHM 111/112) will correctly prepare lab reports where they need to complete experimental data sheets, work mathematical calculations related to data, and answer questions related to the lab work performed.  SL3.1 BIO 101/102 Graded Lab Assignments: Students enrolled in in General Biology I-II (BIO 101/102) will complete lab assignments that require them to conduct and experiment to test a hypothesis, analyze the results, and communicate the findings.	questions on the end-of-course examination to measure the extent to which students achieve the Student Learning Outcome(s):  • Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.  SL2.1 70% of the students enrolled in General Biology I & II (BIO 101 and 102) will score 70% or better on the formative Scientific Literacy assignments to measure the extent to which students achieve the Student Learning Outcome(s):  • Design an experiment to test a hypothesis.  SL2.2 70% of students enrolled in General Chemistry I & II (CHM 111/112) will score 70% or better on assignments that measure the extent to which students achieve the Student Learning Outcome(s):  • Practice the mechanism of science when performing laboratory experiments.  SL3.1 70% of students enrolled in General Biology I & II (BIO 101/102) will score 70% or better on the Scientific Literacy portion of graded lab assignments to measure the extent to which students achieve the Student Learning Outcome(s):  • Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings.	SL2.1 Target met. 93% of the students enrolled in General Biology I & II (BIO 101/102) scored 70% or better. Sample: N=28 (BIO 102, Spring 2023)  SL2.2 Target met. 93% of students enrolled in General Chemistry I (CHM 111) scored 70% or better. 94% of students enrolled in General Chemistry II (CHM 112) scored 70% or better. Sample: N=83 (CHM 111, Fall 2022, Spring 2023); N=36 (CHM 112, Spring 2023)  SL3.1 Target met. 75% of students enrolled in General Biology I & II (BIO 101/102) scored 70% or better. Sample: N=53 (BIO 102, Fall 2022, Spring 2023)	

**SUMMARY CONCLUSIONS:** The data suggests moderate performance in scientific literacy. All targets were met across all measures (General Biology I-II, General Chemistry I-II, and the Natural Sciences section of the ETS Proficiency Profile). While target goals were achieved, science faculty will continue to seek improvement, specifically in learning outcomes 1 and 3 where the data were closest to the 70% target. We may need to spend more time on these concepts and/or develop/redesign assessments to provide additional practice.

## **Central Virginia Community College**

#### **COMPETENCY AREA: General Education – Written Communication**

## ADDITIONAL INSTITUTIONAL CONTACT: Charles Poff (poffc@centralvirginia.edu)

MISSION: Central Virginia Community College is an accessible, comprehensive, public, two-year, higher education institution that is dedicated to:

- Providing open, flexible, affordable, quality learning opportunities for personal growth and the acquisition of knowledge and skills necessary for productive and meaningful life,
- Providing general education, transfer, applied science, certificate, and diploma programs,
- Determining and addressing the training needs of business, industry, and government to benefit the service area,
- Supporting workforce and economic development through participation in regional organizations and training for new and/or expanding businesses.
- Providing support services for education, training, technology infrastructure, and workforce development.

#### **INSTITUTIONAL GOALS (SUPPORTED):**

- Student Supports
- 3. Workforce Credentials
- 4. Affordability

Written Communication is the ability to develop, convey, and exchange ideas in writing, as appropriate to a given context and audience. Degree graduates will express themselves effectively in a variety of written forms.

The following courses and additional assessments were planned for use to assess Written Communication during the 2022-23 academic year.

# General Education Student Learning Outcomes

WC1 Identify key components of sentence and paragraph structure. Discern the purpose and context of a variety of written communications and their intended audience.

WC2 Construct sentences, paragraphs, essays, and documents with clear, concise, and appropriate language according to conventional English usage, grammar, and mechanics.

WC3 Use clear, appropriate, and relevant language to convey or support a main idea or hypothesis with evidence.

# **Assessment Measure / Method**

WC1.1 ETS Proficiency Profile Abbreviated Form C (Unproctored): Students graduating with an Associate degree are administered the ETS Proficiency Profile in Writing at the end of each semester as a graduation requirement.

WC2.1 HIS 121/122 Graded Writing Assignment (Select Rubric Categories): Students enrolled in U.S. History I/II (HIS 101/102) will complete a rubric-graded written response to an essay question each term.

**WC3.1** ENG 111 Graded Writing Assignment (Select Rubric Categories): Students enrolled in College

# **Target Goal / Criteria for Success**

WC1.1 Students graduating with an associate degree will score, on average, above the national norm on the Writing scaled score of the ETS Proficiency Profile to measure the extent to which students achieve the Student Learning Outcome(s):

- Identify key components of sentence and paragraph structure.
- Discern the purpose and context of a variety of written communications and their intended audience.

WC2.1 70% of students enrolled in U.S. History I & II (HIS 121/122) will achieve a score of two (minimal proficiency) or higher on the Conventions of Grammar and Style

# **Results and Findings**

WC1.1 Target not met. Students in the 2022-2023 Graduate Cohort (280 students) scored an average of 111.75 on the Writing scaled score. The national norm for Associate's Colleges (43 institutions, 25,529 students) in 2022 is a score of 112.2 on the Critical Thinking scaled score. Sample: N=280 (2022-2023 Graduate Cohort)

WC2.1 Target met. 89% of students in HIS 121/HIS 122 achieved a score of two (minimal proficiency) or higher on the Conventions of Grammar and Style and Argument and Accuracy categories of a rubric graded essay question. Sample: N=420 (Fall 2022 HIS 121); N=406 (Spring 2023 HIS 122)

# Use of Results to Improve Outcomes

**ENG 111/112**: To promote written communication skills, students in College Composition 1 and 2, EDE 011-ENG 111 are required to meet with writing center tutors to work on competencies including style and voice, organization, and format. Students in ENG 111/ENG 112 engage in peer review, self-editing exercises, formal lessons on grammar and stylistics, and/or individual meetings with professors to improve style and voice, organization, and format. As a consequence of these assignments, scores for students in ENG 111/ENG 112 improved in the "style and voice" and "organization" components of the common rubric assessment but

Composition I (ENG 111) complete a rubric graded writing assignment each term.  and Argument and Accuracy categories of a rubric graded essay question (Appendix B) to measure the extent to which students achieve the students cannot see and appropriate language according to conventional English usage, grammar, and mechanics.  WC3.1 A random sample of students enrolled in College composition I (ENG 111) will score, on average, minimal proficiency (two) or higher in the Organization, 150 points in Systematics, 150 points in Systematics, 150 points in Systematics, 150 points in College Composition I (ENC 111) will score, on average, minimal proficiency (two) or higher in the Organization, 150 points in College Composition I (Appendix A) to measure the extent to which students achieve the Students enrolled in College Composition I (Appendix A) to measure the extent to which students achieve the Students the CVCC Withen Communication rubric (Appendix A) to measure the extent to which students achieve the Students achieve the Students achieve the Students achieve the Students and their intended audiention rubric and proficiency (two) or higher in the Organization, 150 points in Organization, 150 points in Systemation, 150 p	General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
extent to which students achieve the Students Learning Outcome(s):  - Construct sentences, paragraphs, essays, and documents with clear, concise, and appropriate language according to conventional English usage, grammar, and mechanics.  - WC3.1 A random sample of students enrolled in College Composition 1 (ENG 111) will score, on average, minimal proficiency (two) or higher in the Organization, 151 onlish in Organization, 15 points in Organization,		rubric graded writing assignment each	categories of a rubric graded essay		
with evidence.			question (Appendix B) to measure the extent to which students achieve the Student Learning Outcome(s):  • Construct sentences, paragraphs, essays, and documents with clear, concise, and appropriate language according to conventional English usage, grammar, and mechanics.  WC3.1 A random sample of students enrolled in College Composition I (ENG 111) will score, on average, minimal proficiency (two) or higher in the Organization, Style/Voice, Sentence Structure, and Proofreading and Formatting categories of a rubric graded writing assignment using the CVCC Written Communication rubric (Appendix A) to measure the extent to which students achieve the Student Learning Outcome(s):  • Identify key components of sentence and paragraph structure.  • Discern the purpose and context of a variety of written communications and their intended audience.  • Construct sentences, paragraphs, essays and documents with clear concise and appropriate language according to conventional English usage, grammar, and mechanics.  • Use clear, appropriate, and relevant language to convey or support a main idea or hypothesis	categories). Students achieved minimal proficiency (two) in the Style/Voice and Sentence Structure categories. Students scored, on average, 19.7 points in Organization, 15.1 points in Style/Voice, 15.2 points in Sentence Structure, and 14.2 points in Proofreading and Formatting. Minimum proficiency (two) correlates to a score of 20 points in Organization, 15 points in Style/Voice, 15 points in Sentence Structure, and 15 points in Proofreading and Formatting. Sample:	PLS 135: To promote written communication skills, students in PLS 135 complete a wide range of writing assignments, from current events to discussion boards to summaries of their political ideologies. All of these

**SUMMARY CONCLUSIONS:** The data presents a comprehensive overview of student performance in civic engagement-related coursework as well as on the ETS Proficiency Profile. Students enrolled in U.S. History I & II (HIS 121/122) exceeded expectations, with 89% scoring above the target goal of 70% on an assignment designed to measure written communication aptitude. However, and students enrolled in College Composition I and College Composition II (ENG 111/112) fell slightly short of the target goal in two of four rubric categories for written communication, and students scored slightly below the national average in the ETD Proficiency Profile for written communication. Overall, the data is a "mixed bag," suggesting some success as well as the need for improvement. This data assists faculty and administrators as they work to enhance pedagogy and assignment design and innovate to ensure continuous improvement in student performance in written communication.

# Appendix A: "Big Read" Written Communication Assessment Rubric



# Essay Number:

# CIRCLE HERE if Essay is Not a Civic Engagement Argument

	Park 11 Lateran		- 2334 is itera civic Engagement / ite	A3140000000		
Element	Score 3: (A/B)		Score 2 (C)	Score 1: (D/F)		
Title	Title clearly identifies the topic and focus of the essay and is consistent with the expectations for an academic essay.	10	Title could be more specific and descriptive.		Title is unspecific, misleading, or missing.	
Introduction	Introduction engages the reader's attention and is sufficiently clear and developed in presenting the topic.	20	Introduction could be more engaging, clear, developed, or more tightly focused.	15	Introduction is not adequately developed or engaging (i.e., mechanical) and lacks clarity and focus.	100
Thesis	The thesis is specific, arguable, and manageable in scope. Claim matches the assignment criteria.	20	The thesis could be more specific, focused, or arguable. Claim matches the assignment criteria.	15	The thesis is nonexistent, obvious, or unrealistic. Claim does not match assignment criteria.	13.
Organization	Overall flow of ideas from beginning to end is logically presented according to a clear plan. Topic sentences are clear and explicit. Transitions are skillful, varied, and clearly indicate the logical relationships within and between paragraphs.	30	A structure is apparent, but the logic behind the structure could be more clearly justified. Topic sentences are generally clear. Transitions are generally present but are either mechanically deployed or hard to identify in context.	20	Paper shows a lack of revision and rambles from idea to idea, from paragraph to paragraph. Topic sentences are missing or unrelated to the thesis or paragraph content. Transitions are unclear, illogical, or virtually nonexistent.	
Paragraph Development	Paragraphs demonstrate sufficient development and discussion of a single main idea. Paragraphs have appropriate scope and are proportional.	20	Paragraphs could be developed more fully with relevant discussion. Paragraphs could be more unified and focused. Paragraphs sometimes lack proper proportion.	10	Paragraphs are unfocused and/or undeveloped, lacking adequate discussion of ideas. Paragraphs are disproportionate.	
Evidence and Research	Support for the claim is skillfully selected and integrated into the argument, with appropriate signal phrases and discussion, using an adequate number of reliable and appropriate academic sources. Sufficient and varied types of evidence are used.		Evidence is generally solid but could be integrated and discussed more effectively and skillfully. Signal phrases and discussion could be strengthened, and the essay relies on a more limited number of sources or on some lower quality sources. Less robust and various types of evidence are used.	20	Little or no evidence is used or appears randomly selected, poorly integrated, and insufficiently discussed with inadequate, unreliable, inappropriate, or fake sources. Lacks relevant examples, evidence, and types of evidence.	1000
Reasoning	Discussion of evidence demonstrates thoughtful, relevant, and logical reasoning.		Discussion of evidence is somewhat simplistic, consisting mostly of restatement, not reflection.	15	Little or no reflection on the evidence; frequent rhetorical and logical fallacies are present.	
Rebuttal	Opposing arguments are considered and skillfully answered either throughout the paper or near the end.		Opposing arguments are considered in a mechanical and insufficient way, leaving key ideas unexplored.	15	Opposing arguments are not considered or are dealt with in a trivial and insufficient way.	10.
Conclusion	Conclusion achieves a strong sense of closure for the argument.		Conclusion is mechanical, focusing on mere restatement, and could be developed more strategically.		Essay ends abruptly without a clear conclusion.	
Style/Voice	The word choice and phrasing are appropriate to the academic level of the assignment. Writing is vivid, specific, concrete, and creative.		Variations in style and voice are apparent, ranging from formal to informal. Writing tends to be abstract and generic, lacking vivid and precise descriptions.	15	Essay demonstrates little consistency of tone, style, or voice with inappropriate words and phraseology or abstract generalities.	97
Sentence Structure	Sentences are grammatically correct with adequate complexity for college writing; sufficiently varied and strategically written to reflect logical connections among ideas.		Sentence construction could be more strategic to reflect logical connections of ideas. Repetitive structures could be varied. Some sentence boundary problems are present (fragments, comma splices, fused sentences).	15	Sentence structure is too simplistic for formal academic writing. Repetitive and mechanical structures are found throughout. There are numerous problems with sentence boundaries and related punctuation.	
Proofreading Formatting Documentation	Overall essay is consistent with MLA style for format,		Essay has some limited oversights in editing, proofreading, and formatting. Essay is reasonably consistent with MLA style, with specific areas for improvement in format, parenthetical citations, or Work's Cited.	15	Essay has numerous and distracting errors in editing, proofreading, or formatting. Essay largely disregards MLA conventions, displays major deviations from the style, or uses non MLA documentation for format, parenthetical citations, or Work's Cited.	
	re/Total Points Here and Sc (200-25)	ore 3 50 Pa		\$	Score 1 Below 175 Points	

# **Appendix B: History Written Assignment Rubric**

	Excellent	Good	Needs Improvement	Poor
Organization/Overall Impression  Argument/Thesis	Assignment exceeds expectations, is presented with clarity, precision, and attention to detail. Writing is crisp, clear, direct, and informative.  Essay contains a clear	Assignment meets expectations, is presented adequately and competently. Writing is clear and informative.	Assignment meets most expectations, but needs improvement. Writing contains errors and lacks clarity.  Argument is made, but	Assignment does not meet expectations. Writing contains numerous errors.  No attempt is made to
Argument/Thesis Statement	argument/thesis statement that follows the instructions. Provides compelling and accurate evidence that convinces reader to accept main argument	An argument that follows the instructions is present, but reader must reconstruct it from the text. Provides necessary evidence to convince reader of most aspects of the main argument.	Argument is made, but does not follow the instructions, is inadequate or not clear. Not enough evidence is provided to support author's argument, or evidence is incomplete, incorrect, or oversimplified.	No attempt is made to articulate an argument. Either no evidence is provided, or there are numerous factual mistakes, omissions or oversimplifications.
Clarity, Style, and Accuracy	All sentences are grammatically correct and clearly written. No words are misused or unnecessary. All information is accurate and up to date.	All sentences are grammatically correct and clearly written. An occasional word is misused or unnecessary.  Information is accurate and up to date.	A few sentences are grammatically incorrect or not clearly written.  Several words are misused. Information is inaccurate and not upto-date.	Assignment has numerous grammatical errors. Many words are misused. Information is inaccurate and not up to date.

# **Appendix C: General Education Curriculum Map**

CVCC Ge	eneral Education Students Wi	ill:				
	1. Written Communication is the ability to develop, convey, and exchange ideas in writing, as appropriate to a given context and audience. Degree graduates will express themselves effectively in a variety of written forms.	2. Critical Thinking is the ability to use information, ideas, and arguments from relevant perspectives to make sense of complex issues and solve problems. Degree graduates will locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions.	3. Professional Readiness is the ability to work well with others and display situationally and culturally appropriate demeanor and behavior. Degree graduates will demonstrate skills important for successful transition into the workplace and pursuit of further education.	4. Civic Engagement is the ability to contribute to the civic life and well-being of local, national, and global communities as both a social responsibility and a life-long learning process.  Degree graduates will demonstrate the knowledge and civic values necessary to become informed and contributing participants in a democratic society.	5. Quantitative Literacy is the ability to perform accurate calculations, interpret quantitative information, apply and analyze relevant numerical data, and use results to support conclusions. Degree graduates will calculate, interpret, and use numerical and quantitative information in a variety of settings.	6. Scientific Literacy is the ability to apply the scientific method and related concepts and principles to make informed decisions and engage with issues related to the natural, physical, and social world. Degree graduates will recognize and know how to us the scientific method, and to evaluate empirical information.
ART 101	I, D, A, M	I, D, A, M				
BIO 101		I, M			D, M	A, M
BIO 102		D, M			D, M	A, M
CHM 111	D, M	D, M			A, M	A, M
CHM 112	D, M	D, M			A, M	A, M
CHM 241	D, M	D, M			A, M	A, M
CHM 242	D, M	D, M			A, M	A, M
CST 100	A, M	A, M	A	A, M		
ECO 201	A, M	A	A	A, M	D, A, M	A, M
ENG 111	D, M	D, M	I, M	I, M		
ENG 112	A, M	A, M	A, M	A, M		
ENG 241	A, M	A, M	A, M	A, M		
ENG 242	A, M	A, M	A, M	A, M		
HIS 121	A, M	A, M		A, M	A, M	

HIS 122	A, M	A, M		A, M	A, M	
ITE 115	I, M	A, M			D, M	
MTH 154	I	A			A, M	I
MTH 155	I	A	D		A, M	A
MTH 161	I	A			A, M	
MTH 162	I	A			A, M	
PLS 135	D, M	D, M	A	A, M	I, M	D, M
PLS 136	D, M	D, M			I, M	D, M
PSY 200	D, M	A, M	I		I, M	I, D, A, M
PSY 230	D, M	A, M			I, M	I, D, A, M
SDV 100	D, M	D, M	A	A		
SOC 200	D, M	D, M		D	D	I

# Curriculum Map Key

Introduced (I)	<ul> <li>Incoming students are not expected to be familiar with the outcomes at the collegiate level.</li> <li>Instruction and learning activities focus on introduction of knowledge, skills, and/or competencies and entry-level complexity.</li> <li>Only one or a few aspects of a complex outcome are addressed in the given course.</li> </ul>
Developed (D)	<ul> <li>Incoming students are expected to possess a basic level of outcomes knowledge and familiarity with the content or skills at the collegiate level.</li> <li>Instruction and learning activities concentrate on enhancing and strengthening knowledge, skills, and expanding complexity.</li> <li>Several aspects of the outcome are addressed in the given course, but these aspects are treated separately.</li> </ul>
Applied (A)	<ul> <li>Incoming students are expected to apply an advanced level of the outcome-related knowledge, skill, or competency at the collegiate level.</li> <li>Instructional and learning activities focus on the use of the content or skills in multiple contexts and at multiple levels of complexity.</li> <li>Given outcome is addressed in all of its complexity across multiple contexts.</li> </ul>
Measured (M)	<ul> <li>The extent to which students have achieved these outcomes is <i>measured</i> during the course and results are used to improve outcomes.</li> <li>M* - Measured and included in the program assessment.</li> </ul>