

Central Virginia Community College (CVCC)  
General Education Assessment Report  
2021-2022

# INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2021-22

## Central Virginia Community College

**PROGRAM:** **General Education – Civic Engagement**

**NAME OF PROGRAM COORDINATOR:** **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):**

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

**Definition:** 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.

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
<p><b>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.</b></p> <p><b>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.</b></p> <p><b>Present arguments, both for and against, regarding issues or events</b></p>	<p>1. Students enrolled in Principles of Macroeconomics (ECO 201) will complete written assignments that acquaint students to civic engagement challenges.</p> <p>2. Students enrolled in College Composition I and College Composition II (ENG 111/112) will complete a rubric graded writing assignment on a topic which pertains to civic engagement.</p> <p>3. A college wide annual voting and voting registration drive will be conducted for state and federal elections (with student participation).</p> <p>4. Students enrolled in Principles of Sociology (SOC 200) will prepare graded assignments on cultural and sub-cultural differences.</p>	<p>1. Seventy percent (70%) of students enrolled Principles of Macroeconomics (ECO 201) will correctly answer questions assigned in Civic Engagement related written exercises to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> <li>• Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels.</li> <li>• Identify forms of governance and leadership both nationally and globally.</li> </ul> <p>2. A random sample of students enrolled in College Composition I and College Composition II (ENG 111/112) will score, on average, two (minimal proficiency) or higher on the development, research/evidence, and</p>	<p>1. <b>Target met:</b> Seventy-three percent (73%) of students enrolled in Principles of Macroeconomic courses (ECO 201) scored a grade of seventy percent (70%) or higher on a Civic Engagement related essay assignment during the 2020-21 assessment cycle.</p> <p>2. <b>Target not met:</b> Fifty-five percent (55%) of a random sample (N=72) of students enrolled in College Composition I (ENG 111) scored a two (minimal proficiency) on a rubric graded writing assignment using the CVCC Written Communication rubric (Appendix A) in Fall 2021. The average score for the sample was 1.6.</p> <p>3. <b>Target met:</b> Per the 2022 NSLVE Campus Report, the percentage of students registered to vote increased to</p>	<p>1. Students in ECO 201 reviewed two newspaper articles related to current economic events and submitted a narrative that encompasses a synopsis of the issues. As a result, students acquired an increased social awareness of national economic issues.</p> <p>2. The English department conducted a department wide grade norming activity in Spring 2022 that included all adjunct and dual enrollment faculty. The department coordinator posted the CVCC Written Communication rubric (Appendix A) to the departmental canvas site and encouraged all faculty to use the CVCC Written Communication rubric in assignment design (Appendix A) and to disseminate that rubric to all students.</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
<p><b>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.</b></p>	<p>5. Students enrolled in English Literature Courses (ENG 241/242) 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.</p> <p>6.nThe 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.</p>	<p>reasoning categories of a rubric graded writing assignment using the CVCC Written Communication rubric (Appendix A) to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> <li>Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels.</li> <li>Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen</li> <li>Present arguments, both for and against regarding issues or events critical to participating as an informed citizen in a democratic society.</li> </ul> <p>3. Seventy percent (70%) of students enrolled in Principles of Sociology (SOC 200) will score seventy percent (70%) or better on graded Civic Engagement related presentations to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> <li>Formulate a plan to participate in government, community, and/or campus action.</li> <li>Evaluate the ethical implications of individual, community, and civic actions.</li> <li>Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen.</li> </ul> <p>4. On average, students enrolled in English Literature Courses (ENG 241/242) will score a grade of seventy percent (70%) or better on a Civic Engagement related essay assignment to measure the extent to which students can perform the following objectives:</p>	<p>eighty-two point five percent (82.5%) in the 2020 election year (an increase from seventy-one point three percent (71.3%) in 2018 and sixty-two percent (62.0%) in 2014). The overall percentage of voting rate increased to sixty-seven point nine percent (67.9%) in the 2020 election year (an increase from forty-one percent (41.0%) in 2018 and twenty-two pint seven percent (22.7%) in 2014). This exceeds the national student voting rate of sixty-six percent (66%) in the 2020 election year. The state voting rate is not available in the 2022 NSLVE Campus Report.</p> <p>4. <b>Target met:</b> Seventy-five percent (75%) of students enrolled in Principles of Sociology courses (SOC 200) completed the Paper #4 Assignment with a grade of seventy percent (70%) or higher during the 2021-22 assessment cycle.</p> <p>5. <b>Target met:</b> Eighty-four percent (84%) of students enrolled in English Literature courses (ENG 241/242) scored a grade of seventy percent (70%) or higher on a Civic Engagement related essay assignment during the 2021-22 assessment cycle.</p> <p>6. <b>Target met:</b> Eighty-nine percent (89%) of students enrolled in U.S. Government and Politics courses (PLS 135) and State and Local Government and Politics courses (PLS 136) scored a grade of seventy percent (70%) or higher in their first PLS course and ninety-three point two percent (93.2%) of students achieved a rubric-graded score of 70% or higher in their second PLS course.</p>	<p>3. Students in SOC 200 completed a project where they write about a personal experience they have had with social, racial, ethnic, gender, or age-related differentiation or stratification.</p> <p>4. English faculty met and conducted a survey of ENG 241/242 faculty to determine how to increase student success on essay assignments. The ENG department has opted to require one literary analysis essay in English 112 better to prepare students and improve their performance on the literary assessment essay.</p> <p>5. Students in PLS 135 were given time in class (if 18 or will be 18 before the next election) to register to vote. Students were encouraged to vote and reminded of the importance of involvement in the local community. Students in PLS 136 were given extra credit for attending a local board meeting (i.e. School Board, Board of Supervisors, City Council, Zoning/Planning Commission, etc.) upon completion of a short writing assignment summarizing the event and their perspective. As a result, students gained an increased ability to influence policy by voting and to see how policy is made at the local level.</p> <p>6. Students in the Respiratory Therapy program completed journal article reviews on current healthcare trends and presented their findings to the class. Following the article review presentation and discussion, students reported an increased understanding of civic engagement. Students volunteered a minimum of four hours</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<ul style="list-style-type: none"> <li>• Describe how diverse opinions, values, perspectives, and life experiences shape and characterize a society or community.</li> <li>• Identify civic, social, environmental, historical., or economic challenges at local, national, or global levels.</li> <li>• Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen.</li> </ul> <p>5. Students enrolled in PLS 135 (the U.S. Government and Politics) and PLS 136 (State and Local Government and Politics) will complete a rubric graded APA or CMS research essay measuring their ability to:</p> <ul style="list-style-type: none"> <li>• Conduct academic research on controversial topics affecting American national (PLS 135) or State and Local (PLS 136) politics.</li> <li>• Describe how diverse opinions, values, perspectives, and life experiences shape and characterize political perspectives.</li> <li>• Propose an equitable resolution to the issue.</li> </ul> <p>6. Seventy percent (70%) of students will score a grade of seventy percent (70%) or higher in their first PLS course, with improvement expected (eighty percent (80%) of students will achieve a rubric-graded score of seventy percent (70%) or higher) in their second PLS course. It is anticipated that cooperation among the departments will lead to improvement in student performance over time.</p>		<p>per semester at a location of their choice. Understanding the purpose of giving back to the community, students reported an increased understanding of civic action. Students presented a well-researched current trend/future trend in healthcare followed by a classroom discussion. Understanding the purpose of understanding current and future healthcare advances, students reported an increased understanding of civic engagement. Students provided respiratory care to patients in the hospital, and each student presented one patient case study per semester. Following completion of hospital clinical and patient case study, students reported an increased understanding of civic commitment.</p> <p>7. Students in CST100 completed a group project creating a company that either offers a service or sells a product to the public. Students chose how much their product/service costs, what it does, and created either a video commercial or billboard advertising their product. As a result, students learned how to work in a group setting, research a target audience, and learn marketing strategies.</p> <p>8. Students in Logic Circuits and Systems (ETR 167) provided examples of logical fallacies in the news to share during class discussions. As a result, students learned to recognize when news and social media are attempting to manipulate the opinions or actions of media consumers.</p>

**SUMMARY CONCLUSIONS:** As a public institution in Virginia and a member of the State Council of Higher Education in Virginia (SCHEV), Civic Engagement is one of the areas supported with professional development and networking opportunities for employees and students. In June 2022 there was a Day of Dialogue at James Madison University followed by a spotlight series that focused on institutional approaches to teaching and assessing civic engagement. Faculty champions IE representatives attended these sessions and returned to campus to share what they learned. The dialogue continues as faculty consider assignments across disciplines that encourage civil discourse and social responsibility.

**INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:**

**DATE COMPLETED: 1/23/2023**

# INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2021-22

## Central Virginia Community College

**PROGRAM:** **General Education – Critical Thinking**

**NAME OF PROGRAM COORDINATOR:** **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

**Definition:** 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.

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings				Use of Results to Improve Outcomes		
<b>Identify and evaluate relevant and diverse points of view. Identify logical fallacies, propaganda techniques, opinions, stereotypes, and assumptions. Identify conclusions based on empirical evidence.</b>  <b>Evaluate source materials for rigor, validity, and authenticity.</b>	1. Students enrolled in U.S. History I-II (HIS 121/122) will complete multiple-choice critical thinking questions on an exam.  2. 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.	1. Seventy percent (70%) of students enrolled in U.S. History I-II (HIS 121/122) will correctly answer critical thinking questions on an exam to measure the extent to which students can perform the following objective: • Identify and evaluate relevant and diverse points of view, identify logical fallacies, propaganda techniques, opinions,	<b>1. Target met:</b> Eighty-six percent (86%) of students enrolled in U.S. History I (HIS 121/122) correctly answered critical thinking questions on the HIS 121 Common Assessment in Fall 2021.				1. Students enrolled in U.S. History I – II (HIS 121/122) completed at least two critical thinking exercises during each semester. The results of the exercises and the critical thinking scores on the common assessment were analyzed to determine what further action steps should be taken.  2. Students in ECO 201 calculated, analyzed, and		
			<b>2. Target met:</b> Students in the 2021-22 graduation cohort achieved a mean of 110.07 on the Critical Thinking scaled score of the ETS Proficiency Profile, as compared to a national norm of 109.4.						
			Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area		Proficiency Level	Type of Content
			41.20%	41.30%	-0.10%	Critical Thinking		III	Determine relevance of information
			40.30%	44.10%	-3.80%	Critical Thinking		III	Discern purpose of a reference
			40.20%	43.80%	-3.60%	Critical Thinking		III	Evaluate an argument
			40.20%	45.60%	-5.40%	Critical Thinking		III	Evaluate data for consistency
59.70%	62%	-2.30%	Critical Thinking	III	Evaluate hypotheses				
36.30%	36.90%	-0.60%	Critical Thinking	III	Recognize a valid inference				

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings				Use of Results to Improve Outcomes		
<p><b>Use sources to develop rigorous arguments and analyze problems. Use deductive and inductive reasoning to draw conclusions based on data.</b></p>	<p>3. Students enrolled in 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.</p> <p>4. Students enrolled in College Composition I and College Composition II (ENG 111/112) complete a rubric graded writing assignment each term.</p> <p>5. Students enrolled in U.S. History I/II (HIS 101/102) will complete a rubric graded written response to an essay question each term.</p> <p>6. Students enrolled in General Biology I and II (Bio 101-102) complete common summative assessment tools (one per course) that require base knowledge, reading comprehension, and critical thinking.</p>	<p>stereotypes, and assumptions and identify conclusions based on empirical evidence.</p> <p>2. Students graduating with an Associate degree will score on average above the national norm on the Critical Thinking scaled score of the ETS Proficiency Profile to measure the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p>3. Seventy percent (70%) of students enrolled in Principles of Macroeconomics (ECO 201) will score a grade of seventy percent (70%) or better on a rubric graded writing assignment that requires reviewing an article to measure the</p>	58.40%	59.80%	-1.40%	Critical Thinking	III	Recognize an assumption	<p>interpreted national economic statistics. As a result, students were able to draw relevant conclusions about the current status (economic health) of the nation.</p> <p>3. The ENG department conducted a department wide grade norming activity in Spring 2022 that included all adjunct and dual enrollment faculty. The department coordinator posted the CVCC Written Communication rubric (Appendix A) to the departmental canvas site and encouraged all faculty to use the CVCC Written Communication rubric in assignment design (Appendix A) and to disseminate that rubric to all students.</p> <p>4. The addition of the longer lab report and a lab devoted to critical thinking did not substantially affect scores on our assessment tools the next academic year, though we did see an increase to 87.8% of students in BIO 101</p>
			<p><b>3. Target met:</b> Seventy-three percent (73%) of students enrolled in Principles of Macroeconomic courses (ECO 201) scored a grade of seventy percent (70%) or higher on a on a rubric graded writing assignment that requires reviewing an article during the 2020-21 assessment cycle.</p>						
			<p><b>4. Target not met:</b> Fifty-five percent (55%) of a random sample (N=72) of students enrolled in College Composition I (ENG 111) scored a two (minimal proficiency) on a rubric graded writing assignment using the CVCC Written Communication rubric (<b>Appendix A</b>) in Fall 2021. The average score for the sample was 1.66.</p>						
			<p><b>5. Target met:</b> Ninety-five percent (95%) of students enrolled in History I (HIS 121) correctly completed the written communication portion of the HIS 121 Common Assessment in Fall 2021.</p>						
			<p><b>6. Target met:</b> Eighty-six percent (86%) of students enrolled in General Biology I and II (BIO 101-102) correctly answered critical thinking questions during the 2021-22 assessment cycle.</p>						

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<p>extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>• Evaluate source materials for rigor, validity, and authenticity</li> </ul> <p>4. A random sample of students enrolled in College Composition I and College Composition II (ENG 111/112) will score, on average, two (minimal proficiency) or higher on the development, research/evidence, and reasoning categories of a rubric graded writing assignment using the CVCC Written Communication rubric (Appendix A) to measure the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>• Identify and evaluate relevant and diverse points of view.</li> <li>• Identify logical fallacies, propaganda techniques, opinions, stereotypes, and assumptions.</li> <li>• Evaluate source materials for rigor,</li> </ul>		<p>correctly answering critical thinking questions.</p> <p>5. Students in PLS 135 wrote a research essay identifying a national problem that had a personal impact on the student. The assignment required the student to make an argument and take a position on a specific policy. As a result, students reinforced their critical thinking skills and learned to use logic and evidence to back up claims on their respective position.</p> <p>6. Students in BUS 241 were required to recognize the fundamentals of business law in “legal terms”, take a situation presented in an interactive assignment (case study or video presentation), and make a legal judgement. Students averaged a score of 86% on this case study assignment, demonstrating high critical thinking skill use.</p>



General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<p>validity, and authenticity.</p> <ul style="list-style-type: none"> <li>• Use sources to develop rigorous arguments and analyze problems.</li> </ul> <p>5. Seventy percent (70%) of students enrolled in History I &amp; 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 can perform the following objective:</p> <ul style="list-style-type: none"> <li>• Use sources to develop rigorous arguments and analyze problems.</li> <li>• Use deductive and inductive reasoning to draw conclusions based on data.</li> </ul> <p>6. Seventy percent (70%) of students enrolled in General Biology I and II (BIO 101-102) will answer questions correctly</p>		<p>7. Students in RAD 190 demonstrated the ability to recognize quality radiographic images and suggest corrections as needed. On the class of 2022 C spine exam, all students were able to determine the need for corrections better than looking at an image and assessing it without having performed the exam.</p> <p>8. Students in Mechatronics (MED 140) successfully roleplayed as engineers in a research facility and engaged in other critical thinking tasks including product suitability, and analysis of failure modes.</p> <p>9. Students enrolled in Lifespan Development (PSY 230) courses completed a rubric graded assignment that involves application of research on Early Childhood Education Centers. Students researched and summarized results of investigations of local centers, applying information from the</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		that address the following objectives: <ul style="list-style-type: none"> <li>• Evaluate source materials for rigor, validity, and authenticity.</li> <li>• Use deductive and inductive reasoning to draw conclusions based on the data.</li> </ul>		article to determine appropriateness of local centers.  10. Students enrolled in Principles of Psychology (PSY 200) completed a rubric graded infographic assignment that examined a myth in psychology. As a result of the assignment, students have an increased awareness of the need to critically evaluate common misinformation in society.

**SUMMARY CONCLUSIONS:** – Returning to in-person instruction during the COVID-19 pandemic provided additional opportunities for professional development that focused on pedagogical changes that align with additional critical thinking exercises and activities. The Opportunity 2027 Strategic Plan specifically identifies teaching and learning strategies to support the overall goals for student success, with a focus on equity. These identified and targeted strategies will encourage further discussion and enhancements to instruction to support students in doing the research and drawing informed conclusions for problem-solving and for addressing complex issues.

**INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS: N/A**

**DATE COMPLETED: 1/23/2023**

# INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2021-22

## Central Virginia Community College

**PROGRAM:** **General Education – Professional Readiness**

**NAME OF PROGRAM COORDINATOR:** **Kimberly French (frenchk@centralvirginia.edu);  
Sheila Layne (laynes@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

**Definition:** 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.

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
<p><b>Recognize appropriate workplace and classroom habits, demeanor, and behavior. Identify the qualities of an ethical decision.</b></p> <p><b>Collaborate with others on a task to achieve a common goal. Cultivate skills to communicate effectively and professionally.</b></p> <p><b>Set goals, and implement a plan for personal, professional, and/or academic achievement.</b></p>	<p>1. 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.</p> <p>2. 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 support the claim, and demonstrate components of argumentation to attempt to convince their audience of their claims.</p>	<p>1. Seventy percent (70%) of students enrolled in College Success Skills (SDV 100) will correctly respond to questions in a Communication Styles assignment to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> <li>• Recognize appropriate workplace and classroom habits, demeanor, and behavior.</li> <li>• Identify the qualities of an ethical decision.</li> </ul> <p>2. Seventy percent (70%) of students enrolled in Principles of Public Speaking (CST 100) will score seventy percent (70%) or better on a persuasive public speaking assignment to measure</p>	<p>1. <b>Target met:</b> Eighty-eight point five (88.5%) of students enrolled in College Success (SDV 100) correctly responded to professional readiness questions in a Communication Style assignment.</p> <p>2. <b>Target met:</b> Ninety-seven point six percent (97.6%) of students enrolled in Principles of Public Speaking (CST 100) scored seventy percent (70%) or better on a persuasive public speaking assignment during the 2021-22 assessment cycle.</p> <p>3. <b>Target not met:</b> Seventy-six percent (76%) of first-time in college, program placed students completed the Program Planner using Navigate</p>	<p>1. SDV Instructors met to discuss how to improve the required completion of the program planner in their courses. All SDV instructors will participate in the required training on the new feature of the Navigate Planner, as well as implementing plans to continue utilizing professional readiness in the course.</p> <p>2. Students in CST100 participated in demonstrations and presented informative speeches. As a result, students increased their understanding of the skills needed to demonstrate how to perform a process as a trainer, gather information, and properly present to an audience.</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
	<p>3. 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.</p>	<p>the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>• Collaborate with others on a task to achieve a common goal.</li> <li>• Cultivate skills to communicate effectively and professionally.</li> </ul> <p>3. Eighty percent (80%) of first time in college, program placed students will complete the Program Planner Student Survey using Navigate technology each fall to measure the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>• Set goals, and implement a plan for personal, professional, and/or academic achievement.</li> </ul>	<p>technology for fall 2021 and spring 2022.</p>	<p>3. Students in the Respiratory Therapy program presented multiple oral presentations during the five semesters in the program. Students communicated with patients and healthcare professionals while in clinical settings, and students practiced job interview skills with instructors. As a result, students understand the importance of oral presentations of future career readiness and job interview skills.</p> <p>4. Students in AST 205 critiqued oral and written communication in course exercises. These can include proofreading a business letter, making comments on oral communication, and designing a layout for a job interview. As a result, students better understand the importance of written and oral communication styles in business and industry.</p> <p>5. Students in PLS 136 were encouraged to attend a local county/city public meeting. Students who participated increased their understanding of the importance of local meetings and personal involvement. Students who spoke before the board were able to see firsthand the relevance of public speaking skills and professional dress.</p> <p>6. Students in RAD 215 completed the program exam preparation and review course. As a result, all students in the class of 2022 passed their ARRT credentialing examination which enables them to begin work.</p> <p>7. Students in Advanced Circuits and New Devices (ETS 214) prepared a 10-</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
				minute visual and oral presentation at the end of the semester on the cutting-edge technology they researched over the course of the semester. As a result, students gain confidence, poise, and professional presence when speaking in formal situations to an audience of superiors.

**SUMMARY CONCLUSIONS:** These “soft skills” are consistently discussed when identifying expectations and qualities of program graduates. Many of our applied degree programs incorporate activities that are designed to enhance communication skills in person and in writing. Most associate degree graduates are required to take a course in public speaking. Returning from a primarily virtual environment after COVID-19 has provided an opportunity to better understand the impact that had on students. The isolation and virtual interactions for an extended period of time have led to challenges including mental health issues. As we work to restore confidence in our students, these exercises and activities will encourage positive progress.

**INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:**

**DATE COMPLETED: 1/23/2023**

# INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2021-22

## Central Virginia Community College

**PROGRAM:** **General Education – Quantitative Literacy**

**NAME OF PROGRAM COORDINATOR:** **Kathy Thomas (thomask@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 Learning
- 2. Student Supports
- 3. Workforce Credentials
- 4. Affordability

**Definition:** 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.

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes																																																
<b>Distinguish between quantitative and qualitative analysis. Identify numerical information presented in relevant equations, graphs, diagrams, tables, and words.</b>	1. 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.	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 can perform the following objectives: <ul style="list-style-type: none"> <li>• Distinguish between</li> </ul>	<p><b>1. Target met:</b> Students in the 2021-22 graduation cohort achieved a mean of 112 on the mathematics scaled score of the ETS Proficiency Profile, as compared to a national norm of 111.4.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Percent (%) Correct CVCC</th> <th>Percent (%) Correct National</th> <th>Difference</th> <th>Skill Area</th> <th>Proficiency Level</th> <th>Type of Content</th> </tr> </thead> <tbody> <tr style="background-color: yellow;"> <td>59.6%</td> <td>63.5%</td> <td>-3.9%</td> <td>Mathematics</td> <td>I</td> <td>Algebraic expression</td> </tr> <tr style="background-color: yellow;"> <td>21.6%</td> <td>27.8%</td> <td>-6.2%</td> <td>Mathematics</td> <td>II</td> <td>Algebraic manipulation - ratio and proportion</td> </tr> <tr style="background-color: yellow;"> <td>62.8%</td> <td>64.9%</td> <td>-2.1%</td> <td>Mathematics</td> <td>II</td> <td>Algebraic word problem - system of equations</td> </tr> <tr style="background-color: yellow;"> <td>69.9%</td> <td>63.2%</td> <td>6.7%</td> <td>Mathematics</td> <td>I</td> <td>Apply formula</td> </tr> <tr style="background-color: yellow;"> <td>64.0%</td> <td>72.3%</td> <td>-8.3%</td> <td>Mathematics</td> <td>II</td> <td>Arithmetic word problem - ratio and proportion</td> </tr> <tr style="background-color: yellow;"> <td>42.5%</td> <td>43.1%</td> <td>-0.6%</td> <td>Mathematics</td> <td>II</td> <td>Arithmetic word problem - units of measurement</td> </tr> <tr style="background-color: yellow;"> <td>87.4%</td> <td>92.2%</td> <td>-4.8%</td> <td>Mathematics</td> <td>I</td> <td>Arithmetic word problem - work units</td> </tr> </tbody> </table>	Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content	59.6%	63.5%	-3.9%	Mathematics	I	Algebraic expression	21.6%	27.8%	-6.2%	Mathematics	II	Algebraic manipulation - ratio and proportion	62.8%	64.9%	-2.1%	Mathematics	II	Algebraic word problem - system of equations	69.9%	63.2%	6.7%	Mathematics	I	Apply formula	64.0%	72.3%	-8.3%	Mathematics	II	Arithmetic word problem - ratio and proportion	42.5%	43.1%	-0.6%	Mathematics	II	Arithmetic word problem - units of measurement	87.4%	92.2%	-4.8%	Mathematics	I	Arithmetic word problem - work units	1. Students enrolled in U.S. history courses completed at least one quantitative data exercise during each semester. The results of the exercises and on the common assessment have been and will continue to be analyzed.  2. The math department has worked together to create common
Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content																																															
59.6%	63.5%	-3.9%	Mathematics	I	Algebraic expression																																															
21.6%	27.8%	-6.2%	Mathematics	II	Algebraic manipulation - ratio and proportion																																															
62.8%	64.9%	-2.1%	Mathematics	II	Algebraic word problem - system of equations																																															
69.9%	63.2%	6.7%	Mathematics	I	Apply formula																																															
64.0%	72.3%	-8.3%	Mathematics	II	Arithmetic word problem - ratio and proportion																																															
42.5%	43.1%	-0.6%	Mathematics	II	Arithmetic word problem - units of measurement																																															
87.4%	92.2%	-4.8%	Mathematics	I	Arithmetic word problem - work units																																															

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings						Use of Results to Improve Outcomes		
<p><b>Interpret quantitative information to draw relevant conclusions. Evaluate numerical information for usefulness, accuracy, and significance.</b></p> <p><b>Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</b></p>	<p>2. Students enrolled in U.S. History I-II (HIS 121/122) will correctly respond to open-ended Quantitative Literacy questions on an exam each semester.</p>	<p>quantitative and qualitative analysis.</p> <ul style="list-style-type: none"> <li>Identify numerical information presented in relevant equations, graphs, diagrams, tables, and words.</li> </ul> <p>2. Seventy percent (70%) of students enrolled in U.S. History I-II (HIS 121/122) will correctly answer Quantitative Literacy questions on an exam to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> <li>Interpret quantitative information to draw relevant conclusions.</li> <li>Evaluate numerical information for usefulness, accuracy, and significance.</li> </ul> <p>3. Seventy percent (70%) of students enrolled in Pre-Calculus I (MTH 161) will correctly answer Quantitative Literacy</p>	64.8%	69.5%	-4.7%	Mathematics	I	Data interpretation - find information	<p>assessments to demonstrate the strengthening of skills in solving word problems related to compound and continuous interest in finance and word problems related to systems of equations from real life applications and constraints.</p> <p>3. The quantitative reasoning assessments for Fall 21 and Spring 22 saw fewer students achieving satisfactory scores. 82.65% of students earned above a 70% on the labs focusing on calculations and graphing. While there was a reduction, the target for that year will still be met. Looking at data from previous years, an average of 82.65% is not an outlier and is likely just normal variation from year to year.</p> <p>4. Students in CHM 111 and 112 completed assignments heavily weighted on</p>		
	<p>3. Students enrolled in Pre-Calculus I (MTH 161) will complete a graded final exam that requires calculating and conveying information as part of Quantitative Literacy.</p>		8.4%	7.6%	0.8%	Mathematics	III	Data interpretation - percent change			
	<p>4. Students enrolled in General Biology I-II (BIO 101/102) will correctly complete lab assignments that require presenting data in tables and graphs.</p>		74.7%	76.8%	-2.1%	Mathematics	I	Data interpretation - read information			
			54.9%	51.6%	3.3%	Mathematics	II	Draw conclusion from algebraic equations			
			25.9%	25.0%	0.9%	Mathematics	III	Exponential function			
			67.6%	70.0%	-2.4%	Mathematics	III	Exponential functions			
			70.6%	71.2%	-0.6%	Mathematics	I	Interpret a trend represented in a graph			
			66.3%	60.7%	5.6%	Mathematics	I	Negative and positive integers - average			
			78.0%	76.1%	1.9%	Mathematics	I	Number line			
			14.7%	17.2%	-2.5%	Mathematics	II	Number line - algebraic manipulation			
			21.1%	19.7%	1.4%	Mathematics	III	Percent change - ratio and proportion			
			66.1%	64.6%	1.5%	Mathematics	II	Problems involving sets - properties of numbers			
			73.4%	67.7%	5.7%	Mathematics	III	Solve problems involving inequalities			
			62.1%	57.4%	4.7%	Mathematics	II	Translation to algebraic expression			
			29.7%	44.4%	-14.7%	Mathematics	III	Word problem - algebraic equation			
			6.3%	8.7%	-2.4%	Mathematics	III	Word problem - algebraic expression			
			22.0%	15.5%	6.5%	Mathematics	III	Word problem - logarithmic function			
			19.8%	26.3%	-6.5%	Mathematics	III	Word problem - sampling			
			<p><b>2. Target met:</b> Ninety-six percent (96%) of students enrolled in U.S. History I (HIS 121) correctly answered quantitative literacy questions on the HIS 121 Common Assessment in Fall 2021.</p>								
			<p><b>3. Target not met:</b> Sixty-three percent (63%) of students enrolled in Pre-Calculus I (MTH 161) correctly answered Quantitative Literacy questions on a comprehensive final exam.</p>								
	<p><b>4. Target met:</b> Ninety percent (90%) of students enrolled in General Biology I-II (BIO 101/102) correctly completed the Quantitative Literacy portion of graded lab assignments during the 2021-22 assessment cycle.</p>										
	<p><b>5. Target met:</b> Ninety-seven percent (97%) of students in General Chemistry I and General Chemistry II (CHM 111 – 112) correctly completed the Quantitative Literacy portion of graded lab assignments during the 2021-22 assessment cycle.</p>										

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
	<p>5. Students enrolled in General Chemistry I and General Chemistry II (CHM 111 – 112) will correctly complete a Quantitative Literacy portion of graded lab assignments.</p>	<p>questions on a comprehensive final exam to measure the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>• Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</li> </ul> <p>4. Seventy percent (70%) of students enrolled in General Biology I-II (BIO 101/102) will correctly complete a Quantitative Literacy portion of graded lab assignments to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> <li>• Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</li> </ul> <p>5. Seventy percent (70%) of students in General Chemistry I and General Chemistry II (CHM 111 – 112) will correctly complete a</p>		<p>quantitative word problems. Students used CENGAGE as a guide for quantitative thinking. As a result, students increased their familiarity navigating quantitative word problems. Students in CHM 111 and 112 engaged with logic-based questions on lab assignments and exams. As a result, students increased their dexterity in applying logic when calculating solutions.</p> <p>5. Students in BUS 100 reviewed raw data from financial statements and budgets and came up with ratio analysis showing if a loan should be approved for expansion or capital improvement. As a result, students were able to take data from financial reports and apply this to a logical issue.</p> <p>6. Students in PLS 135 completed a research paper on a national issue. As a result, they increased</p>



General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		Quantitative Literacy portion of graded lab assignments to measure the extent to which students can perform the following objectives: <ul style="list-style-type: none"> <li>• Use stoichiometric calculations to convert mass - mole; mole number of particles; molarity - mass; volume - mass from balanced chemical equations</li> </ul>		<p>their familiarity with data interpretation and the application of statistics.</p> <p>7. Students in RAD 112 completed a semester long technical factor selection project and radiation safety project. As a result, students learned the concepts necessary to make technical selections on exposure to patients while at clinical and on the job.</p> <p>8. Students in DC/AC Fundamentals I and II (ETR 113/114) practiced converting word problems into electrical schematics and performing multi-level mathematical circuit analysis. As a result, students demonstrate improved performance during labs and on assessments of learning throughout the semester.</p>

**SUMMARY CONCLUSIONS:** Opportunities to reinforce quantitative literacy concepts exist across all educational programs. The foundational skills required to successfully demonstrate achievement of college-level math is an ongoing concern, especially following a period of learning loss from the COVID-19 pandemic. One of CVCC's institutional priorities is to promote student success in gateway mathematics. That topic has now been identified for the college's Quality Enhancement Plan. Within institutional planning processes, research-based strategies will be identified and implemented to promote further success in quantitative literacy student learning outcomes.

**INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:**

**DATE COMPLETED: 1/23/2023**

# INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2021-22

## Central Virginia Community College

**PROGRAM:** [General Education – Scientific Literacy](#)

**NAME OF PROGRAM COORDINATOR:** [Shannon McDermott](#)  
([mcdermotts@centralvirginia.edu](mailto: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

**Definition:** 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.

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes																		
<p><b>Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.</b></p> <p><b>Design an experiment to test a hypothesis.</b></p>	<p>1. 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.</p> <p>2. Students enrolled in General Biology I-II (BIO 101/102) will answer questions in a common summative assessment that requires identifying</p>	<p>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 can perform the following objectives:</p> <ul style="list-style-type: none"> <li>• Identify the components of scientific inquiry (observation, hypothesis,</li> </ul>	<p><b>1. Target met:</b> Students in the 2021-22 graduation cohort achieved a mean of 113.77 on the Natural Sciences scaled score of the ETS Proficiency Profile, as compared to a national norm of 113.1.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>Possible Range</th> <th>National* Mean Score</th> <th>Mean Score</th> <th>95% Confidence Limits** for Mean</th> <th>Standard Deviation</th> <th>25th Percentile</th> <th>50th Percentile</th> <th>75th Percentile</th> </tr> </thead> <tbody> <tr> <td><b>Natural Sciences</b></td> <td>100 to 130</td> <td>113.1</td> <td>113.77</td> <td>113 to 115</td> <td>6.53</td> <td>107</td> <td>113</td> <td>119</td> </tr> </tbody> </table> <p><b>2. Target met:</b> Eighty percent (80%) of the students enrolled in General Biology I and II (BIO 101/102) correctly answered Scientific Literacy questions on the end-of-course examination during the 2021-22 assessment cycle.</p> <p><b>3. Target met:</b> Seventy-two percent (72%) of students enrolled in General Chemistry I and II (CHM 111/112) correctly completed Scientific Literacy assignments during the 2021-22 assessment cycle.</p>		Possible Range	National* Mean Score	Mean Score	95% Confidence Limits** for Mean	Standard Deviation	25th Percentile	50th Percentile	75th Percentile	<b>Natural Sciences</b>	100 to 130	113.1	113.77	113 to 115	6.53	107	113	119	<p>1. Online labs for BIO 102 were revised to include experimental design and performance.</p> <p>2. The summative scores for Fall '21 and Spring '22 saw fewer BIO 101-102 students (75%) achieving satisfactory scores. While there was a reduction, the target for that year will still be met. Satisfactory completion of the formative</p>
	Possible Range	National* Mean Score	Mean Score	95% Confidence Limits** for Mean	Standard Deviation	25th Percentile	50th Percentile	75th Percentile														
<b>Natural Sciences</b>	100 to 130	113.1	113.77	113 to 115	6.53	107	113	119														

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
<p><b>Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings.</b></p>	<p>components of scientific inquiry.</p> <p>3. 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.</p> <p>4. Students enrolled in General Biology I-II (BIO 101/102) will correctly complete formative assignments that require designing an experiment to test a hypothesis.</p> <p>5. Students enrolled in in General Biology I-II (BIO 101/102) will complete formative assignments that require them to conduct and experiment to test a hypothesis, analyze the results, and communicate the findings.</p>	<p>independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.</p> <p>2. Seventy percent (70%) of the students enrolled in General Biology I and II (BIO 101/102) will complete the formative Scientific Literacy assessment assignments satisfactorily to measure the extent to which students perform the following objective:</p> <ul style="list-style-type: none"> <li>• Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.</li> </ul> <p>3. Seventy percent (70%) of students enrolled in General Chemistry I and II (CHM 111/112) will correctly complete assignments that</p>	<p><b>4. Target met:</b> Seventy-nine percent (79%) of the students enrolled in General Biology I (BIO 101) completed the formative Scientific Literacy assessment assignments satisfactorily during the 2021-22 assessment cycle. BIO 102 was not assessed because CVCC was still primarily online and no online assignments for this course met this learning objective.</p> <p><b>5. Target met:</b> Seventy-nine percent (79%) of students enrolled in General Biology I (BIO 101) correctly completed the formative Scientific Literacy assignments during the 2021-22 assessment cycle. BIO 102 was not assessed because CVCC was still primarily online and no online assignments for this course met this learning objective.</p>	<p>assessments increased to 91% for experimental design and 92% for experiment conduction and analysis.</p> <p>3. Students in Chemistry 111 and 112 engaged in the scientific method by writing lab reports where they use proper scientific-analytical writing. This work supported students' understanding of key concepts and principles of chemistry and their capacity for scientific reasoning.</p> <p>4. Students in the Respiratory Therapy program completed required lab competencies each semester following in-class discussions and demonstrations. After successfully completing required lab competencies each semester, students successfully completed competencies in the clinical setting. As a result, students demonstrated improved understanding of the scientific method and</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<p>measure the extent to which students perform the following objective:</p> <ul style="list-style-type: none"> <li>Practice the mechanism of science when performing laboratory experiments.</li> </ul> <p>4. Seventy percent (70%) of the students enrolled in General Biology I and II (BIO 101 and 102) will complete formative Scientific Literacy assessment assignments satisfactorily to measure the extent to which students perform the following objective:</p> <ul style="list-style-type: none"> <li>Design an experiment to test a hypothesis.</li> </ul> <p>5. Seventy percent (70%) of students enrolled in General Biology I-II (BIO 101/102) will complete formative Scientific Literacy assessment assignments satisfactorily to measure the extent to which students perform the following objective:</p>		<p>general scientific skills.</p> <p>5. Students in ECO 201 engaged in inductive and deductive reasoning, identification and application of appropriate economic models and drew conclusions under certain sets of assumptions. As a result, students increased their understanding of the scientific method.</p> <p>6. Students in PLS 135 learned about the Enlightenment and U.S. Constitution through lectures, readings, seminars, and videos. As a result, they increased their understanding of how the Founding Fathers applied the scientific method to politics and society.</p> <p>7. Students in RAD 111 completed a series of lab experiments and complete lab reports on the working of and QA of x ray equipment. As a result, students improved their</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<ul style="list-style-type: none"> <li>Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings.</li> </ul>		<p>understanding of the scientific method and testing a hypothesis.</p> <p>8. Students enrolled in Lifespan Development (PSY 230) worked together in groups to explore the scientific method by identifying a topic in human development and describe the complete process for investigating that topic. The exercise served to identify areas where students are struggling to understand components of the scientific method so that additional instruction in those areas could be provided.</p> <p>9. Students enrolled in Principles of Psychology (PSY 200) worked together in groups to explore the scientific method by identifying an “old wife’s tale” and describing the complete process for investigating that topic. The exercise served to identify areas where students are struggling to understand</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
				components of the scientific method so that additional instruction in those areas could be provided.

**SUMMARY CONCLUSIONS:** With a return to some in-person instruction, the college reopened and revisited instructional opportunities. One addition to the science program was an Anatomage table which allow safe, virtual dissection opportunities for students. Enhancements like these provide additional opportunities for active learning. Outside of the sciences, the social sciences also provided opportunities to apply the scientific method. As we continue discussions and professional development to adapt to a virtual and hybrid environment, additional resources will be considered to expand the innovative teaching and learning opportunities.

**INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:** N/A

**DATE COMPLETED:** 1/23/2023

# INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2021-22

## Central Virginia Community College

**PROGRAM:** [General Education – Written Communication](#)

**NAME OF PROGRAM COORDINATOR:** [Charles Poff \(poffc@centralvirginia.edu\)](mailto: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):**

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

**Definition:** 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.

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes																																										
<p><b>Identify key components of sentence and paragraph structure. Discern the purpose and context of a variety of written communications and their intended audience.</b></p> <p><b>Construct sentences, paragraphs, essays, and documents with clear, concise, and appropriate language according to conventional</b></p>	<p>1. Students graduating with an Associate degree are administered the ETS Proficiency Profile in Writing at the end of each semester as a graduation requirement.</p> <p>2. Students enrolled in U.S. History I/II (HIS 101/102) will complete a rubric graded written response to an</p>	<p>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 can perform the following objectives:</p> <ul style="list-style-type: none"> <li>• Identify key components of sentence and paragraph structure.</li> <li>• Discern the purpose and context of a variety of written communications and their intended audience.</li> </ul>	<p><b>1. Target met:</b> Students in the 2021-22 graduation cohort achieved a mean of 112.82 on the Writing scaled score of the ETS Proficiency Profile, as compared to a national norm of 112.1.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Percent (%) Correct CVCC</th> <th>Percent (%) Correct National</th> <th>Difference</th> <th>Skill Area</th> <th>Proficiency Level</th> <th>Type of Content</th> </tr> </thead> <tbody> <tr> <td>84.6%</td> <td>84.1%</td> <td>0.5%</td> <td>Writing</td> <td>I</td> <td>Appropriate connector</td> </tr> <tr> <td>45.9%</td> <td>41.2%</td> <td>4.7%</td> <td>Writing</td> <td>I</td> <td>Order sentences in a paragraph</td> </tr> <tr> <td>75.9%</td> <td>75.6%</td> <td>0.3%</td> <td>Writing</td> <td>II</td> <td>Recast an existing sentence</td> </tr> <tr style="background-color: yellow;"> <td>74.1%</td> <td>79.0%</td> <td>-4.9%</td> <td>Writing</td> <td>I</td> <td>Recognize agreement</td> </tr> <tr style="background-color: yellow;"> <td>40.9%</td> <td>51.2%</td> <td>-10.3%</td> <td>Writing</td> <td>II</td> <td>Recognize coordination</td> </tr> <tr> <td>53.0%</td> <td>52.5%</td> <td>0.5%</td> <td>Writing</td> <td>III</td> <td>Recognize correct construction</td> </tr> </tbody> </table>	Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content	84.6%	84.1%	0.5%	Writing	I	Appropriate connector	45.9%	41.2%	4.7%	Writing	I	Order sentences in a paragraph	75.9%	75.6%	0.3%	Writing	II	Recast an existing sentence	74.1%	79.0%	-4.9%	Writing	I	Recognize agreement	40.9%	51.2%	-10.3%	Writing	II	Recognize coordination	53.0%	52.5%	0.5%	Writing	III	Recognize correct construction	<p>1. Students in all History I and II completed at least two rubric graded assignments measuring the students' ability to write using clear concise language according to the conventional usage, grammar, and mechanics.</p> <p>2. The English department coordinator met with the office of institutional effectiveness to develop a plan to generate more disaggregated data to enable the department faculty to identify student shortcoming with greater specificity. The department is working to adjust the Written Communication Rubric to improve the accuracy of assessment measures and is also encouraging the use of the rubric by all instructors as they design writing assignments.</p>
Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content																																									
84.6%	84.1%	0.5%	Writing	I	Appropriate connector																																									
45.9%	41.2%	4.7%	Writing	I	Order sentences in a paragraph																																									
75.9%	75.6%	0.3%	Writing	II	Recast an existing sentence																																									
74.1%	79.0%	-4.9%	Writing	I	Recognize agreement																																									
40.9%	51.2%	-10.3%	Writing	II	Recognize coordination																																									
53.0%	52.5%	0.5%	Writing	III	Recognize correct construction																																									



General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings						Use of Results to Improve Outcomes		
<p><b>English usage, grammar, and mechanics.</b></p> <p><b>Use clear, appropriate, and relevant language to convey or support a main idea or hypothesis with evidence.</b></p>	<p>essay question each term.</p> <p>3. Students enrolled in College Composition I and College Composition II (ENG 111/112) complete a rubric graded writing assignment each term.</p>	<p>2. Seventy percent (70%) of students enrolled in History I &amp; II (HIS 121/122) will achieve 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 response CVCC History Writing Assignment Rubric (Appendix B) to measure the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>Construct sentences, paragraphs, essays, and documents with clear, concise, and appropriate language according to conventional English usage, grammar, and mechanics.</li> </ul> <p>3. Seventy percent (70%) of a random sample of students enrolled in College Composition I and College Composition II (ENG 111/112) will score two (minimal proficiency) or higher on the Organization, Style/Voice, and Sentence Structure categories of a rubric graded writing assignment using the</p>	52.9%	51.4%	1.5%	Writing	III	Recognize correct usage	<p>3. Students in Respiratory Therapy completed multiple writing assignments including a written case study, a research paper, and written reviews on medical journal articles. Students presented multiple written projects. As a result, students received formative feedback during the writing process and demonstrated increased written communication skills as they were assessed on the structure of the assignments.</p> <p>4. Students in CST 100 - Principles of Public Speaking completed working and speaking outlines using extemporaneous organizational patterns. As a result, students learned how to use complete sentences, punctuation, correct spelling, and grammar.</p> <p>5. Students in ECO 201 reviewed two newspaper articles, wrote a narrative for each article, and submitted a written response in Canvas discussion forums. Students improved their written communication skills and further understood how writing is an important part of the learning process.</p> <p>6. Students in AST 205 completed basic grammar quizzes showing accurate subject-very agreement in sentence structure. As a result, students increased their understanding of the basics of writing and grammar usage.</p> <p>7. Students in PLS 135 submitted written entries in daily discussion boards. As a result, students improved their written argument skills.</p> <p>8. Students in RAD 255 completed a semester long modality assignment in which they were required to write a topic paper on</p>		
			67.4%	65.4%	2.0%	Writing	I	Recognize grammatical correction			
			47.7%	44.3%	3.4%	Writing	III	Recognize inappropriate idiom			
			37.8%	35.7%	2.1%	Writing	III	Recognize inappropriate parallelism			
			33.0%	36.2%	-3.2%	Writing	I	Recognize incorrect adjective comparison			
			74.5%	77.6%	-3.1%	Writing	I	Recognize incorrect word choice			
			<p><b>2. Target met:</b> Ninety-five percent (95%) of students enrolled in History I (HIS 121) correctly completed the written communication portion of the HIS 121 Common Assessment in Fall 2021.</p>								
			<p><b>3. Target not met:</b> Fifty-five percent (55%) of a random sample of students (n=72) enrolled in College Composition I (ENG 111) received a score of two (minimal proficiency) on the Organization, Style/Voice, and Sentence Structure categories of the rubric graded writing assignment using the CVCC Written Communication rubric in fall 2021.</p>								

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<p>CVCC Written Communication rubric (Appendix A) to measure the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> <li>• Identify key components of sentence and paragraph structure.</li> <li>• Discern the purpose and context of a variety of written communications and their intended audience.</li> <li>• Construct sentences, paragraphs, essays and documents with clear concise and appropriate language according to conventional English usage, grammar, and mechanics.</li> <li>• Use clear, appropriate, and relevant language to convey or support a main idea or hypothesis with evidence.</li> </ul>		<p>the modality that interests them the most. As a result, students practiced written communication skills while researching a modality that they may choose to pursue in their careers.</p> <p>9. Students enrolled in Advanced Circuits and New Devices (ETR 214) completed a major research paper on a cutting-edge technology topic of their choice. As a result, student receive formative feedback during the writing process and demonstrated increased written communication skills as thy incorporated edits and critiques on each section before advancing to the next. This resulted in a professional paper to add to their portfolio.</p> <p>10. Students enrolled in Lifespan Development (PSY 230) courses completed a rubric graded assignment that involves application of research on Early Childhood Education Centers. Students researched and summarized results of investigations of local centers, applying information from the article to determine appropriateness of local centers.</p> <p>11. Students in Principles of Psychology (PSY 200) completed a rubric graded 500-word application essay examining common themes in social psychology.</p>

**SUMMARY CONCLUSIONS:** Writing assessments benefit from revised rubrics. Rubric use has expanded across various disciplines and is embraced by both students and faculty in assessment. Canvas supports and the distance education policies promote rubric use and professional development is provided for the implementation of rubrics in the LMS (Learning Management System). Adjustments in rubrics are effective action steps, but also create a misalignment of results from prior years. Considering all of that, the evolution of rubrics in written assessment has generated good discussion and meaningful results that supports the further expansion of authentic assessment.

**INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:** N/A

**DATE COMPLETED:** 1/23/23