

Central Virginia Community College (CVCC)
General Education Assessment Report
2020-2021

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2020-21

Central Virginia Community College

PROGRAM: General Education – Civic Engagement

**NAME OF PROGRAM COORDINATOR: Charles Poff (poffc@centralvirginia.edu);
Jim Tuite (tuitej@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. Connection
- 2. Entry
- 3. Progression
- 4. Completion
- 5. Affordability and Sustainability

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>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.</p> <p>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</p>	<p>1. A college wide annual voting and voting registration drive will be conducted for state and federal elections (with student participation).</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. 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</p>	<p>1. Annual voting and voting registration drives will be conducted for state and federal elections (with student participation). Once baseline data is acquired from the National Study of Learning, Voting, and Engagement (NSLVE) in spring 2019 our goals will be to:</p> <ul style="list-style-type: none"> • Increase the percentage of students who are registered to vote. • Increase the percentage of students who vote. • Exceed the national and state student voting averages. <p>To measure the extent to which students:</p>	<p>1. Target met: NSLVE data for the 2020 presidential election will not be made available until fall 2021. We have, however, received the data for the 2018 mid-term election. Here are some notable data points from the report:</p> <ul style="list-style-type: none"> • The percentage of registered voters increased from 61% in 2014 to 71.4% in 2018. • The percentage of registered voters who voted increased from 36.7% in 2014 to 57.1% in 2018. • The overall voting rate increased from 22.4% in 2014 to 40.7% in 2018. 	<p>1. 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.</p> <p>2. Students in English 111 completed an assignment requiring them to read, summarize, and evaluate a peer reviewed article on a civic engagement topic, then present that information to the class, prior to engaging in an in-class discussion and debate on that</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
<p>current issues that are necessary to be an informed, contributing citizen.</p> <p>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.</p>	<p>a seven-page minimum, researched literary analysis addressing these attributes of an assigned text or texts.</p> <p>4. Students enrolled in U.S. Government I & II (PLS 211/212) will complete a written, research-based essay demonstrating their ability to analyze a politically divisive issue and, using peer-reviewed research, propose a potential equitable resolution to the issue.</p> <p>5. Students enrolled in Principles of Macroeconomics (ECO 201) will complete written assignments that acquaint students to civic engagement challenges.</p>	<ul style="list-style-type: none"> 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. <p>A random sample of students enrolled in College Composition I (ENG 111) will score, on average, two (minimal proficiency) or higher on the ideas and development 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"> Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels. Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen. Present arguments, both for and against regarding issues or events critical to participating as an informed citizen in a democratic society. <p>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>	<ul style="list-style-type: none"> The overall voting rate at CVCC was 40.7% compared to 39.1% for all institutions. <p>2. Target met: Students in ENG 111 scored, on average, a 2.44. ENG 112 artifacts are not scored until Fall 2021 and Spring 2019 data is not available due to COVID-19.</p> <p>3. Target met: 77.4% of students in ENG 241 scored a 70% or above and 72.3% of students in ENG 242 scored a 70% or above.</p> <p>4. Target met: 79.7% of students in PLS 211 scored a 70% or above and 92.2% of students in PLS 212 scored a 70% or above.</p> <p>5. Target met: Students in ECO 201 scored an average of 86% in the spring term.</p>	<p>topic. Students then completed a civic engagement essay on the discussed topic of their choice.</p> <p>The Department Coordinator met with all department faculty to clarify the parameters of the civic engagement topic and essay requirements and posted the relevant criteria to the department Canvas site.</p> <p>3. Students in English Literature Courses completed a major essay tying to the ideas of Freud, Darwin, and Marx and their influence on complete a canvas module explaining the influence of Freud, Darwin, and Marx on 19th and 21st century literary texts, socio-political, economic, cultural, and historical developments.</p> <p>4. Pedagogical changes were made in ECO 201 and ECO 202 to improve student learning outcomes in all virtual and remote (real-time) online courses. Students participated in online discussion forums, which provided them opportunities to enhance civic engagement skills in terms of the study of individual businesses and the national economy. Students reviewed two newspaper articles and wrote a 500-word narrative about core issue(s) addressed in each article. A standard rubric was used to score the quality of work submitted by designated deadlines. New lecture notes and revised preexisting lecture notes were prepared based on new or updated information contained in the economics literature or presented in the mainstream media.</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"> • Describe how diverse opinions, values, perspectives, and life experiences shape and characterize a society or community. • Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels. • Summarize historical knowledge and current issues that are necessary to be an informed, contributing citizen. <p>Seventy percent (70%) of students enrolled in U.S. Government I & II (PLS 211/212) will score a grade of seventy percent (70%) or better on a Civic Engagement related written, research-based essay to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> • 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. <p>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>		

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<ul style="list-style-type: none"> Identify civic, social, environmental, historical, or economic challenges at local, national, or global levels. Identify forms of governance and leadership both nationally and globally. 		

SUMMARY CONCLUSIONS: Civic engagement is a newly identified general education competency. The addition of this competency has generated productive discussions across divisions and departments as we all acknowledge the need for strengthening opportunities for students and citizens to be well-informed and contributing participants in a democratic society. The 2020-21 academic year was primarily conducted virtually or with limited access to campus, due to the COVID-19 pandemic. As we reopen our campus in fall 2021, there will be more opportunities to engage with students and employees to expand Civic Engagement opportunities both in and out of the classrooms.

INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:

DATE COMPLETED: 11/30/2021

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2020-21

Central Virginia Community College

PROGRAM: **General Education – Critical Thinking**

NAME OF PROGRAM COORDINATOR: **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. Connection
- 2. Entry
- 3. Progression
- 4. Completion
- 5. Affordability and Sustainability

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																								
<p>Identify and evaluate relevant and diverse points of view. Identify logical fallacies, propaganda techniques, opinions, stereotypes, and assumptions. Identify conclusions based on empirical evidence.</p> <p>Evaluate source materials for rigor, validity, and authenticity.</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 College Composition I & College Composition II (ENG 111/112) complete a rubric graded writing assignment each term.</p> <p>3. Students enrolled in Principles of</p>	<p>1. 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"> • 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. 	<p>1. Target met: CVCC students scored 111 compared to the national average of 110. This data is from Spring 2019. The assessment has not been administered for the last two academic years due to COVID-19. The assessment will resume in 2021-22.</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>58.9</td> <td>62.9</td> <td>-4</td> <td>Critical Thinking</td> <td>III</td> <td>Evaluate hypotheses</td> </tr> <tr> <td>59.6</td> <td>60.6</td> <td>-1</td> <td>Critical Thinking</td> <td>III</td> <td>Recognize an assumption</td> </tr> <tr> <td>55</td> <td>47.5</td> <td>7.5</td> <td>Critical Thinking</td> <td>III</td> <td>Evaluate data for consistency</td> </tr> </tbody> </table>	Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content	58.9	62.9	-4	Critical Thinking	III	Evaluate hypotheses	59.6	60.6	-1	Critical Thinking	III	Recognize an assumption	55	47.5	7.5	Critical Thinking	III	Evaluate data for consistency	<p>1. Students in English 111 Completed an assignment requiring them to read, summarize, and evaluate a peer reviewed article on a civic engagement topic, then present that information to the class, prior to engaging in an in-class discussion and debate on that topic. Students then completed a civic engagement essay on the discussed topic of their choice. Students in English 111 and English 112 incorporated</p>
Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content																							
58.9	62.9	-4	Critical Thinking	III	Evaluate hypotheses																							
59.6	60.6	-1	Critical Thinking	III	Recognize an assumption																							
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General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings						Use of Results to Improve Outcomes
<p>Use sources to develop rigorous arguments and analyze problems. Use deductive and inductive reasoning to draw conclusions based on data.</p>	<p>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>2. A random sample of students enrolled in College Composition I & College Composition II (ENG 111/112) will score, on average, two (minimal proficiency) or higher on 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"> • Use sources to develop rigorous arguments and analyze problems. • Use deductive and inductive reasoning to draw conclusions based on data. <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 extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> • 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. • Evaluate source materials for rigor, validity, and authenticity. 	40.9	43.9	-3	Critical Thinking	III	Evaluate an argument	<p>counter argument and rebuttal in each body paragraph of their major argument essays.</p> <p>2. Pedagogical changes were made in ECO 201 and ECO 202 to improve student learning outcomes in all virtual and remote (real-time) online courses. Students participated in online discussion forums, which provided them opportunities to enhance their critical thinking and analytical reasoning skills.</p>
			47	44.6	2.4	Critical Thinking	III	Discern purpose of a reference	
			42.7	41.4	1.3	Critical Thinking	III	Determine relevance of information	
			37.1	36.5	0.6	Critical Thinking	III	Recognize a valid inference	
			<p>2. Target met: Students in ENG 111 scored, on average, a 2.44. ENG 112 artifacts are not scored until Fall 2021 and Spring 2019 data is not available due to COVID-19.</p> <p>3. Target met: Students in ECO 201 scored an average of 75%.</p>						

SUMMARY CONCLUSIONS: In working with workforce development and transfer institutions, critical thinking is consistently at the top of the list of desired competencies for employees and students. It is often difficult to define, but research affirms that active learning and student engagement positively impact student outcomes. During 2020-21 most general education instruction was delivered online due to the COVID-19 pandemic. Simultaneously, there were directives to ensure regular and substantive interactions in online courses. These interactions support critical thinking opportunities and policies and processes will continue to be reviewed and implemented to provide additional learning opportunities.

INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:

DATE COMPLETED: 11/30/2021

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2020-21

Central Virginia Community College

PROGRAM: General Education – Professional Readiness

NAME OF PROGRAM COORDINATOR: Kimberly French (frenchk@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,
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- 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. Connection
- 2. Entry
- 3. Progression
- 4. Completion
- 5. Affordability and Sustainability

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>Recognize appropriate workplace and classroom habits, demeanor, and behavior. Identify the qualities of an ethical decision.</p> <p>Collaborate with others on a task to achieve a common goal. Cultivate skills to communicate effectively and professionally.</p> <p>Set goals, and implement a plan for personal, professional, and/or academic achievement.</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"> • Recognize appropriate workplace and classroom habits, demeanor, and behavior. • Identify the qualities of an ethical decision. <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. Target met: Students in SDV 100 scored an average of 92%.</p> <p>2. Target met: Students in CST 100 scored an average of 80%.</p> <p>3. Target met: Students in SDV 100 scored an average of 88%.</p>	<p>1. An annual training of all SDV 100 instructors took place on two separate dates, August 11th in the morning, and August 13th in the evening, to capture all instructors. Several instructors completed professional development in the summer to learn more about teaching in the online environment.</p> <p>2. Due to the transition to online learning as a result of COVID-19, students enrolled in Principles of Public Speaking (CST100) moved to an online environment and successfully presented informative speeches through Zoom.</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 the Career Research Assignment.</p>	<p>the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> • Collaborate with others on a task to achieve a common goal. • Cultivate skills to communicate effectively and professionally. <p>3. Seventy percent (70%) of students enrolled in College Success Skills (SDV 100) will score at least seventy percent (70%) on the Career Research Assignment to measure the extent to which students can perform the following objective:</p> <ul style="list-style-type: none"> • Set goals, and implement a plan for personal, professional, and/or academic achievement. 		<p>3. An annual training of all SDV 100 instructors took place on two separate dates, August 11th in the morning, and August 13th in the evening, to capture all instructors. Several instructors completed professional development in the summer to learn more about teaching in the online environment.</p>

SUMMARY CONCLUSIONS: Professional Readiness is new to CVCC's Gen Ed Competencies. Previously, many of the outcomes were addressed in a cultural and social context. That work continues with these outcomes, but the updated outcomes provide strong examples of the ways in which CVCC students are ultimately prepared to enter the workforce with the ability to work well with others and to be responsible employees. There is a great deal of overlap between the desired outcomes here and civic engagement and written communication. The College Success Skills course that all new students take provides a strong foundation for these concepts and we will continue to identify opportunities to enhance knowledge and skills in these areas.

INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:

DATE COMPLETED: 11/30/2021

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2020-21

Central Virginia Community College

PROGRAM: [General Education – Quantitative Literacy](#)

NAME OF PROGRAM COORDINATOR: [Kathy Thomas \(thomask@centralvirginia.edu\)](mailto:thomask@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,
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- Supporting workforce and economic development through participation in regional organizations and training for new and/or expanding businesses.
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INSTITUTIONAL GOALS (SUPPORTED):

- 1. Connection
- 2. Entry
- 3. Progression
- 4. Completion
- 5. Affordability and Sustainability

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																		
<p>Distinguish between quantitative and qualitative analysis. Identify numerical information presented in relevant equations, graphs, diagrams, tables, and words.</p> <p>Interpret quantitative information to draw relevant conclusions. Evaluate numerical information for usefulness, accuracy, and significance.</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 correctly complete lab assignments that require presenting data in tables and graphs.</p>	<p>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:</p> <ul style="list-style-type: none"> • Distinguish between quantitative and qualitative analysis. • Identify numerical information presented 	<p>1. Target met: CVCC students scored an average of 112 compared to the national average of 111. This data is from Spring 2019. The assessment has not been administered for the last two academic years due to COVID-19. The assessment will resume in 2021-22.</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> <td>74.8</td> <td>65.6</td> <td>9.2</td> <td>Mathematics</td> <td>I</td> <td>Apply formula</td> </tr> <tr style="background-color: yellow;"> <td>66.7</td> <td>70</td> <td>-3.3</td> <td>Mathematics</td> <td>I</td> <td>Data interpretation - find information</td> </tr> </tbody> </table>	Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content	74.8	65.6	9.2	Mathematics	I	Apply formula	66.7	70	-3.3	Mathematics	I	Data interpretation - find information	<p>1. The biology faculty met and discussed options for online teaching (using labs kits, developing our own simulation labs, or “kitchen biology labs,” or something totally different, potentially doing an at-home longer-term project involving genomics, which doesn’t require anything more than a high-speed internet connection. Ultimately, we decided to allow</p>
Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content																	
74.8	65.6	9.2	Mathematics	I	Apply formula																	
66.7	70	-3.3	Mathematics	I	Data interpretation - find information																	

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings					Use of Results to Improve Outcomes	
<p>Calculate and convey information into relevant equations, graphs, diagrams, tables, and words.</p>	<p>3. Students enrolled in Pre-Calculus I and Pre-Calculus II (MTH 161-162) will complete a graded final exam that requires calculating and conveying information as part of Quantitative Literacy.</p>	<p>in relevant equations, graphs, diagrams, tables, and words.</p> <p>2. 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"> Calculate and convey information into relevant equations, graphs, diagrams, tables, and words. <p>3. Seventy percent (70%) of students enrolled in Pre-Calculus I and Pre-Calculus II (MTH 161-162) will score sixty percent (60%) or better on Quantitative Literacy 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"> Calculate and convey information into relevant equations, graphs, 	78.4	73.2	5.2	Mathematics	I	Interpret a trend represented in a graph	<p>each faculty member to choose what would work best for them, but the meeting was an excellent brainstorming session as well as a discussion of the pros/cons of each approach.</p> <p>2. The math department met online and discussed some of the challenges in teaching math courses in an online environment. Math faculty who had experience teaching in the online environment were able to share strategies to promote success.</p>
			74.4	78.3	-3.9	Mathematics	I	Data interpretation - read information	
			76.6	76.9	-0.3	Mathematics	I	Number line	
			85.6	93	-7.4	Mathematics	I	Arithmetic word problem - work units	
			17.3	18.4	-1.1	Mathematics	II	Number line - algebraic manipulation	
			28.8	25.4	3.4	Mathematics	II	Algebraic manipulation - ratio and proportion	
			42.7	43.3	-0.6	Mathematics	II	Arithmetic word problem - units of measurement	
			62.2	53	9.2	Mathematics	II	Draw conclusion from algebraic equations	
			64.4	59.6	4.8	Mathematics	II	Translation to algebraic expression	
			65.5	66.8	-1.3	Mathematics	II	Problems involving sets - properties of numbers	
			62.2	65.4	-3.2	Mathematics	II	Algebraic word problem - system of equations	
			65.8	70.1	-4.3	Mathematics	II	Arithmetic word problem - ratio and proportion	
			8.3	7.6	0.7	Mathematics	III	Data interpretation - percent change	
			8.1	7.5	0.6	Mathematics	III	Word problem - algebraic expression	
			18	17.6	0.4	Mathematics	III	Percent change - ratio and proportion	
			20.7	14.4	6.3	Mathematics	III	Word problem - logarithmic function	
27.9	25.5	2.4	Mathematics	III	Word problem - sampling				
27	23.5	3.5	Mathematics	III	Exponential function				

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings					Use of Results to Improve Outcomes	
		diagrams, tables, and words.	36.9	44	-7.1	Mathematics	III	Word problem - algebraic equation	
			70	70.5	-0.5	Mathematics	III	Exponential functions	
			66.4	68.6	-2.2	Mathematics	III	Solve problems involving inequalities	
			<p>2. Target met: 78% of students in BIO 101 answered the questions correctly. Due to COVID-19 BIO 101 and 102 were offered online. BIO 101 was able to be assessed in the online format, but BIO 102 was not.</p> <p>3. Target partially met: 94% of students in MTH 161 scored 60% or above while just 67% of students in MTH 162 scored 60% or above.</p>						

SUMMARY CONCLUSIONS: The COVID-19 pandemic prevented most in-person instruction and tutoring. The initial transition to a virtual environment provided opportunities for innovation to continue to deliver quality instructional opportunities and support services. Technology was enhanced for both faculty and for students. Virtual real-time sessions for tutoring and for courses allowed interaction that wasn't apparent in an asynchronous course. Students still faced challenges as the community worked to provide adequate technological access. Quantitative concepts were challenging before the pandemic. The impact of the year will be monitored and additional student support will be a priority.

INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS:

DATE COMPLETED: 11/30/2023

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2020-21

Central Virginia Community College

PROGRAM: **General Education – Scientific Literacy**

NAME OF PROGRAM COORDINATOR: **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. Connection
- 2. Entry
- 3. Progression
- 4. Completion
- 5. Affordability and Sustainability

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																		
Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge.	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. 2. Students enrolled in General Biology I-II (BIO 101/102) will answer questions in a common summative assessment that	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: <ul style="list-style-type: none"> • Identify the components of scientific inquiry 	<p>1. Target met: CVCC students scored an average of 114 compared to the national average of 113. This data is from Spring 2019. The assessment has not been administered for the last two academic years due to COVID-19. The assessment will resume in 2021-22.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <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>Natural Sciences</td> <td>100 to 130</td> <td>114.0</td> <td>114.52</td> <td>113 to 116</td> <td>5.32</td> <td>110</td> <td>115</td> <td>119</td> </tr> </tbody> </table> <p>2. Target met: 82% of students in BIO 101 answered the questions correctly. Due to COVID-19 BIO 101 and 102 were offered online. BIO 101 was able to be assessed in the online format, but BIO 102 was not.</p>		Possible Range	National* Mean Score	Mean Score	95% Confidence Limits* for Mean	Standard Deviation	25th Percentile	50th Percentile	75th Percentile	Natural Sciences	100 to 130	114.0	114.52	113 to 116	5.32	110	115	119	1. The biology faculty met during the Summer 2020 term and discussed options for online teaching (using lab kits, developing our own simulation labs, or “kitchen biology labs,” or something totally different, potentially doing an at-home longer-term project involving genomics, which doesn’t require anything more than a
	Possible Range	National* Mean Score	Mean Score	95% Confidence Limits* for Mean	Standard Deviation	25th Percentile	50th Percentile	75th Percentile														
Natural Sciences	100 to 130	114.0	114.52	113 to 116	5.32	110	115	119														

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
<p>Design an experiment to test a hypothesis.</p> <p>Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings.</p>	<p>require identifying components of scientific inquiry.</p> <p>3. 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>4. 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>(observation, hypothesis, 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 correctly answer Scientific Literacy questions on the end-of-course examination to measure the extent to which students can perform the following objectives:</p> <ul style="list-style-type: none"> • Identify the components of scientific inquiry (observation, hypothesis, independent variable, dependent variable, methodology, results, and conclusions) leading to evidence-based knowledge. <p>3. Seventy percent (70%) of students enrolled in General Biology I-II (BIO 101/102) will correctly</p>	<p>3. Target met: 89% of BIO 101 students enrolled in General Biology I-II (BIO 101-102) completed the formative Scientific Literacy assessment assignments satisfactorily during the 2020-21 assessment cycle.</p> <p>4. Target met: 75% of students enrolled in General Biology I (BIO 101) correctly completed the formative Scientific Literacy assignments during the 2020-21 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>high-speed internet connection). Ultimately, we decided to allow each faculty member to choose what would work best for them, but the meeting was an excellent brainstorming session as well as a discussion of the pros/cons of each approach.</p>

General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings	Use of Results to Improve Outcomes
		<p>complete formative Scientific Literacy assignments satisfactorily to measure the extent to which student perform the following objective:</p> <ul style="list-style-type: none"> • Design an experiment to test a hypothesis. <p>4. Seventy percent (70%) of students enrolled in General Biology I-II (BIL 101/102) will complete formative Scientific Literacy assignments satisfactorily to measure the extent to which students perform the following objective:</p> <ul style="list-style-type: none"> • Conduct an experiment to test a hypothesis, analyze the results, and communicate the findings. 		

SUMMARY CONCLUSIONS: The COVID-19 pandemic presented challenges for the delivery of science instruction when in-person courses and labs transitioned to a primarily virtual environment. Faculty in the sciences were also involved in the work of Transfer Virginia, which is an effort to align courses across Virginia for transfer to Virginia's colleges and universities. These course designs create common student learning outcomes and create opportunities for course redesign and innovation that enhances teaching and learning.

INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS: N/A

DATE COMPLETED: 11/30/2021

INSTITUTIONAL EFFECTIVENESS ANNUAL REPORT – 2020-21

Central Virginia Community College

PROGRAM: General Education – Written Communication

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. Connection
- 2. Entry
- 3. Progression
- 4. Completion
- 5. Affordability and Sustainability

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>Identify key components of sentence and paragraph structure. Discern the purpose and context of a variety of written communications and their intended audience.</p> <p>Construct sentences, paragraphs, essays, and documents with clear, concise, and appropriate</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 College Composition I & II (ENG 111/112) complete a rubric graded writing assignment each term.</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"> • Identify key components of sentence and paragraph structure. 	<p>1. Target met: CVCC students scored an average of 113 compared to the national average of 112. This data is from Spring 2019. The assessment has not been administered for the last two academic years due to COVID-19. The assessment will resume in 2021-22.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <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</td> <td>85.3</td> <td>-1.3</td> <td>Writing</td> <td>I</td> <td>Appropriate connector</td> </tr> <tr> <td>79.1</td> <td>79.3</td> <td>-0.2</td> <td>Writing</td> <td>I</td> <td>Recognize incorrect word choice</td> </tr> <tr style="background-color: yellow;"> <td>80.4</td> <td>84.2</td> <td>-3.8</td> <td>Writing</td> <td>I</td> <td>Recognize agreement</td> </tr> <tr style="background-color: yellow;"> <td>71.2</td> <td>73.6</td> <td>-2.4</td> <td>Writing</td> <td>I</td> <td>Recognize grammatical correction</td> </tr> <tr> <td>52.3</td> <td>41.9</td> <td>10.4</td> <td>Writing</td> <td>I</td> <td>Order sentences in a paragraph</td> </tr> <tr style="background-color: yellow;"> <td>31.4</td> <td>38.7</td> <td>-7.3</td> <td>Writing</td> <td>I</td> <td>Recognize incorrect adjective comparison</td> </tr> </tbody> </table>	Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content	84	85.3	-1.3	Writing	I	Appropriate connector	79.1	79.3	-0.2	Writing	I	Recognize incorrect word choice	80.4	84.2	-3.8	Writing	I	Recognize agreement	71.2	73.6	-2.4	Writing	I	Recognize grammatical correction	52.3	41.9	10.4	Writing	I	Order sentences in a paragraph	31.4	38.7	-7.3	Writing	I	Recognize incorrect adjective comparison	<p>1. The English Department changed the number of mandate essays in ENG 111/ENG 112 from four to three. Faculty used the additional instruction and feedback time per essay to allow greater time for the writing process for the major essay. The increased flexibility in the number of required essays allowed students to better adapt to the</p>
Percent (%) Correct CVCC	Percent (%) Correct National	Difference	Skill Area	Proficiency Level	Type of Content																																									
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General Education Student Learning Outcome	Assessment Measure	Target Goals	Results and Findings						Use of Results to Improve Outcomes
<p>language according to conventional English usage, grammar and mechanics.</p> <p>Use clear, appropriate, and relevant language to convey or support a main idea or hypothesis with evidence.</p>		<ul style="list-style-type: none"> Discern the purpose and context of a variety of written communications and their intended audience. 	75.6	76.7	-1.1	Writing	II	Recast an existing sentence	<p>online learning environment, mitigating workload and stress, and increased the time allowed for faculty feedback and instruction for each essay.</p> <p>2. The English faculty began work to devise a shared rubric used to facilitate instruction and improve student understanding of expectations in hopes of improving student performance.</p>
		66.4	67.2	-0.8	Writing	II	Recognize agreement		
		56.1	58	-1.8	Writing	II	Recognize grammatical correction		
		52.3	53.7	-1.4	Writing	II	Recognize coordination		
		55.3	53.2	2.1	Writing	III	Recognize correct construction		
		56.2	52.5	3.7	Writing	III	Recognize correct usage		
		49.5	45.7	3.8	Writing	III	Recognize inappropriate idiom		
		31.5	39	-7.5	Writing	III	Recognize inappropriate parallelism		
		<p>2. A random sample of students enrolled in College Composition I & II (ENG 111/112) will score, on average, two (minimal proficiency) or higher on 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"> Use sources to develop rigorous arguments and analyze problems. Use deductive and inductive reasoning to draw conclusions based on data. 			<p>2. Target met: Students in ENG 111 scored, on average, a 2.44. ENG 112 artifacts are not scored until Fall 2021 and Spring 2019 data is not available due to COVID-19.</p>				

SUMMARY CONCLUSIONS: Written communication student learning outcomes support critical thinking, civic engagement, and professional readiness. A major assessment for the college is the English Department's Big Read that is conducted each fall for College Composition I and each spring for College Composition II. Those results are disaggregated by instructor type and instructional modality. It became very clear that there were significant impacts for learners during the COVID-19 pandemic. As we work to emerge from that difficult time, faculty and staff will identify opportunities to provide support for learners both in an out of classrooms.

INITIATIVES FOR NEXT CYCLE WITH BUDGETARY IMPLICATIONS: N/A

DATE COMPLETED: 11/30/2021