



**INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT  
GENERAL EDUCATION ASSESSMENT**

**2023-2024**

**Central Virginia Community College**

*Final Report*

**INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2023-24**  
**Central Virginia Community College**

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

**ADDITIONAL INSTITUTIONAL CONTACT:** **Michael Nagy (nagym@centralvirginia.edu);**  
**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

**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 used to assess Civic Engagement during the 2023-24 academic year. Information on student performance is disseminated through Department leadership to allow faculty to develop and implement strategies to improve student outcomes.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
<b>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.</b>  <b>CE2 Formulate a plan to participate in government, community, and/or campus action. Evaluate the ethical implications of individual,</b>	<b>CE1.1</b> 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.  <b>CE1.2</b> 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.	<b>CE1.1</b> 70% of students enrolled in Principles of Macroeconomics (ECO 201) will score 70% or higher on a rubric graded writing assignment to measure the extent to which students achieve the Student Learning Outcome(s): <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><li>• Give examples of the connections between founding documents of</li></ul>	<b>CE1.1</b> Target not met. 66% of a sample of students enrolled in Principles of Macroeconomics (ECO 201) scored 70% or better. Sample: N=77 (Fall 2023, Spring 2024) This is a 7% improvement from the prior year (2022-23) results (59%) for this student learning outcome.  <b>CE1.2</b> Target not met. Students in the sample scored an average of 18.1 in the Research/Evidence category. A score of 20 or higher is required for a score of two	<b>CHM 111/112:</b> <ul style="list-style-type: none"><li>• In order to promote civic engagement skills, students participate in class discussions to practice the ability of effectively communicate ideas and opinions verbally and analyze and evaluate information to make informed decisions.</li><li>• Students in STEM Academy classes are able to turn in extra credit assignments that pertain</li></ul>

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<p><b>community, and civic actions. Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen.</b></p> <p><b>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.</b></p>	<p><b>CE2.1</b> 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).</p> <p><b>CE2.2</b> PSY 230 Graded Written Assignment: Students enrolled in Developmental Psychology (PSY 230) will read and summarize an article on the history and importance of early childhood education. Students will visit 3 websites and evaluate local centers based on questions they develop from their reading.</p> <p><b>CE3.1</b> 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.</p> <p><b>CE3.2</b> 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.</p>	<p>modern governance and national and local issues.</p> <p><b>CE1.2</b> 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):</p> <ul style="list-style-type: none"> <li>Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels.</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> <li>Present arguments, both for and against, regarding issues or events critical to participating as an informed citizen in a democratic society.</li> <li>Describe how diverse opinions, values, perspectives, and life experiences shape and characterize a society or community</li> </ul> <p><b>CE2.1</b> 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 are registered to vote, (b) Increase the percentage of students who vote, and (c) Exceed the national</p>	<p>(minimal proficiency). Sample: N=91 (Fall 2023)</p> <p><b>CE2.1</b> Target partially met. The June 2024 NSLVE Campus Report indicates that (a) the percentage of students registered to vote in 2022 was 71.6%, a +0.3 change from 2018 and (b) the voting rate of registered students in 2022 was 40.9%, a -16.7 change from 2018 producing an overall voting rate of 29.3%, a -11.7 change from 2018. (c) CVCC students in 2022 did not exceed the voting rate for all institutions (30.6%) and matched the voting rate of public associate institutions (29%).</p> <p><b>CE2.2</b> Target met. 81% of a sample of students enrolled in Developmental Psychology (PSY 230) scored 70% or better. Sample: N=147 (Fall 2023, Spring 2024)</p> <p><b>CE3.1</b> Target met. 95% of a sample of students enrolled in American Literature (ENG 246) scored 70% or better. Sample: N=112 (Fall 2023, Spring 2024) This is a 9% improvement from the prior year (2022-23) results (86%) for this student learning outcome.</p> <p><b>CE3.2</b> Target met. 87.5% of students enrolled in U.S. Government and Politics (PLS 135) scored 70% or better. 84.2% of students enrolled in State and Local Government and Politics (PLS 136) scored 70% or better. Sample N=120 (PLS 135, Fall 2023); N=120 (PLS 136, Spring 2024)</p>	<p>to carbon footprint. Each semester second semester STEM students in CHM 112 have the opportunity to do an extra credit assignment in the laboratory. In the year 2023-24, several students in CHM 112 performed a synthesis of banana oil, which is typically done in higher level courses. As a result, these students have increased their understanding of what factors influence their carbon footprint, and what choices they can make to lower their carbon footprint. I have designed online classes in CHM 111 and CHM 112 that provide up to 40 students in rural or underserved urban areas with the opportunity to take chemistry online and perform hands on labs using kits that are purchased from Science Interactive. As a result, these students from areas across the country are able to complete their prerequisites so that they can pursue a career in medicine, biology, or engineering that they might not otherwise be able to enter due to time and financial barriers.</p> <ul style="list-style-type: none"> <li>Students thoroughly examine the hazards and toxicity of the chemicals used in each lab session. This enables them to determine the appropriate methods for disposing of waste, thereby safeguarding the environment. As a result of</li> </ul>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
		<p>and state student voting averages. This aligns with the following Student Learning Outcome(s):</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><b>CE2.2</b> 70% of students enrolled in Developmental Psychology (PSY 230) will score 70% or higher on a graded writing assignment to measure the extent to which students achieve the Student Learning Outcome(s):</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><b>CE3.1</b> 70% of students enrolled in American Literature Courses (ENG 246) will score 70% or higher on a Civic Engagement related essay assignment to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>• Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels.</li> </ul>		<p>this weekly practice, students have expressed a heightened awareness of their role in civic engagement.</p> <p><b>ENG 111/112:</b></p> <ul style="list-style-type: none"> <li>• In order to promote civic engagement, students engage in a series of ten student led debates lasting a class meeting each. These debates require each student to read an article on the selected topic, put forward their views on that topic, and engage each other in courteous, rational debate about the topic. In this way, they improve their understanding of a civic engagement related topic and also practice skills necessary to civic engagement, including research/fact finding, discerning credible sources of information, practicing active listening and accommodation of the views of others in a civil way, and honing rhetorical skills. They then produce an essay on one of the topics, supporting a position with which they personally disagree so as better to understand the views they oppose.</li> <li>• Students write rebuttal essays on controversial and divisive subject matters and participate in peer-review workshops to discuss and critique other classmates' writing and ideas. As a result, these assignments challenge students to engage</li> </ul>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
		<ul style="list-style-type: none"> <li>Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen.</li> <li>Describe how diverse opinions, values, perspectives, and life experiences shape and characterize a society or community.</li> </ul> <p><b>CE3.2</b> 70% of students enrolled in enrolled in U.S. Government and Politics (PLS 135) and State and Local Government and Politics (PLS 136) will score 70% or higher on a rubric graded APA or CMS research essay measuring the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>Present arguments, both for and against, regarding issues or events critical to participating as an informed citizen in a democratic society.</li> <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>		<p>more deeply with ideas they disagree with, better understand their nuances and potential validity, and articulate a less biased viewpoint.</p> <ul style="list-style-type: none"> <li>Students regularly tie argumentative essay class discussions to "new" civic issues on a local, national or global basis and produce at least two argumentative essays focused on civic engagement. One of these arguments will be a proposal argument in which the student must research and propose a specific course of action in relation to a local or regional issue. As a result, the student will come to think more critically and realistically about civic responsibilities in the community or region and how to engage those responsibilities as citizens.</li> </ul> <p><b>SDV 100:</b></p> <ul style="list-style-type: none"> <li>Students watch a civic engagement content video and have activities they can complete through SCHEV. As a result, they will better understand the concept of civic engagement and have opportunities to enhance and utilize their skills.</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), Developmental Psychology (PSY 230), and American Literature (ENG 246) all exceeded expectations, with 87.5%, 81%, and 95% respectively, scoring above the target goal of 70% on assignments focused on fostering civic engagement. However, new data from the National Study of Learning, Voting, and Engagement (NSLVE) released in 2024 was a mixed bag with higher percentages of students registered to vote, but decreased voting by registered voters than in the previous report and voting rates consistent with but not exceeding those rates at other public institutions. Moreover, students enrolled in College Composition I and College Composition II (ENG 111/112) and Principles of Macroeconomics (ECO 201) fell 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 foster continuous improvement in student performance in civic engagement.

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2023-24  
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:

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INSTITUTIONAL GOALS (SUPPORTED):

- ☒ 1. Teaching and Learning
- ☐ 2. Student Supports
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**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 used to assess Critical Thinking during the 2023-24 academic year. Information on student performance is disseminated through Department leadership to allow faculty to develop and implement strategies to improve student outcomes.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
<b>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.</b>  <b>CT2 Evaluate source materials for rigor, validity, and authenticity.</b>  <b>CT3 Use sources to develop rigorous arguments and analyze problems. Use deductive and inductive reasoning to draw conclusions based on data.</b>	<b>CT1.1</b> 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.  <b>CT1.2</b> 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.  <b>CT2.1</b> ECO 201 Graded Writing Assignment: Students enrolled in	<b>CT1.1</b> Students enrolled in U.S. History I & II (HIS 121/122) will score an average grade of 70% or higher on critical thinking questions on an exam to measure the extent to which students achieve the Student Learning Outcome(s): <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> <b>CT1.2</b> Students graduating with an associate degree will score on average	<b>CT1.1</b> Target met. Students enrolled in U.S. History I (HIS 121) scored an average of 90% on critical thinking questions. Students enrolled in U.S. History II (HIS 122) scored an average of 78.9% on critical thinking questions. (Fall 2023, Spring 2024 – sample size not available)  <b>CT1.2</b> Target not met. Students in the 2023-2024 Graduate Cohort scored an average of 109.39 on the Critical Thinking scaled score. The national norm for Associate's Colleges (68 institutions, 28,754 students) in 2024 is	<b>BIO 102:</b> <ul style="list-style-type: none"><li>• To promote critical thinking skills, students read news articles to summarize and analyze pros/cons or develop rankings. This was performed as a "jigsaw" so they could see how other students responded to the same questions. Students therefore practiced their critical thinking skills, as well as observed how others thought critically.</li></ul> <b>CHM 111/112:</b>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
	<p>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><b>CT2.2</b> 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.</p> <p><b>CT3.1</b> ENG 111 Graded Writing Assignment (Select Rubric Categories): Students enrolled in College Composition I (ENG 111) complete a rubric graded writing assignment each term.</p> <p><b>CT3.2</b> HIS 121/122 Graded Writing Assignment (Select Rubric Categories): Students enrolled in U.S. History I/II (HIS 121/122) will complete a rubric graded written response to an essay question each term.</p>	<p>above the national norm on the Critical Thinking scaled score of the ETS Proficiency Profile to measure the extent to which students achieve the Student Learning Outcome(s):</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><b>CT2.1</b> 70% of students enrolled in Principles of Macroeconomics (ECO 201) will score 70% or higher on a rubric-graded writing assignment that requires reviewing an article to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>Evaluate source materials for rigor, validity, and authenticity</li> </ul> <p><b>CT2.2</b> 70% of students enrolled in General Biology I &amp; II (BIO 101/102) will score 70% or higher on questions to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>Evaluate source materials for rigor, validity, and authenticity.</li> </ul> <p><b>CT3.1</b> A random sample of students enrolled in College Composition (ENG 111) will score, on average, two (minimal proficiency) or higher on the Paragraph Development, Evidence and Research, Reasoning, and Rebuttal categories of a rubric graded writing assignment using the CVCC Written Communication rubric (Appendix A) to measure the extent to which students</p>	<p>a score of 109.4. Sample: N=259 (Fall 2023, Spring 2024)</p> <p><b>CT2.1</b> Target not met. 66% of a sample of students enrolled in Principles of Macroeconomics (ECO 201) scored 70% or better. Sample: N=77 (Fall 2023, Spring 2024) This is a 7% improvement from the prior year (2022-23) results (59%) for this student learning outcome.</p> <p><b>CT2.2</b> Target met. 82% of students enrolled in General Biology I (BIO 101) scored 70% or better. 86% of students enrolled in General Biology II (BIO 102) scored 70% or better. Sample: N=254 (Fall 2023), N=178 (Spring 2024)</p> <p><b>CT3.1</b> Target partially met (Paragraph and Development category). Students in the sample scored an average of 11.4 in the Paragraph Development category. A score of 10 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 18.1 in the Evidence and Reasoning category. A score of 20 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 13.5 in the Rebuttal category. A score of 15 or higher is required for a score of two (minimal proficiency). Sample: N=91 (Fall 2023)</p> <p><b>CT3.2</b> Target met. Students enrolled in U.S. History I (HIS 121) scored an average of 79% on the essay response question. Students enrolled in U.S. History II (HIS 122) scored an average of 87.4% on the essay response</p>	<ul style="list-style-type: none"> <li>In order to promote critical thinking skills, students are required to listen to recordings that I have prepared for all the chapters that we cover in each course. In addition, students are given opportunity to listen to videos that are provided by Khan Academy, Crash Course Chemistry in order to earn extra credit points. This practice of using multiple information sources makes my students better learners in this information age. As a result, my students learn to broaden their exposure to information so that their comprehension is stronger and their retention of information is improved.</li> </ul> <p><b>ENG 111/112:</b></p> <ul style="list-style-type: none"> <li>In order to foster critical thinking skills, we began instructing students in the acceptable use of AI technologies. In one such assignment, students read a scholarly article, then write a summary of that article's main and supporting points. They then have an AI tool perform the same function, observe the differences between their summary/analysis and the AI summary Analysis, and write a page explaining any key discrepancies between the two summary/analyses, focusing on problems in their own or the AI's summary analysis and any factual errors in the AI summary</li> </ul>



General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
		<p>achieve the Student Learning Outcome(s):</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, validity, and authenticity.</li> <li>Use sources to develop rigorous arguments and analyze problems.</li> </ul> <p><b>CT3.2</b> Students enrolled in U.S. History I &amp; II (HIS 121/122) will score 70% or higher on 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):</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 the data.</li> </ul>	<p>question. (Fall 2023, Fall 2024 – sample size not available)</p>	<ul style="list-style-type: none"> <li>Students complete annotated bibliographies. As a result, students learn to find and evaluate relevant and credible sources and discern whether and how they will incorporate the data and arguments in their rebuttal essays.</li> <li>Students are now required to read essays and evaluate them for logical, ethical, and emotion-based fallacies and identify what damage this does to the essay, as well as being regularly given short pieces of "out of class" materials from a diverse body of works and asked to identify assumptions and fact-based material, the differences between the two, how function in the work (help or hinder and why?). In ENG 246, students are expected to engage in increasingly deep reading with every assignment, differentiating in fiction pieces what is happening topically and what is happening symbolically and/or thematically. At the end of the semester, students must pick a work of their choice from the semester and present to the class in-depth analysis of what is happening on the surface of the story as opposed to what is happening symbolically and/or thematically and how this changes the understanding of this particular piece of literature.</li> </ul>

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				<ul style="list-style-type: none"><li>Students follow assigned news organizations, answering questions and discussing their findings. As a result, they will be aware of biases in the media and recognize the importance of evaluating sources.</li><li>Students work on evaluating sources and what would be relevant, scholarly research. They work to recognize explicit information and pull in quotes to support our body paragraphs. All of these techniques help promote critical thinking skills.</li></ul> <p><b>EGR 121:</b></p> <ul style="list-style-type: none"><li>In order to promote critical think skills, students are required to design a solution to a problem from published requirements and available knowledge. As a result, they are required to develop hypotheses, test and refine them, and finally defending their design before their instructor and peers.</li></ul> <p><b>SDV 100:</b></p> <ul style="list-style-type: none"><li>Students can participate in Student Voting Summit, and a College Debates and Discourse Alliance Training. These opportunities will promote their critical thinking skills and exceed expectations from previous years.</li></ul>

**SUMMARY CONCLUSIONS:** The 2023-2024 academic year data shows both successful outcomes and areas needing improvement. Overall, students across various classes show mixed results in critical thinking. Students enrolled in U.S. History I and II demonstrated strong performance in critical thinking and essay responses, with HIS 121 students scoring an average of 90% and 79% on critical thinking and essay questions. However, students in HIS 122 scored slightly lower on critical thinking questions (78.9%) but achieved higher essay scores (87.4%). The Graduate Cohort narrowly missed the national norm for Critical Thinking scores, falling just short at 109.39 compared to the national average of 109.4. While CVCC's ETS average for critical thinking did not meet the target, we were merely 1/100 of a point away! In Principles of Macroeconomics (ECO 201), the target was not met, though there was a 7% improvement from the previous year, with 66% of students scoring 70% or better. On the other hand, General Biology I and II students met their targets, with 82% and 86% achieving scores of 70% or better. In College Composition, students partially met targets, performing well in Paragraph Development but falling short in Evidence and Reasoning and Rebuttal categories, indicating areas where further improvement is needed. Overall, most academic targets were met, with good progress in areas like Macroeconomics, though writing proficiency and critical thinking in the Graduate Cohort need attention.

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2023-24  
Central Virginia Community College

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

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- Providing open, flexible, affordable, quality learning opportunities for personal growth and the acquisition of knowledge and skills necessary for productive and meaningful life,
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INSTITUTIONAL GOALS (SUPPORTED):

- ☒ 1. Teaching and Learning
- ☐ 2. 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 used to assess Professional Readiness during the 2023-24 academic year. Information on student performance is disseminated through Department leadership to allow faculty to develop and implement strategies to improve student outcomes.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
<p><b>PR1 Recognize appropriate workplace and classroom habits, demeanor, and behavior. Identify the qualities of an ethical decision.</b></p> <p><b>PR2 Collaborate with others on a task to achieve a common goal. Cultivate skills to communicate effectively and professionally.</b></p> <p><b>PR3 Set goals, and implement a plan for personal, professional, and/or academic achievement.</b></p>	<p><b>PR1.1</b> 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.</p> <p><b>PR2.1</b> 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</p>	<p><b>PR1.1</b> Seventy percent (70%) of students enrolled in College Success Skills (SDV 100) will score 70% or higher on a Communication Styles assignment to measure the extent to which students achieve the Student Learning Outcome(s):</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><b>PR2.1</b> 70% of students enrolled in Principles of Public Speaking (CST 100) will score 70% or higher on a</p>	<p><b>PR1.1</b> Target met. 86.9% of students enrolled in College Success Skills (SDV 100) scored 70% or higher. (Sample: N=899 Fall 2023, Spring 2024)</p> <p><b>PR2.1</b> Target met. 93.6% of students enrolled in Principles of Public Speaking (CST 100) scored 70% or higher.</p> <p><b>PR3.1</b> Target met. 81.9% of first time in college, program-placed students completed the Program Planner Student Survey with a score of 70% or higher. (Sample: N=755, Fall 2023, Spring 2024)</p>	<p><b>BIO 101:</b></p> <ul style="list-style-type: none"><li>• In order to promote professional readiness skills, students write their first lab report as a group. Later lab reports may be done as a group or individual. As a results, some students have had to have sensitive discussions with their group members about working alone. This provides practice for teamwork as well as holding difficult conversations.</li></ul> <p><b>BIO 102:</b></p>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
	<p>persuasive topic, use evidence to support the claim, and demonstrate components of argumentation to attempt to convince their audience of their claims.</p> <p><b>PR3.1</b> 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.</p>	<p>persuasive public speaking assignment to measure the extent to which students achieve the Student Learning Outcome(s):</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><b>PR3.1</b> 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 higher each fall to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>• Set goals, and implement a plan for personal, professional, and/or academic achievement.</li> </ul>		<ul style="list-style-type: none"> <li>• In order to promote professional readiness skills, students conduct in-person lab activities in a group. They can choose to submit their own lab results or submit lab results as a group and everyone gets the same grade. As a result, students learn how to navigate group dynamics and when it might be best for them to submit work independently.</li> </ul> <p><b>CHM 111/112:</b></p> <ul style="list-style-type: none"> <li>• In order to promote professional readiness skills, students are required to submit electronically their completed laboratory reports. As a result, students are learning how to follow a seven part format (title, purpose, procedure, data, calculations, discussion, conclusion) that is very common in industrial laboratories. Students are more prepared for jobs in industry after they have prepared and submitted these 10 lab reports.</li> </ul> <p><b>ENG 111:</b></p> <ul style="list-style-type: none"> <li>• Students learn about the importance of audience in writing. As a result, they will recognize the need to adjust content and focus based on their readers.</li> </ul> <p><b>ENG 111/112:</b></p> <ul style="list-style-type: none"> <li>• In order for students to work well with others, we conduct a series of peer reviews. During these assignments, students</li> </ul>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
				<p>must work with each other and be able to convey both strengths and weaknesses to their peers. This will help them learn how to use appropriate demeanor and behavior. We also have multiple group presentations where they have to learn to work in large groups and listen to others who may have differing opinions.</p> <p><b>ENG 112:</b></p> <ul style="list-style-type: none"> <li>In order to promote professional readiness skills, students complete a group research project. As a result, students learn how to collaborate with others, delegate responsibilities, speak in a public setting, and engage with people of various personalities</li> </ul> <p><b>EGR 121:</b></p> <ul style="list-style-type: none"> <li>In order to promote professional readiness skills, students in EGR 121 are required to develop multiple project status presentations which are delivered to their peers. They are also required to work in a team environment to solve design challenges. As a result, students are better equipped to collaborate with others as well as share ideas in a public setting.</li> </ul> <p><b>SDV 100:</b></p> <ul style="list-style-type: none"> <li>Students complete a communications style module that will consist of</li> </ul>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
				communication styles, messages, listening, and difficult conversation. As a result, students will be able to recognize appropriate workplace and classroom etiquette and behavior. A multiple choice quiz will be provided to test their skills.

**SUMMARY CONCLUSIONS:** In the academic year 2023-2024, 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 Navigate Program Planner were met due to the increase of students completing through College Success Skills (SDV 100). Workshops and videos were created to help students understand how to complete the Program Planner. In the future, we will continue to require all College Success students to complete the program planner and provide workshops and videos for students to learn how to use the program planner effectively. Students in Principles of Public Speaking (CST 100) successfully completed the assessment requirements. Hands-on group activities were used to teach students to collaborate with others on a task to achieve a common goal. Hands-on individual activities were used to cultivate skills to communicate effectively and professionally. We end 2023-2024 with a positive outcome and experience.

**INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2023-24**  
**Central Virginia Community College**

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

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

**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 used to assess Quantitative Literacy during the 2023-24 academic year. Information on student performance is disseminated through Department leadership to allow faculty to develop and implement strategies to improve student outcomes.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
<b>QL1 Distinguish between quantitative and qualitative analysis. Identify numerical information presented in relevant equations, graphs, diagrams, tables, and words.</b>  <b>QL2 Interpret quantitative information to draw relevant conclusions. Evaluate numerical information for usefulness, accuracy, and significance.</b>  <b>QL3 Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</b>	<b>QL1.1</b> 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.  <b>QL2.1</b> HIS 121 Graded Exam: 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.  <b>QL3.1</b> MTH 161 Graded Exam: Students enrolled in Pre-Calculus I (MTH 161) will complete a graded final	<b>QL1.1</b> Students graduating with an associate degree will score on average above the national norm on the mathematics scaled score of the Territorium E-Proficiency Profile to measure the extent to which students achieve the Student Learning Outcome(s): <ul style="list-style-type: none"><li>• Distinguish between quantitative and qualitative analysis.</li><li>• Identify numerical information presented in relevant equations, graphs, diagrams, tables, and words.</li></ul> <b>QL2.1</b> Students enrolled in U.S. History I (HIS 121) will score an average of 70% or higher on Quantitative Literacy	<b>QL1.1</b> Target met. Students in the 2023-2024 Graduate Cohort scored an average of 111.73 on the Mathematics scaled score of the Territorium E-Proficiency Profile. The national norm for Associate's Colleges (68 institutions, 28,754 students) in 2024 is a score of 111.4. Sample: N=259 (Fall 2023, Spring 2024)  <b>QL2.1</b> Target met. Students enrolled in U.S. History I (HIS 121) scored an average of 94% on quantitative literacy questions. (Fall 2023 – sample size not available)	<b>BIO 101:</b> <ul style="list-style-type: none"><li>• In order to promote quantitative literacy skills, students in BIO 101 are assigned a take-home quiz on the lab with the heaviest math focus. As a result, they will have more practice understanding and explaining math concepts.</li></ul> <b>BIO 102:</b> <ul style="list-style-type: none"><li>• In order to promote quantitative literacy skills, students in BIO 102 complete a lab activity with a heavy focus on using proportions to estimate population size of a flower from</li></ul>



General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
	<p>exam that requires calculating and conveying information as part of Quantitative Literacy.</p> <p><b>QL3.2</b> 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.</p> <p><b>QL3.3</b> 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.</p>	<p>questions on an exam to measure the extent to which students achieve the Student Learning Outcome(s):</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><b>QL3.1</b> Seventy percent (70%) of students enrolled in Pre-Calculus I (MTH 161) will score 70% or higher on a comprehensive final exam to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>• Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</li> </ul> <p><b>QL3.2</b> 70% of students enrolled in General Biology I &amp; II (BIO 101/102) will score 70% or higher on the Quantitative Literacy portion of graded lab assignments to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>• Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</li> </ul> <p><b>QL3.3</b> 70% of students in General Chemistry I &amp; General Chemistry II (CHM 111/112) will score 70% or higher on a comprehensive final exam to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>• Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</li> </ul>	<p><b>QL 3.1</b> Target not met. 43% of students enrolled in Pre-Calculus I (MTH 161) scored 70% or better. Sample: N=239 (Fall 2023)</p> <p><b>QL 3.2</b> Target met. 76.47% of a sample of students enrolled in General Biology I (BIO 101) and 87.88% of a sample of students enrolled in General Biology II (BIO 102) scored 70% or better. Sample: N=34 (Fall 2023), N=33 (Spring 2024)</p> <p><b>QL 3.3</b> Target met. 82% of a sample of students enrolled in General Chemistry I (CHM 111) and 91% of a sample of students enrolled in General Chemistry II (CHM 112) scored 70% or better. Sample: N=33 (Fall 2023), N=23 (Spring 2024)</p>	<p>a smaller sample. As a result, students get more practice with word problems for proportions.</p> <p><b>CHM 111/112:</b></p> <ul style="list-style-type: none"> <li>• In order to promote quantitative literacy skills, students use several Excel spreadsheets that are configured to help them to solve chemical problems. Students are encouraged to use Excel spreadsheets to solve chemical problems. All students are required to graph the data from their laboratory experiments using Excel. As a result, the students are much more likely to retain the methodology to solve problems when they are using the framework that has been created in the spreadsheet. Students who use Excel to graph their experiments turn in their assignments that appear more professional. My students are better prepared for their careers where data analysis and graphing are required. I incorporate several games, one example is "US Army Stars for Chemistry", that provide students a game to practice their skills in Stoichiometry and Balancing equations. As a result, students are more likely to progress faster in developing their math skills as they pertain to chemistry.</li> <li>• To enhance students' proficiency in quantitative literacy skills, weekly assignments, bi-weekly quizzes, and four tests are administered throughout the</li> </ul>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
				<p>semester. All these assignments emphasize word problem solving. Consequently, students express greater confidence in their ability to tackle word problems in the final assessment for the course.</p> <p><b>EGR 121:</b></p> <ul style="list-style-type: none"><li>• In order to promote quantitative literacy skills, students are required to engineering problems which usually involve multiple complex engineering calculations. As a result, working with integers, algebra, word problems, etc., are just tools utilized in achieving a higher goal.</li></ul> <p><b>MTH 154/161:</b></p> <ul style="list-style-type: none"><li>• In the 2023-24 academic year math faculty developed and published promotional videos giving an overview of learning objectives and expectations for students to advise them before entry into their respective math courses. This supported students understanding of course objectives and quantitative literacy skills.</li></ul> <p><b>MTH 154/155/161:</b></p> <ul style="list-style-type: none"><li>• Summer bootcamps were developed for boosting quantitative literacy skills prior to the start of the fall 2024 term for students enrolled in their gateway college-level math course. In this bootcamp, students will practice common</li></ul>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
				skills and habits to prepare for their math courses. Advising services marketed this opportunity and engaged a number of interested students during enrollment for the fall 2024 term.

**SUMMARY CONCLUSIONS:** In the 2023-24 academic year, quantitative literacy targets were met across the selected assessment measures, with the exception of the comprehensive final exam of Pre-Calculus I (MTH 161) students, where only 43% of students scored at or above the target goal of 70%. As part of the college’s Quality Enhancement Plan, there is an increased focus on enrolling students into their gateway math courses (including MTH 154, 155, and 161) during a student’s first year of study. This increased enrollment within MTH 161 is a potential contributor to lower achievement in that assessment measure. As part of the academic support services introduced to help increase student success in these courses, future students enrolling into fall MTH 161 courses have the opportunity to engage with instructors and peers in a math boot camp directly prior to the start of the semester, free of charge. Faculty and advising staff continue to support students by directing them to resources such as the corequisite support class option, and the free Math Achievement Learning Lab, to provide additional instruction and practice in addition to classroom learning and activities. Disciplines outside of mathematics continue to support the development of quantitative reasoning skills for CVCC students, with Biology and Chemistry students demonstrating success in meeting target goals across their respective assessments.

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2023-24  
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 used to assess Scientific Literacy during the 2023-24 academic year. Information on student performance is disseminated through Department leadership to allow faculty to develop and implement strategies to improve student outcomes.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
<b>SL1 Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.</b>  <b>SL2 Design an experiment to test a hypothesis.</b>  <b>SL3 Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings.</b>	<b>SL1.1</b> 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.  <b>SL1.2</b> 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.  <b>SL2.1</b> BIO 101/102 Graded Assignments:	<b>SL1.1</b> 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 Student Learning Outcome(s): <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> <b>SL1.2</b> 70% of the students enrolled in General Biology I & II (BIO 101/102) will score 70% or higher on Scientific	<b>SL1.1</b> Target met. Students in the 2023-2024 Graduate Cohort scored an average of 113.25 on the Natural Sciences scaled score. The national norm for Associate’s Colleges (68 institutions, 28,754 students) in 2024 is a score of 113.2. Sample: N=259 (Fall 2023, Spring 2024)  <b>SL1.2</b> Target partially met. 73% of students enrolled in General Biology I (BIO 101) scored 70% or better. 53% of students enrolled in General Biology II (BIO 102) scored 70% or better. Sample: N=254 (Fall 2023), N=178 (Spring 2024)	<b>BIO 101/102:</b> <ul style="list-style-type: none"><li>• To promote scientific literacy skills, students complete lab activities and discussions 1-2 times a week which require application of scientific concepts, providing many opportunities to develop scientific literacy skills.</li></ul> <b>CHM 111/112:</b> <ul style="list-style-type: none"><li>• In order to improve scientific literacy skills, students complete 10 lab reports following in-class lab assignments. As a result, students demonstrate improved</li></ul>

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
	<p>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><b>SL2.2</b> 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.</p> <p><b>SL3.1</b> BIO 101/102 Graded Lab Assignments: Students enrolled 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.</p>	<p>Literacy questions on the end-of-course examination to measure the extent to which students achieve the Student Learning Outcome(s):</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><b>SL2.1</b> 70% of the students enrolled in General Biology I &amp; II (BIO 101 and 102) will score 70% or higher on the formative Scientific Literacy assignments to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>Design an experiment to test a hypothesis.</li> </ul> <p><b>SL2.2</b> 70% of students enrolled in General Chemistry I &amp; II (CHM 111/112) will score 70% or higher on assignments that measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>Practice the mechanism of science when performing laboratory experiments.</li> </ul> <p><b>SL3.1</b> 70% of students enrolled in General Biology I &amp; II (BIO 101/102) will score 70% or higher on the Scientific Literacy portion of graded lab assignments to measure the extent to which students achieve the Student Learning Outcome(s):</p> <ul style="list-style-type: none"> <li>Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings.</li> </ul>	<p><b>SL2.1</b> Target partially met. 65% of a sample of students enrolled in General Biology I (BIO 101) scored 70% or better. 100% of a sample of students enrolled in General Biology II (BIO 102) scored a 70% or better. Sample: N=34 (Fall 2023), N=24 (Spring 2024)</p> <p><b>SL2.2</b> Target met. 100% of a sample of students enrolled in General Chemistry I &amp; II (CHM 111/112) scored 70% or better. Sample: N=33 (Fall 2023), N=23 (Spring 2024)</p> <p><b>SL 3.1</b> Target partially met. 65% of a sample of students enrolled in General Biology I (BIO 101) scored 70% or better. 100% of a sample of students enrolled in General Biology II (BIO 102) scored a 70% or better. Sample: N=34 (Fall 2023), N=24 (Spring 2024)</p>	<p>understanding of the scientific method and general scientific skills.</p> <ul style="list-style-type: none"> <li>Students engage in eleven experiments and craft corresponding lab reports throughout the semester to enhance their scientific literacy. This process enables students to showcase an improved grasp of the scientific method and general scientific skills.</li> </ul> <p><b>EGR 121:</b></p> <ul style="list-style-type: none"> <li>In order to promote scientific literacy skills, students create hypotheses using phical concepts and principles and validate them using the scientific method with respect to various parts of their design project. As a result, they will gain experience in research, design, test, and verification.</li> </ul>

**SUMMARY CONCLUSIONS:** For General Biology, it appears that as students progress from General Biology I (BIO 101) to General Biology II (BIO 102), they may forget some of the specific details and terminology related to scientific literacy, but their ability to develop and perform experiments and conclusions improves. Students in General Chemistry I (CHM 111) and II (CHM 112) met the specified target for laboratory assignments in the 2023-24 academic year. Overall, the science disciplines of Biology and Chemistry provide a strong basis and ample opportunity for students to develop and refine their scientific literacy skills, and faculty are engaged in ongoing development of opportunities for students to bolster these skills. The graduate cohort assessed for achievement in Natural Sciences slightly exceeded the national norm for Associate's Colleges, indicating that CVCC students are overall performing at the average of their peers.

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2023-24  
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):

- ☒ 1. Teaching and Learning
- ☐ 2. 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 used to assess Written Communication during the 2023-24 academic year. Information on student performance is disseminated through Department leadership to allow faculty to develop and implement strategies to improve student outcomes.

General Education Student Learning Outcomes	Assessment Measure / Method	Target Goal / Criteria for Success	Results and Findings	Use of Results to Improve Outcomes
<b>WC1 Identify key components of sentence and paragraph structure. Discern the purpose and context of a variety of written communications and their intended audience.</b>  <b>WC2 Construct sentences, paragraphs, essays, and documents with clear, concise, and appropriate language according to conventional English usage, grammar, and mechanics.</b>  <b>WC3 Use clear, appropriate, and relevant language to convey or support a main idea or hypothesis with evidence.</b>	<b>WC1.1</b> 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.  <b>WC2.1</b> 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.  <b>WC3.1</b> ENG 111 Graded Writing Assignment (Select Rubric Categories):	<b>WC1.1</b> 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): <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> <b>WC2.1</b> Students enrolled in U.S. History I & II (HIS 121/122) will score 70% or higher on a rubric graded essay question (Appendix B) to	<b>WC1.1</b> Target met. Students in the 2023-2024 Graduate Cohort scored an average of 112.28 on the Writing scaled score. The national norm for Associate's Colleges (68 institutions, 28,754 students) in 2024 is a score of 112.1. Sample: N=259 (Fall 2023, Spring 2024)  <b>WC2.1</b> Target met. Students enrolled in U.S. History I (HIS 121) scored an average of 79% on the essay response question. Students enrolled in U.S. History II (HIS 122) scored an average of 87.4% on the essay response question. (Fall 2023, Spring 2024 – sample size not available)	<b>BIO 101:</b> <ul style="list-style-type: none"><li>• In order to promote written communication skills, students in BIO 101 will write a lab report of their semester-long research project over a series of four drafts. They receive feedback on each draft and are expected to make corrections. As a result, students will see the mistakes they make and hopefully make fewer of the same mistakes with each iteration of the lab report.</li></ul> <b>CHM 111/112:</b>

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 College Composition I (ENG 111) complete a rubric graded writing assignment each term.	<p>measure the extent to which students achieve the Student Learning Outcome(s):</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><b>WC3.1</b> A random sample of students enrolled in College Composition I (ENG 111) will score, on average, minimal proficiency (two) or higher in the Organization, Paragraph Development, Evidence and Research, Reasoning, Style/Voice, Sentence Structure, and Proofreading, Formatting, and Documentation 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):</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><b>WC3.1</b> Target partially met (Organization, Paragraph Development, Style and Voice, and Sentence Structure categories). Students in the sample scored an average of 20.3 in the Organization category. A score of 20 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 11.4 in the Paragraph Development category. A score of 10 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 18.1 in the Evidence and Research category. A score of 20 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 14.9 in the Reasoning category. A score of 15 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 15.5 in the Style/Voice category. A score of 15 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 15.4 in the Sentence Structure category. A score of 15 or higher is required for a score of two (minimal proficiency). Students in the sample scored an average of 13.9 in the Proofreading and Formatting category. A score of 15 or higher is required for a score of two (minimal proficiency). Sample: N=91 (Fall 2023)</p>	<ul style="list-style-type: none"> <li>In order to promote written communication skills, students complete 10 lab reports. As a result, students learn to communicate information in a 7-part format that is commonly found in industrial environments. Their writing skills improve when they learn to complete these lab reports.</li> </ul> <p><b>ENG 111/112:</b></p> <ul style="list-style-type: none"> <li>In order to foster better skills in written communication, students engaged in an enhanced peer review/self edit tool that uses basic editing tools (control F) to help students locate and correct very basic stylistic and grammatical errors in their writing. Requiring students to search their essays for specific errors with word processor assistance, will help them recognize the frequency of specific errors in their writing and gradually reduce the incidence of those errors.</li> <li>Students write 4 major essays of different modes (rhetorical analysis, persuasive argument, personal narrative, evaluation). As a result, students learn the writing process in a holistic way: brainstorming, researching, outlining, drafting, revising, editing.</li> <li>Students do extensive work to improve written communication. With our</li> </ul>



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				<p>essays, reflections, and informal writing, instructors provide mini-lessons on run-ons, fragments, parallelism, word clutter, etc. All of these grammatical units are designed to strength students' understanding of the written language and how to develop better written skills. Time is spent in class discussing the 8 parts of speech and then identifying elements in their own writing. This helps to transfer the material into practical application so students will be better able to communicate effectively.</p> <ul style="list-style-type: none"><li>Students are expected from the beginning of the course to consider both context and audience as key elements in developing a working essay. Recently, early in ENG 111, students have begun writing short, impromptu arguments to actual audiences who have the power to take action on the argument and then evaluate these argumentative prompts in pairs or small groups for critical feedback on "audience-based reasoning" usage as opposed to "writer-based reasoning."</li></ul> <p><b>EGR 121:</b></p> <ul style="list-style-type: none"><li>In order to promote written communication skills, student teams are required to write a design specification for their project design that will include requirements, theory of</li></ul>

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				operation, diagrams, simulations, and software required in their design. As a result, they will gain experience in expressing their thoughts and ideas in written form.

**SUMMARY CONCLUSION:** 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 79% scoring above the target goal of 70% on an assignment designed to measure written communication aptitude in History I (HIS 121), with 87.4 percent scoring above the 70% target goal in History II (HIS 122). However, students enrolled in College Composition I and College Composition II (ENG 111/112) fell slightly short of the target goal in two of five rubric categories for written communication. Improvement is needed is needed in Research and Evidence, Reasoning, and Proofreading/Formatting. However, students scored slightly above 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.