NOVA | Northern Virginia Community College

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

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Office of Institutional Effectiveness and Student Success

The purpose of the Office of Institutional Effectiveness and Student Success is to conduct analytical studies and provide information in support of institutional planning, policy formulation, and decision making. In addition, the office provides leadership and support in research-related activities to members of the NOVA community engaged in planning and evaluating the institution's success in accomplishing its mission.

When citing data from this report, the Northern Virginia Community College (NOVA) Office of Institutional Effectiveness and Student Success must be cited as the source.

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Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Introduction

In 2017-2018, Northern Virginia Community College (NOVA) implemented course embedded assessment of General Education Core Competencies, which NOVA calls "Core Learning Outcomes." Prior to 2017-2018, Virginia Community College System (VCCS) required NOVA to assess General Education Core Competencies using standardized assessments chosen by the VCCS. NOVA decided to implement course embedded assessment, a direct measure using students' actual work or student performance, in 2017-18 based on recommendations from NOVA's Ad Hoc Committee on General Education Assessment established in Spring 2016 and State Council of Higher Education for Virginia (SCHEV) *Policy on Student Learning Assessment and Quality in Undergraduate Education* adopted in July 2017.[1] SCHEV policy requires that every Virginia public institution of higher education assess six general education competencies at least once in a six-year period. Four core competencies are mandated by SCHEV to be assessed by all institutions: Critical Thinking, Written Communication, Quantitative Literacy, and Civic Engagement. Two additional educational competencies, based upon SCHEV's guidelines, were to be selected by the institutions themselves. The VCCS selected Professional Readiness and Scientific Literacy as their two additional core competencies.[2] Therefore, NOVA's curriculum includes six general education core competencies, called Core Learning Outcomes, that students attain throughout their educational program at NOVA.

The Ad Hoc Committee on General Education Assessment recommended NOVA start course embedded assessment by benchmarking how educational programs and disciplines are currently assessing Core Learning Outcomes (CLOs). Two CLOs, Critical Thinking and Quantitative Literacy, were chosen to be assessed across the curriculum based on best practice.[3] In Spring 2018, the College requested associate degree programs, standalone certificates, and disciplines without degrees to assess either Critical Thinking or Quantitative Literacy in a course that aligns with the competency chosen using a common assessment method course-wide. The faculty of each program/discipline determined which Core Learning Outcome (CLO) they would assess for 2017-2018, how they would operationalize the CLO, and a common assessment method. At the end of the planning and evaluation cycle, each program/discipline analyzed and documented the results of the assessment activities. Based on the results, programs/disciplines created actions to seek improvements to assessment and student learning for these Core Learning Outcomes.

The assessment process at NOVA is faculty-driven as per best practice. As Tables 1 and 2 make clear, the planning and evaluation process engages a significant number of teaching faculty, academic deans, and provosts. Table 1 details the Pathway Provosts, Deans, and Program Lead Faculty responsible for compiling their program's 2017-2018 Core Learning Competency Assessment Report. Table 2 lists Pathway Provosts, Deans, and Discipline Chairs/CLO Contacts responsible for compiling their discipline's 2017-2018 Core Competency Assessment Report. Such widespread faculty participation is not only in compliance with *SACSCOC Principles of Accreditation*, but is also integral to maintaining a culture of assessment and promoting data-driven decision-making.[4]

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[1] State Council of Higher Education for Virginia. *Policy on Learning Assessment and Quality in Undergraduate Education.* Richmond: SCHEV, 2017. Digital.
[2] Virginia Community College System. "General Education, Section 5.0.2." *Policy Manual,* 2019. Digital.
[3] Eggen, Theo and Bernard Veldkamp. "A General Framework for the Validation of Embedded Formative Assessment." *Journal of Educational Measurement* (2019): 1-18. Digital. Gerretson, Helen and Emily Golson. "Introducing and Evaluating Course-Embedded Assessment in General Education." *Assessment Update* 16.6 (2004): 4-6. Digital. Garfolo, Blaine, et al. "The Use of Course Embedded Signature Assignments and Rubrics in Programmatic Assessment." *Academy of Business Journal* 1.1 (2016): 8-20. Digital. Kumar, Rita, et al. "Purposeful Assessment Design: Aligning Course-Embedded Assessment with Program-Level Learning Goals." *Business Education Innovation Journal* 10.1 (2018). Digital.
[4] Carpenter, Rowanna and Celine Fitzmaurice. "Assessment and Faculty Support: Fostering Collegial Community to Strengthen Professional Practice." *Journal of General Education.* 67.1-2 (2018): 90-108. Digital. Elliott, Robert and Diane Oliver. "Linking Faculty Development to Community College Student Achievement: A Mixed Methods Approach." *Community College Journal of Research and Practice.* 40.2 (2016). Digital. Nat'l Institute for Learning Outcomes Assessment. "What Faculty Unions Say About Student Learning Outcomes Assessment." 2011. Digital.

This report is a compilation of 45 Critical Thinking course embedded assessment reports completed in 2017-2018. VCCS Policy: General Education (5.0.2) defines 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.”[5] This report presents the varied assessment methods and targets utilized by programs/disciplines, the assessment results and analysis, and the ways in which the results were used to seek improvement as reported in the *Annual Planning and Evaluation Report (APER) for Instructional Programs*. It is one of two Core Learning Competency Assessment Reports completed for the 2017-2018 cycle. The second Core Learning Competency Assessment Report for 2017-2018 is a compilation of the Quantitative Literacy assessments. Each of these documents provides the CLO assessment reports for degree programs and standalone certificates first, followed by disciplines without degrees, and each section is presented alphabetically by program/discipline name.

[5] Virginia Community College System. "General Education, Section 5.0.2." *Policy Manual,* 2019. Digital.

Critical Thinking
Core Learning Competency Assessment Report: 2017-2018
Submitted by Instructional Programs/ Select Certificates: 2017-2018

Table 1. Program/Certificate Pathway Provost, Deans, and SLO Lead Faculty: 2017-2018 Core Competency Assessed

Pathway Provost & Dean	Program/Certificate	SLO Lead Faculty	Core Competency	
			CT	QL
Business and Hospitality Management, Annette Haggray, AL Ivy Beringer, AL	Accounting, A.A.S.	Rujuta Panchal, LO	X	
	Business Administration, A.S.	Mohammad (Kabir) Jamal, AL		X
	Business Management, A.A.S.	Mohammad (Kabir) Jamal, AL		X
	Contract Management, A.A.S.	Charles Taylor, WO		X
	Hospitality Management, A.A.S.	Jill Guindon-Nasir, AN	X	
	Marketing, A.A.S.	Judy McNamee, AN		X
Education and Public Service, Molly Lynch, MA Evette Hyder-Davis, MA	Administration of Justice, A.A.S.	Jo Ann Short, AN	X	
	Drivers Education Career Studies Certificate	Nicole Mancini, MA	X	
	Early Childhood Development, A.A.S.	Susan Johnson, LO	X	
	Paralegal Studies, A.A.S.	Joyce McMillan, AL	X	
	Social Sciences, A.S. Teacher Educ. Specialization	Ashley Wilkins, MA	X	
	Substance Abuse Rehab. Counselor Certificate	Chandell Miller, AL	X	
Engineering and Applied Technology, Sam Hill, WO Abe Eftekhari, AN	Air Conditioning & Refrigeration, A.A.S.	Martin Kang, WO		X
	Architecture Technology, A.A.S.	Armen Simonian	X	X
	Automotive Technology, A.A.S.	Laura Garcia-Moreyra, AL	X	
	Construction Management Technology, A.A.S.	Siamak Ghorbanian, AL		X
	Engineering, A.S.	Rudy Napisa, AN		X
	Welding: Basic Techniques Career Studies Certificate	Matthew Wayman, MA	X	
General Studies, General Education, Global Studies, AVP Sharon Robertson, AN Barbara Hopkins, AN	General Studies, A.S.		X	X
Health Sciences, Nicole Reaves, ME Shelly Powers, ME	Dental Assisting A.A.S.	Lisbeth Shewmaker, ME	X	
	Dental Hygiene, A.A.S.	Marina McGraw, ME		X
	Diagnostic Medical Sonography, A.A.S.	Leigh Giles-Brown, ME	X	
	Emergency Medical Services, A.A.S.	Gary Sargent, ME		X
	Health Information Management, A.A.S.	Jacqueline Gibbons, ME	X	
	Medical Laboratory Technology, A.A.S.	Maria Torres-Pillot, ME	X	
	Occupational Therapy Assistant, A.A.S.	Megan Cook, ME	X	
	Personal Training Career Studies Certificate	Dahlia Henry-Tett, MA	X	
	Phlebotomy Career Studies Certificate	Maria Torres-Pillot, ME	X	
	Physical Therapist Assistant, A.A.S.	Jody Gundrum, ME	X	
	Radiography, A.A.S.	Jarice Risper, ME	X	
	Respiratory Therapy, A.A.S.	Donna Oliver-Freeman, ME		X
	Veterinary Technology, A.A.S.	Tregel Cockburn, LO	X	

Pathway Provost & Dean	Program/Certificate	SLO Lead Faculty	Core Competency	
			CT	QL
Information and Engineering Technologies, Chad Knights, AN Paula Ford (Interim), WO	Cybersecurity, A.A.S.	Margret Leary, AL	X	
	Engineering Technology, A.A.S.	Rudy Napisa, AN		X
	Information Technology, A.S.	Moses Niwe, AL		X
	Information Systems Technology, A.A.S.	Moses Niwe, AL		X
Languages, Pamela Hilbert, AN Jennifer Daniels, AN	American Sign Language to Eng. Interpretation	Paula Reece, AN	X	
	Professional Writing Certificate	Jennifer Nardacci, AN	X	
Life Sciences, Julie Leidig, LO, Diane Mucci, MA	Biotechnology, A.A.S.	Xin Zhou, MA	X	
	Horticulture Technology, A.A.S.	Anders Vidstrand, LO	X	
Liberal Arts and Communications, Pamela Hilbert, AN Jimmie McClellan, AL	Liberal Arts, A.A.		X	X
Mathematics and Computer Science, Sam Hill, WO Alison Thimblin, WO	Computer Science, A.S.	Larry Shannon, AN	X	
	Science, Mathematics Specialization	Martin Bredeck, AL		X
Nursing and Surgical Technologies, Nicole Reaves, ME, Marsha Atkins, ME	Nursing, A.A.S.	Brenda Clark, ME	X	
Physical Sciences, Julie Leidig, LO, Barbara Canfield, LO	Science, A.S.	Mary Vander Maten, AN		X
Social Sciences, Molly Lynch, MA, Katherine Hitchcock, LO	Public History & Historic Preservation Career Studies Certificate	Marc Dluger, LO	X	
	Social Sciences, A.S.		X	X
	Social Sciences, A.S. Geospatial Specialization	Michael Harman, LO	X	
Visual, Performing and Media Arts, Annette Haggray, AL, David Epstein, WO	Fine Arts, A.A., Photography Specialization	Gail Rebhan, WO	X	
	Graphic Design, A.A.S.	Dwayne Treadway, LO		X
	Interior Design, A.A.S.	Kristine Winner, LO		X
	Music, A.A., A.A.A. Specialization	Lisa Eckstein, AL	X	
	Music Recording Technology Certificate	Sanjay Mishra, LO	X	
	Photography and Media, A.A.S.	Aya Takashima, AL	X	
	Visual Art, A.F.A. (Fine Arts, A.A. in 2017-2018)	Fred Markham, AL	X	

Critical Thinking
Core Learning Competency Assessment Report: 2017-2018
Submitted by Disciplines without Degrees or Certificates

Table 2. Discipline Pathway Provosts, Deans, and Department Chairs/CLO Contact: 2017-2018 Report

Pathway Provost & Dean	Discipline	Faculty Department Chair	Core Competency	
			CT	QL
Life Sciences: Julie Leidig, LO, Diane Mucci, MA	Biology[6]	Karla Henthorn, AN	X	
Physical Sciences: Julie Leidig, LO, Barbara Canfield, LO	Chemistry	Pirabalini Swaminathan (Chair), AN and Katherine Burton, AL: SLO/CLO Contact		X
	Geology	William Bour, LO		X
	Physics	Tatiana Stantcheva (Chair), AL and Francesca Viale, LO: SLOs/CLO Contact	X	
Social Sciences: Molly Lynch, MA, Katherine Hitchcock, LO	Economics	Kiet Quach, AN	X	
	Geography*	Melinda Alexander, AL	-	
	History	Tom Rushford, AN	X	
	Political Science[7]	Jack Lechelt, AL		
	Psychology*	Assessment Committee: Deanna DeGidio, AN, Chair and Karen Livesey, AN; Joan Passino, AN	-	
	Sociology	Virginia D'Antonio, WO and SLOs: Nicole Hindert, AL	X	
Mathematics and Computer Science: Sam Hill, WO, Alison Thimblin, WO	Mathematics	Martin Bredeck, AL		X
Languages: Pamela Hilbert, AN Jennifer Daniels, AN	English	Chris Kervina, AN	X	
	World Languages[8] Arabic Chinese French German Italian Japanese Korean Latin Russian Spanish	Martha Davis, AL	-	
Molly Lynch, MA and Ellen Fancher-Ruiz, AN	SDV	Margarita Martinez, AN	X	

* Report not received.
6 Assessed Scientific Literacy, as well as Critical Thinking.
7 Piloted Civic Engagement assessment.
8 Assessed Written Communication, instead of Critical Thinking.

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- ADMINISTRATION OF JUSTICE, A.A.S. 2
- AMERICAN SIGN LANGUAGE TO ENGLISH INTERPRETATION, A.A.S. 4
- ARCHITECTURE TECHNOLOGY, A.A.S. 5
- AUTOMOTIVE TECHNOLOGY, A.A.S. AND EMISSIONS SPECIALIZATION 6
- BIOTECHNOLOGY, A.A.S. 8
- COMPUTER SCIENCE, A.S. 9
- CYBERSECURITY, A.A.S. 10
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- DIAGNOSTIC MEDICAL SONOGRAPHY, A.A.S. 12
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Program and Select Certificates

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Accounting, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed for persons who seek employment in the accounting field or for those presently in accounting who wish to increase their knowledge and update their skills. The occupational objectives include accounting trainee, accounting technician, junior accountant, and accountant.

<table>
<tr><th>Core Learning Outcome</th><th>Evaluation Methods</th><th>Assessment Results</th><th>Use of Results</th></tr>
<tr>
<td>CLO: Critical Thinking:
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Describe and make distinctions between various accounting methods under U.S. GAAP and international financial reporting standards (IFRS).

[X] CT</td>
<td>Intermediate Accounting II
ACC 222</td>
<td>Semester/year data collected: Spring 2018
Target: 70% for individual questions and 70% for overall SLO assessment. Overall SLO assessment score is 81% this year.
Results by In-Class, ELI, Dual Enrollment:
Previous year’s data by campus is not available. (Specify N/A where not offered.)
<table>
<tr><th>Results by Campus/ Modality</th><th>Spring 2018: Percent ≥ Target</th></tr>
<tr><td>AL</td><td>58</td></tr>
<tr><td>AN</td><td>0</td></tr>
<tr><td>MA</td><td>N/A</td></tr>
<tr><td>ME</td><td>N/A</td></tr>
<tr><td>LO</td><td>98</td></tr>
<tr><td>WO</td><td>N/A</td></tr>
<tr><td>ELI</td><td>0</td></tr>
<tr><td>DE*</td><td>N/A</td></tr>
<tr><td>Total</td><td>78%</td></tr>
</table>
*Dual-enrollment
Results by CLO Criteria:
<table>
<tr><th></th><th>Spring 2018</th><th>Spring 2015</th></tr>
<tr><th></th><th>% of Students ≥ Target</th><th>% of Students ≥ Target</th></tr>
<tr><td>1.</td><td>83</td><td>88</td></tr>
<tr><td>2.</td><td>69</td><td>56</td></tr>
<tr><td>3.</td><td>86</td><td>83</td></tr>
<tr><td>4.</td><td>76</td><td>71</td></tr>
<tr><td>Total</td><td>78.5%</td><td>74.5%</td></tr>
</table>
Mean Overall Score on SLO Assessment
<table>
<tr><th>Semester</th><th>Spring 2018</th><th>Spring 2015</th></tr>
<tr><td>Mean Score</td><td>81%</td><td>74%</td></tr>
</table>
Spring 2015
Current results improved:
[x] Yes
The Spring 2018 score is significantly improved compared to Spring 2015.

Strengths by Criterion/ Question/Topic: Topics covered in questions 1 and 3 are meeting the expectation of competency level.

Weaknesses by Criterion/ Question/Topic: Topics covered in questions 2 and 4, need improvement.</td>
<td>Previous action(s) to improve CLO if applicable:
N/A

Target Met:
[x] Yes

Based on recent results, areas needing improvement:
Question 2 will be rephrased in the next assessment to improve clarity. The subcomponent (distinctions between IFRS and GAAP) is at the appropriate level of competency.

Current actions to improve CLO based on the results: It is extremely important for all the campuses to participate in this CLO assessment when offered and collect data for analysis. At the Spring 2019 meeting, the cluster discussed improving CLO assessments for higher level accounting classes. The cluster will have details in the Fall 2019 meeting.

Next assessment of this CLO:
Spring 2020</td>
</tr>
</table>

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Administration of Justice, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver excellent in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The Administration of Justice program offers academic opportunities to students desiring to enter various phases of the Criminal Justice System and security related fields.

Core Learning Outcomes

Critical Thinking (CT)

Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: The CT proficiencies identified for the paper were: Students will demonstrate the ability to:
2.1 discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from given data;
2.2 recognize parallels, assumptions or presuppositions in any given source of information
2.3 evaluate the strengths and relevance of arguments on a particular question or issue;
2.4 weigh evidence and decide if

Evaluation Methods

Organized Crime (OC) ADJ 216

In Fall 2017, students were required to write a research paper incorporating subsections 2.1, 2.2, 2.3 and 2.4 critical thinking skills from CLO CT. The subsections were correlated to a rubric that addressed 8 attributes of Organized Crime. See Attachment 1 for paper directions and rubric. Students analyzed each attribute using the CLO CT subsections and professors graded according to a rubric provided as Attachment 1 to this report. The attributes of OC which correlated to CT 2.1, 2.2, 2.3 and 2.4 were as follows:

1.OC has no political goals seeking only money
2.OC is hierarchical
3.OC has limited or exclusive membership
4.OC constitutes a unique subculture
5.OC perpetuates itself
6.OC exhibits a willingness to use illegal violence
7.OC is monopolistic
8.OC is governed by explicit rules and regulations

Sample size: (Specify N/A where not offered).

Campus/ Modality	# Sections Offered	# Sections Assessed	# Students Assessed
AL	N/A	N/A	N/A
AN	1	1	13
MA	1	1	14
ME	N/A	N/A	N/A
LO	N/A	N/A	N/A
WO	1	0	0
DE*	N/A	N/A	N/A
ELI	N/A	N/A	N/A
Total	**3**	**2**	**27**

*Dual-enrollment

Assessment Results

Semester/year data collected: Fall 2017
Number of sections 2
Campuses: AN, MA
Enrolled number of Students: 29

Current results improved if applicable:
Not Applicable – see note below*
[ ] Yes [ ] No [ ] Partially

Target: 80% success rate for each subsection correlated with each attribute

Results: Overall 86% success rate*, see individual results correct per attribute. Professors individually graded each attribute (see rubric in attachment). Overall success rates reflect averages across campuses, rather than by individual campus.

Results by SLO Criteria:

Attribute	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Introduction	86	86	86	76	86	86	86	86
Deduction	86	86	86	76	86	86	86	86
Analysis	86	86	86	76	86	86	86	86
Inference	86	86	86	76	86	86	86	86
Evaluation	86	86	86	76	86	86	86	86
Total	86	86	86	76	86	86	86	86

This is the first time the CLO was piloted so there is no clear comparison from previous reports that used multiple choice questions. This report will serve as a comparison when it is reassessed by 2021. Overall, the critical thinking subsections correlated to each attribute were successfully measured with the following overall grade results measuring 86% with grades of A and B. Students who did not complete the assignment received an F and those who minimally attended classes and/or answered the essays (see rubric) received a D. Therefore, the

Use of Results

Based on recent results areas needing improvement:
Overall, the performance met expectations of the CLO. This was a pilot assessment for CLO CT. Research papers were used, however essays might have been easier to assess. The ADJ Faculty Discipline believes an essay specific to the CT subsections, with limited "attributes" used in this pilot study might have been an easier, overall assessment of CTs. Research papers are more comprehensive than essays and involve additional areas to assess the overall grades. An essay can be more refined to specific learning objectives with that particular CLO.

Current Actions to improve:
The ADJ Faculty discipline would revise the CT subsections of this CLO for papers written in the future, as they would correlate to different learning objectives for other courses.
This course is not offered through an online venue, although several proposals were sent to ELI. It has not yet been selected for incorporation to offer online. Once NOVA Online approves this course, a future assessment can be reviewed. This course is not offered in DE.

Next Assessment of CLO:
This CLO will be re-assessed again by 2021.

generalizations or conclusions based on the given data are warranted.	A rubric (Attachment A) identified the completeness of answers to each attribute to assess a grade of A, B, C, D or F. Survey Score range assessments: A - Excellent 90-100% B - Very Good 80-89% C - Average 70-79% D - Below Average Below 70% F – Failure	results are not deemed substantively impacted by anyone below a C grade. A= 60% B=26% C=6% D=4% F=4%	

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American Sign Language to English Interpretation, A.A.S.

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Program Purpose Statement: Designed for students who have limited, if any, previous experience with interpreting for Deaf people, this degree program provides the comprehensive training in theory and practical interpreting skills necessary for employment as an educational or community interpreter. Successful completion of this program prepares the student to pursue either a Virginia Quality Assurance Screening Level, or national certification either through the Registry of Interpreters for the Deaf or the Educational Interpreter's Performance Assessment. These credentials qualify the student to interpret in either educational or community settings.

Core Learning Outcome

Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Students will demonstrate the ability to analyze their own interpreting product, identify strengths and at least 2 areas of improvement that will have the greatest impact on their product, and determine a plan for practice outside of the classroom.

[X] CT

Evaluation Methods

Interpreting in Safe Settings INT 237

Direct Measure: In the Final Exam, students are required to write a reflection paper that analyzes their final video as well as their progress throughout the semester. In addition, students are asked to create a realistic plan for the future after graduation. The questions and grading Rubric are provided.

Sample Size: (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed	# Students Assessed
AN only	1	1	9
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A

*Dual-enrollment

Assessment Results

Semester/year data collected: Spring 2018
Target: 90% of students will score 80% or higher overall and on each criterion.

Results:

	Spring 2018
Final Grades	90-100%-7 80-89%- 1 70-79%- 1 60-69%-0 Below 59%- 0

Results by CLO Criteria:

Criteria/ Question Topics	Spring 2018	
	Average Score	% of Students ≥ Target
1	96	100
2	96	100
3	96	100
4	91	89
5	91	89
Total	**94**	**95.6**

This is the first year that this CLO has been assessed.

Strengths by Criterion/ Question/Topic:
Students overall were able to critically evaluate their work. This is a skill that is emphasized throughout the program.

Weaknesses by Criterion/ Question/Topic:
The area that was the weakest related to the students' ability to apply what they know about themselves to predict what challenges they may face in the working world and their internship.

Use of Results

Previous action(s) to improve CLO if applicable: This is the first time that this CLO has been assessed.
Target Met:
[ ] Yes [ ] No [X] Partially

Based on recent results, areas needing improvement:
The program only has two years to teach students a skill that in truth is a life-long learning process. One of the important skills that they must learn is how to look at their work critically, and how to predict what challenges they may face in order to prepare for them. While students were able to critically look at their work, they were not as competent at applying this knowledge to new situations.

Current actions to improve CLO based on the results:
In INT 237, the instructor will introduce more role playing opportunities to give students an opportunity to analyze future situations and apply what they know about their own work to determine the best path towards success.
Next assessment of this CLO: This CLO will be assessed again in 2018-19.

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Architecture Technology, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The Architecture curriculum is designed to prepare students for employment. The graduates will find employment in the field of architecture, construction, and urban design utilizing their construction knowledge, graphic communication and problem solving skills. Students must see their architecture advisor to satisfy individual goals.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Students will be able to describe how buildings are constructed.

[X] CT

[X] QR

Evaluation Methods

Architectural Design and Graphics I & II ARC 231 and ARC 232

Direct Measure: Measured by evaluation of projects produced in our capstone course. Projects were evaluated in 4 areas for each SLO on a scale from 1-4.

1=not demonstrated, 2= marginally demonstrated, 3=well demonstrated, 4=very well demonstrated.

See attached Capstone Course Evaluation forms.

a. Project demonstrates the students' ability to research building materials and methods.
b. Project demonstrates the students' ability to assemble building components.
c. Project demonstrates the students' ability to design construction details.
d. Project demonstrates the students' ability to graphically communicate construction systems.

Sample Size (Specify N/A where not offered)

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# students assessed
AL only	1	1	5
AN only	1	1	6
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A
Total	**2**	**2**	**11**

*Dual-enrollment

Assessment Results

Semester/year data collected: Fall 2017 and Spring 2018

Total of 24 projects were evaluated in December 2017 and May 2018 by two teams, one for each campus, including seven Faculty and Professional Architects and Engineers. The Project evaluation team rated the projects which presented 3.10 for SLO 7 on a scale of 1-4.

Target: The Architecture Cluster has agreed that a Target of 2.5 is acceptable for each of the SLOs with an ultimate goal of 3.0

Results by In-Class, ELI, Dual Enrollment (Specify N/A where not offered)

Results by Campus/ Modality	Spring 2018		Spring 2016	
	Average Score	Percent ≥ Target	Average Score	Percent ≥ Target
AL	2.50	100	2.57	102.8
AN	3.71	148.4	3.46	138.4
Total	**3.1**		**3.0**	

Offered only at AL and AN

Results by CLO Criteria:

Results by CLO Criteria/ Question Topics	Spring 2018		Spring 2016	
	Average Score	% of Students ≥ Target	Average Score	% of Students ≥ Target
a	3.00	50	3.05	50
b	3.14	67	2.97	63
c	3.08	75	2.84	69
d	3.19	83	3.19	83
Total	**3.10**	**68.75**	**3.01**	**66.25**

Current results improved:
[X] Yes [ ] No [ ] Partially

Use of Results

SLO 7 has not been evaluated in 2016-17. Score of 3.10 is slightly higher than last evaluation (2016) score of 3.02. AN has shown a higher score than AL when breaking down our SLOs to evaluate specific criteria and gain more detailed evaluation. We (Architecture Faculty) can now concentrate on the areas that need the most improvement. We have taken into consideration the advice of the Architecture Curriculum Advisory Committee.

By measuring the SLOs through evaluation of the capstone courses, the evaluation includes all other relevant courses, thereby making the evaluation comprehensive and efficient.

Target Met:
[X] Yes [ ] No [ ] Partially

Based on the recent results, areas needing improvement: The result is above ultimate goal of 3.0. Though the target has been exceeded, we will continue to make the courses more challenging and also marketable as per recommendations of the Architecture Curriculum Advisory Committee members.

Next assessment of this CLO: May 2020.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Automotive Technology, A.A.S. and Emissions Specialization

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This curriculum is designed to prepare students for full-time employment in the automotive field.

Core Learning Outcomes

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Apply electrical theory using wiring diagrams and schematics to diagnose and repair automotive electrical circuits.

[X] CT

Evaluation Methods

Electricity 2 AUT 242

Direct Measure:
The test questions were updated to include the best understood version of question 5 with an accompanying wiring diagram that highlighted the main components and characteristics of circuits to include: relays, switches, modules, and loads. The questions that targeted fundamental knowledge about circuit voltages and problem-solving abilities were used. Assessment attached. This task was assessed in Electricity 2 where mastery of these skills is expected.

Sample size: (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed	# Students Assessed
AL only	2	2	27
MA only	2	2	22
DE*	1	N/A	N/A
ELI	N/A	N/A	N/A
Total	**5**	**4**	**49**

*Dual-enrollment

Assessment Results

Semester/year data collected: Fall 2017

Target: 80% or higher overall score

Current results improved:
[ ] Yes [ ] No [X] Partially

In Spring 2018, 27 out of 29 students at Alexandria and 22 out of 22 students at Manassas were assessed in all AUT 242 courses - 2 at Alexandria and 2 at Manassas. The average pass rate was 76% for Alexandria and 97% for Manassas.

In the Spring semester, Alexandria did not meet the 80% pass rate, and is above the last cycle's score of 70%. Manassas did meet the 80% pass rate and is slightly below last cycle's score of 98%.

One dual enrolled high school course performed the SLO, but unfortunately gave it to all students in their course, not just the students who were dual enrolled. Therefore, the data was inaccurate and could not be used. The instructor was made aware of the process and will submit clear data for the next SLO assessment.

Previous Data

Question	Fall 2015	Fall 2016	
		AL	MA
1 - Voltage Point W	95%	89%	100%
2 – Voltage Point X	95%	100%	100%
3 – Voltage Point Y	81%	100%	100%
4 – Voltage Point Z	86%	100%	100%
5 – Open Circuit	50%	33%	77%
6 – Corrosion	72%	44%	100%

Use of Results

Previous action(s) to improve SLO: Faculty noticed during the Fall 2015 assessment that students had difficulty with questions 5 & 6 which required the highest level of critical thinking skills, the basis of which is the ability to read wiring diagrams to diagnose a problem and resulted in an overall score of 80%. In the following semesters faculty placed more emphasis on circuit operation without faults and relating symptoms on a work order to electrical flow on a diagram in lecture. Faculty have also increased the amount of basic electrical taught in non-electricity courses.

In the 2016-17 cycle, performance on this skill improved overall to 87% in fall and 84% in spring, although Alexandria scored lower than the pass rate at 78% in the fall and 70% in the spring.

The target was met at Manassas but not Alexandria during our last assessments in Fall 2016 and Spring 2017. There is room for improvement and collaboration for the next assessment.

The following recommendations were agreed upon by faculty during the Fall 2017 cluster. These recommendations will be implemented in all automotive courses by faculty immediately to improve student outcomes in every class and in preparation for the next assessment at the end of Spring 2017:

- Color code diagram during normal operation
- Color Code diagrams during abnormal operation on this and multiple other horn circuits. Should also be done in Electricity 1.
- Electricity 1 should practice color coding normal operation, but also be able to

Question	Spring 2017	
	AL	MA
1 - Voltage Point W	80%	100%
2 – Voltage Point X	80%	100%
3 – Voltage Point Y	72%	100%
4 – Voltage Point Z	80%	96%
5 – Open Circuit	56%	96%
6 – Corrosion	52%	100%

Question	Fall 2017	Spring 2018	
	AL 15	AL 27	MA 22
1 - Voltage Point W	100%	81%	100%
2 – Voltage Point X	100%	81%	100%
3 – Voltage Point Y	81%	74%	100%
4 – Voltage Point Z	100%	78%	100%
5 – Open Circuit	56%	55%	90%
6 – Corrosion	75%	89%	95%
7 - #5 Reworded	56%		
8 - #5 Reworded	69%		

Strengths by Criterion/ Question/Topic:
Students are able to understand what voltages should be present in a normally functioning circuit.

Weaknesses by Criterion/ Question/Topic:
Looking at the data, question 5 still has the lowest score for both campuses, followed by question 6. Given the amount of time spent reviewing the material in class, it is clear students still become confused when visualizing how electricity normally flows through the circuit, then analyzing the symptom the vehicle is experiencing, and finally using those symptoms to conceptualize the possibilities of how the flow of electricity could have been changed.

"diagnose on paper" with color coding during a fault.

- Question number 5 appears to be confusing to many students, so our next goal is to ask the same question in multiple ways to see if the question is worded properly in Fall 2017.

Target Met:
[ ] Yes [ ] No [X] Partially

Based on recent results, areas needing improvement:
Using schematics to diagnose a fault based on symptoms.

Current actions to improve SLO based on the results:
The following recommendations were agreed upon by faculty during the Fall 2018 discipline meeting. These recommendations will be implemented in all Electricity 2 (AUT 242) courses by faculty immediately to improve student outcomes in future courses and for the next assessment at the end of Fall 2018 to collect data for when both campuses are holding courses at the same time.

- Expand our 8 week course offering into a 16 week hybrid course with weekly written assignments on voltage drop, relay and control circuitry.
- Reword question number 5 on the assessment to list the technicians' findings in bullet-point format so students don't miss pertinent information.
- Ensure all sections are practicing and proctoring the assessment the same way.

Next assessment of this SLO: Fall 2021

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Biotechnology, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This program is designed to prepare graduates for employment in entry-level positions at biotechnology and pharmaceutical companies, as laboratory, research, or manufacturing technicians. Coursework will develop an understanding of basic scientific principles in biology and chemistry, and will emphasize laboratory techniques and procedures such as solution and media preparation, DNA purification and analysis, electrophoresis, chromatography, maintenance of cells in culture, and quality control techniques.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Apply the scientific method including: planning an experiment, collecting data, analyzing and interpreting data. **[X] CT**	**Nucleic Acid Methods** BIO 252 Seventeen students were enrolled in BIO 252 in one section at the Manassas campus only. Students were tasked with completing two projects (a molecular cloning project and a DNA sequencing project), documenting the experiments in their scientific lab notebook, and reporting the results in a scientific paper format. The two lab notebook assignments were worth 30 points each. Scores were normalized to a 0-4 point scale. Students were expected to receive an 80% or higher (3 or better) to demonstrate competency. The two scientific papers were worth 50 points each. Scores were normalized to a 0-4 scale. Students were expected to receive an 80% (3 or better) or higher to demonstrate competency. **Sample size**: (Specify N/A where not offered) **Campus/ Modality** | **Total # Sections Offered** | **# Sections Assessed** | **# Students Assessed** MA only | 1 | 1 | 17 DE* | N/A | N/A | N/A ELI | N/A | N/A | N/A **Total** | **1** | **1** | **17** *Dual-enrollment	**Semester/year data collected:** Spring 2017 **Target:** Students were expected to achieve an 80% (score of 3 or above) to demonstrate competency. Seventeen students were enrolled in BIO 252 in one section at the Manassas Campus. Only fifteen students completed both scientific paper assignments. One student submitted no paper at all and one student submitted one paper late. These students were not included in the scientific paper data. Only sixteen students completed both notebook assignments. One student did not submit the DNA sequencing notebook assignment and is therefore not included in the lab notebook data. **Lab Notebook Assignments** • 69% (11/16) of students scored 3 or better. • The average score (n=14) was 3.4. Scientific Papers • 47% (7/15) of students scored 3 or better. • The average score (n=11) was 3.1. Spring 2016 Fourteen students were enrolled in BIO 252. Only thirteen students completed the scientific paper assignment. Two students submitted very similar papers and were docked points as a result. These students were not included in the scientific paper data. Lab Notebook Assignment • 64% (9/14) of students scored 3 or better. • The average score (n=14) was 3.3. Scientific Paper • 18% (2/11) of students scored 3 or better. • The average score (n=11) was 2.9. **Current results improved if applicable:** [X] Yes [ ] No [ ] Partially	1.In the last assessment of this SLO (2015-16), program faculty determined that students needed increased guidance in completing lab notebook assignments and in preparing scientific manuscripts. This was accomplished by improving alignment between the lecture portion of the course and the lab course. Students are now expected to participate in journal club activities in which they dissect and present scientific literature. Students were expected to achieve an 80% (score of 3 or above) for their application of the scientific method. The percentage of students receiving a 3 or better (80%) was only 47% (n=15) for the scientific paper. However, this is an increase of 29 percentage points as compared to the 2015-16 assessment (18%) and an increased average score (3.1) as compared to 2015-2016 (2.9). Student grades not only depend on their application of the scientific method, but also their writing skills. To compensate for this additional variable, a second paper assignment was added and students could use feedback from the first assignment to modify their writing skills. 2.The percentage of students receiving 3 or better (80%) for the lab notebook assignment was 69% (n=16). The average score was 3.4. This is an increase in both metrics from 2015-16: 64% and 3.3, respectively. 3.Due to the improved alignment of the lecture with the laboratory, student performance has increased since the last assessment period. In the future, the assessment method will exclude students' writing skills when assessing their application of the scientific method. **Next assessment of this SLO:** Spring 2019.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Computer Science, A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed primarily for students who wish to transfer to a four-year college or university to complete the baccalaureate degree in Computer Science. The curriculum emphasizes the study of the science of computing and the use of computing in a scientific setting.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:

Demonstrate critical thinking by applying appropriate data structures and Abstract Data Types (ADTs).

[X] CT

Evaluation Methods

Computer Science II CSC 202

Direct Measure: No direct data was available**.**

Other Method: Used final grades from course as a relative indicator of SLO achievement. The final grade was based on programming projects and exams from all Computer Science II, CSC 202 courses.

Sample Size (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed	# Students Assessed
AL	2	2	N/A
AN	8	8	21
MA	5	5	N/A
ME	N/A	N/A	N/A
LO	4	4	N/A
WO	1	1	16
ELI	0	0	N/A
DE*	2	2	N/A
Total	**22**	**22**	**37**

*Dual-enrollment

Assessment Results

Target: 90% of students will score 70% or higher overall

Results by In-Class, ELI, Dual Enrollment (Specify N/A where not offered)**:**

Results by Campus/ Modality	Current Assessment Results Semester/year	
	Average Score	Percent ≥ Target
AL	N/A	88
AN	N/A	79
MA	N/A	71
ME	N/A	NA
LO	N/A	67
WO	N/A	64
ELI	N/A	NA
DE*	N/A	92
Total	**N/A**	**75**

Results by SLO Criteria: No data for individual criteria

Current results improved:
[ ] Yes [x] No [ ] Partially N/A

Strengths by Criterion/ Question/Topic: N/A

Weaknesses by Criterion/ Question/Topic: N/A

Use of Results

Previous action(s) to improve CLO: Not previously assessed.

Target Met:
[ ] Yes [X] No [ ] Partially

Based on recent results, areas needing improvement:
Due to the lack of collected data, no specific areas of concern regarding students were identified.

Current actions to improve CLO based on the results: New SLO lead selected beginning Spring 2019 to coordinate SLO evaluations and methodology**.**

Next assessment of this CLO: Fall 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Cybersecurity, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

A.A.S. in Cybersecurity Program Purpose Statement: This curriculum is designed for those who seek employment in the field of Cybersecurity (information assurance), for those who are presently in IT or a security field and who desire to increase their knowledge and update their skills, and for those who must augment their abilities in other fields with knowledge and skills in information security. The curriculum is mapped to the NSA/DHS Knowledge Units necessary for NOVA's designation as a Center of Academic Excellence.

<table>
<tr><th>Core Learning Outcome</th><th>Evaluation Methods</th><th>Assessment Results</th><th>Use of Results</th></tr>
<tr>
<td>Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Describe current threats and explain how to continuously monitor the threats that may be present in the cyber realm (1, 2, 5, 6)

CT [X]</td>
<td>Internet/Intranet Firewalls and E-Commerce
ITN 263

Cybersecurity faculty coordinated on questions to ask ITN 263 students. These questions not only needed to be consistent with NOVA SLO objectives, but also with NSA CAE2Y designation outcome expectations to describe the differences between symmetric and asymmetric algorithms. Four multiple choice questions were provided. Faculty at all 5 campuses provided these questions at the time the final exam was given.

Topics included:
<table>
<tr><th>#</th><th>TOPICS FOR QUESTIONS</th></tr>
<tr><td>1</td><td>Firewall rule sets</td></tr>
<tr><td>2</td><td>Firewall/network device functionality</td></tr>
<tr><td>5</td><td>Firewall functionality</td></tr>
<tr><td>6</td><td>Threats</td></tr>
</table>
Questions and answers are attached in file SLO Questions and Answers.docx</td>
<td>Data collected: Fall 2017
Target: Students should answer questions with a 70% accuracy rate. This is consistent with CompTIA exam standards.
Data collection: There were 6 sections of ITN 263 offered, including 2 ELI sections via Woodbridge. Of these, 3 sections provided results. Results were received from Alexandria (1 section), Loudoun (1 section), Annandale (0 sections), Manassas (0 sections), and Woodbridge campuses (1 section). ELI courses did not report, it is unknown if they received copies. Manassas did not report as its single section ended before the questions were distributed. Dual enrollment sections were not captured in this report.
Of these 3 reporting sections, one section was not submitted in a format conducive to analysis. The remaining two sections, with a total of 40 students were assessed (23 in one class and 17 in another).
Results by CLO Criteria:
<table>
<tr><th>#</th><th>TOPICS FOR QUESTIONS</th><th>% CORRECT</th></tr>
<tr><td>1</td><td>Firewall rule sets</td><td>27.5 (11/40 students)</td></tr>
<tr><td>2</td><td>Firewall/network device functionality</td><td>62.5 (25/40 students)</td></tr>
<tr><td>5</td><td>Firewall functionality</td><td>67.5 (27/40 students)</td></tr>
<tr><td>6</td><td>Threats</td><td>82.5 (33/40 students)</td></tr>
</table>
Students demonstrated an accuracy rate of .6625 with all of the answers. Firewall functionality questions were answered with more inaccuracies than security basic questions, as the latter topics are covered in multiple courses. This is the first time this topic has been assessed in this course and in this program, so no previous data is available to trend performance.</td>
<td>The results of this assessment revealed significant issues with students being able to configure a firewall. As this was not flagged as a previous issue, no previous remediation was implemented to improve the SLO. This is a topic that is difficult for experienced network administrators to understand.

Areas to be improved: Firewall configuration instruction.

Actions for improvement:
1. An assessment tool is in development and will be implemented in Fall 2019 which will allow this SLO to be assessed on a semester-by-semester basis in greater detail.
2. Other resources are being sought and may need to be developed in-house.

When will the improvements take place: Spring 2018 - The SLO will be reassessed after the development of an automated tool that will enable all of the program outcomes to be assessed on a semester-by-semester basis. This is estimated to take effect in Fall 2019.</td>
</tr>
</table>

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Dental Assisting Program, Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The Dental Assisting Program prepares students to perform chairside assisting skills, dental laboratory and dental practice management procedures, and exposing radiographs. The program prepares students to perform advanced functions as delegated by the Virginia Board of Dentistry.

Core Learning Outcome

Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Understand and demonstrate knowledge of radiation safety measures in order to produce diagnostic radiographic surveys.

CT [X]

Evaluation Methods

Direct Measure: Final Exam
Question Topics:

1. Patient protection
2. Radiographer protection

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# of Students Assessed
ME only	1	1	13
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A
Total	**1**	**1**	**13**

*Dual-enrollment

Assessment Results

Semester/year data collected: Fall 2017
Target: 100% of students will score 75% or higher on question topics.

Results by Campus/ Modality	Fall 2017		Fall 2016	
	Average Score	% of Students ≥ [Target]	Average Score	% of Students ≥ [Target]
ME	85	100 ≥ 75	89	100 ≥ 75
Total	**85**		**89**	

Results by CLO Criteria:

Results by CLO Criteria/ Question Topics	Fall 2017		Fall 2016	
	Average Score	% of Students ≥ [Target]	Average Score	% of Students ≥ [Target]
1	89	100 ≥ 75	88	100 ≥ 75
2	90	100 ≥ 75	86	100 ≥ 75
Total	**89.5**		**87**	

Current results improved:
[X] Yes [ ] No [ ] Partially

Strengths by Criterion/ Question/Topic: Knowledge is critical for application in the clinical setting.

Weaknesses by Criterion/ Question/Topic: Student performance in this area increased from the previous year but there is room for improvement in the content of patient and radiographer protection, and radiation safety issues. Lecture material and laboratory safety measures will be evaluated in the Fall of 2018.

Use of Results

Previous action(s) to improve CLO if applicable: Review test questions and provide rationale.

Target Met:
[X] Yes [ ] No [ ] Partially

Based on recent results, areas needing improvement: Even though the average score was well above the target of 75%, radiation safety is very important for patient and radiographer protection. The material will be reviewed in specific lectures to increase student performance on these exam questions in the lecture portion of the course in the Fall of 2018.

Current actions to improve CLO based on the results: Continue to review and demonstrate radiation safety measures in the lecture and laboratory session.

Next assessment of this CLO:
The SLO will be assessed by the Program Director in the Spring of 2019.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Diagnostic Medical Sonography, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellent, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: Students in the Diagnostic Medical Sonography degree program learn to perform ultrasound of the Abdomen and Small Parts as well as Obstetric and Gynecologic sonography. Upon successful completion of the degree requirements, the student will be eligible to apply to take the American Registry for Diagnostic Medical Sonography (ARDMS) examination(s) leading to credentials as a Registered Diagnostic Medical Sonographer (RDMS®).

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Integrate patient history, current medical condition, and sonographic findings to provide accurate diagnostic information.

[X] CT

Evaluation Methods

Abdominal Sonography DMS 211
Direct Measure: Week 9 Discussion – Topic: Discuss an interesting Abdominal Case Study you observed or took part in during your clinical rotation. Be sure to include all required elements.
Assessment Description: Assignment
Relevant Required Elements
1. Information about patient history
2. Patient presentation signs and symptoms
3. Sonographic description of the findings
4. Post explanation of actual diagnosis, treatment, prognosis
5. Research possible differentials for peer replies

Relevant Rubric Criteria
1. Written Organization
   a. Exceptional – Writing is organized with a logical sequence that is easy to follow. All aspects reflect a high degree of comprehension. (20)
   b. Acceptable – Writing is presented with a basic level of organization that is able to be followed. Topic is addressed in a manner that reflects a basic level of comprehension. (15)
   c. Not Acceptable – Writing lacks proper organization and is difficult to follow. Topic is not addressed or does not demonstrate comprehension. (0)
2. Peer Replies
   a. Exceptional – All peer replies add insight. (20)
   b. Acceptable – Some but not all of the peer replies add insight. (15)
   c. Peer replies do not add insight. (0)

Sample Size (Specify N/A where not offered):

Campus/ Modality	# of Total Sections Offered	# of Sections Assessed	# Students Assessed
ME only	**1**	**1**	**13**
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A
Total	**1**	**1**	**13**

Assessment Results

Semester/year: Spring 2018
Target Overall Score: 15/20 in each relevant criteria

- Percent of Students Meeting Target Score = 84.6
- Percent of Students Below Target Score = 15.4
- Average Student Overall Score = 18.5/20 in Written Organization and 16.5/20 in Peer Replies
- Range of Scores = 0-40

Results by SLO Criteria:

Results by SLO Criteria/ Question Topics	Spring 2018		Spring 2017	
	Average Score	% of Students ≥ 15/20	Average Score	% of Students ≥ 15/20
1. Written Organization	18.5	92.3	19.6	100
2. Peer Replies	16.5	84.6	20	100
Total	**17.5**	**88.45**	**19.8**	**100**

Current results improved:
[ ] Yes [X] No [ ] Partially
Strengths by Criteria/Question Topic: The 2018 class overall did well in the Writing Organization category. This means students had original topic posts that were well organized and that met information criteria for relevant pathology, patient history and presentation as well as sonographic descriptions of the findings.
Weaknesses by Criteria/Question Topic: The 2018 class did poorly with their peer replies. Two students did not submit any and one only submitted one peer reply rather than two. Thus, these students missed out on the opportunity to apply their knowledge of clinical presentations for pathology to determine possible differential diagnoses.

Use of Results

Purpose of Evaluation: To assess student ability to complete an ultrasound examination technical report incorporating all relevant patient history and ultrasound findings to provide accurate diagnostic information.
Previous Action(s) to Improve SLO: This SLO was evaluated in 2016-17. During the Spring 2018 semester, the DMS 212 instructor included a more complete explanation of both high quality and poor quality technical reports in advance of the assignment in order to improve student attention to detail and use of sonographic descriptions.
Target Met:
[ ] Yes [ ] No [X] Partially
Based on Recent Results, Areas Needing Improvement:
Because 3 of the students in the 2018 class either did not complete or partially completed the peer reply portion of the assignment, their critical thinking was limited for this evaluation. Thought their initial posts were well constructed and proved competence in integrating patient data for presentation purposes, the analysis that was required in analyzing peer scenarios that students did not have the full background information for was a crucial part of the critical thinking element of this assignment. Solutions need to be sought so students are unable to simply not complete the assignment fully.
Action Taken by DMS Faculty:
For the next administration of this course in Spring 2020, the DMS 211 faculty will be encouraged to develop examples of discussion replies and peer replies that provide sufficient analysis and detail to satisfy the rubric requirements. These examples will be posted in the online Canvas course and will be addressed during class meeting time.
Next Assessment of this SLO:
This SLO will be evaluated again in 2018-19.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Drivers Education Career Studies Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The Driver Education Career Studies Certificate program is designed for students who wish to become licensed teachers of driver education or maintain qualifications in the state of Virginia.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Students will be able to design a proper behind the wheel driving route.

[X] CT

Evaluation Methods

Instructional Principles of Drivers Education
EDU 214

Direct Measure: All students will design a proper behind the wheel driving route.

1. Diagram
2. School/area you are working at
3. Step by Step Directions
4. Level of Risk Addressed
5. Appropriate
6. Skills being taught

Sample (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed	# Students Assessed
AL	1	1	10
MA	3	3	32
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A
Total	**4**	**4**	**42**

*Dual-enrollment

Assessment Results

Semester/year data collected:

- Summer 2017; Fall 2017; Spring 2018

Results by In-Class, ELI, Dual Enrollment:

Results by Campus/ Modality	Summer 2017/Fall 2017/Spring 2018 (% of students who passed with 100% or above)	
	Average Score	Percent ≥ Target
AL	100	100
MA	100/100/100	100/100/100

Results by CLO Criteria:

Results by CLO Criteria/ Question Topics	Current Assessment Results	
	Average Score	% of Students ≥ Target
1	100%	100%
2	100%	100%
3	100%	100%
4	100%	10%
5	100%	100%
6	100%	100%
Total	**100%**	**100%**

Current results improved:
[X] Yes [ ] No [ ] Partially

Strengths by Criterion/ Question/Topic: This assignment has always been one that the students have completed and is a mandatory part of becoming a driver's education instructor. The instructor models this lesson in class and shows the students the step by step process about how to create this driving route so all the areas of this are a strength.

Weaknesses by Criterion/ Question/Topic: The only weakness may be the limitations of the students in reference to the area surrounding where they plan to work. It may be difficult to create a proper diagram in this case if the person does not know where they plan to work or they are unsure of the area and roads.

Use of Results

Previous action(s) to improve CLO if applicable: We have never assessed this before**.**

Target Met:
[X] Yes [ ] No [ ] Partially

Based on recent results, areas needing improvement: It does not appear that there is any need to improve upon this assignment.

Current actions to improve CLO based on the results: None

Next assessment of this CLO: Fall 2018

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Early Childhood Development, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed for persons who seek employment involving the care and education of young children, or for those persons presently employed in these situations who wish to update and enhance their competencies. Occupational opportunities include, program leaders, supervisors, and/or directors in child development programs.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Students provide self-analysis and reflection on the Program Capstone Project.

[X] CT

Evaluation Methods

Advanced Observation and Participation in Early Childhood/Primary Settings CHD 265

Direct Measure: Assignment Project Reflection - Students provide self-analysis and reflection on the Program Capstone Project.

Provided Rubric Criteria or Question Topics: Directions for assignment and grading rubric are attached.

Other Method (if used): Qualitative data and assessment collected as part of the rubric summary data completed by instructors. Used in analysis/comments.

Sample (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed	# Students Assessed
AL	2	2	30
MA	1	1	13
LO	1	1	9
ELI	N/A	N/A	N/A
DE	N/A	N/A	N/A
Total	**4**	**4**	**52**

*Dual-enrollment

Assessment Results

Semester/year data collected: Spring 2018

Target: 80% of students will score 80% or higher overall on each criterion as well as the overall score.

Results by In-Class, ELI, Dual Enrollment:

Results by Campus/ Modality	Spring 2018	
	Average Score	Percent ≥ Target
AL	78	(2)
MA	67	(13)
LO	86	6

Results by CLO Criteria:

Results by CLO Criteria/ Question Topics	Spring 2018	
	Average Score	% of Students ≥ Target
1.	80%	66%
2.	74%	61%
3.	60%	50%
4.	79%	58%

Current results improved: NA
[ ] Yes [ ] No [ ] Partially

Strengths by Criterion/ Question/Topic: Students were able to identify what was successful and usually equated successful with personal growth.

Weaknesses by Criterion/ Question/Topic: By score and by instructor comments, students struggled to analyze their own challenges with the project and comment on how they would improve the project, which also indicated lack of analysis on what was needed to improve. Self-reflection and critical introspection was not evident.

Use of Results

Previous action(s) to improve CLO if applicable: N/A

Target Met:
[ ] Yes [ ] No [ ] Partially

Based on recent results, areas needing improvement: Self-reflection on how to improve seemed to be a hard concept for some. Unclear if it was the identification of challenges or the inability to be self-critical to obtain positive results. Some concern that basic expressive writing skills may be cause of some inability to capture critical thinking.

Current actions to improve CLO based on the results: Faculty has decided to retain this assignment across the campuses and review data to see if improvements can be made.

Next assessment of this CLO: We will collect data from this course and assignment as part of the Accreditation requirements but plan on assessing other CLO requirements in the near future.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Fine Arts, A.A./A.A.A.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: (A.A.): The Associate of Arts degree with a major in Fine Arts is designed for students who plan to transfer to a four-year program in a professional school or to a college or university baccalaureate degree program in Fine Arts.
Program Purpose Statement: (A.A.A.): The Associate of Applied Arts degree with a major in Fine Arts is designed for students who seek direct employment in the applied arts field.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Students were given a formal writing assignment (topics could vary as long as they were selected from ART 100 course content area) and tasked with producing a well-organized piece of formal art criticism

[x] CT

Evaluation Methods

Art Appreciation ART 100
Direct Measure: Students were given a formal writing assignment (topics could vary as long as they were selected from ART 100 course content area) and tasked with producing a well-organized piece of formal art criticism.

Each student was given a detailed rubric outlining the goals of art criticism: to identify and describe the most important formal attributes of a selected artwork, and using formal terminology, to analyze how the artwork communicates through formal means evaluating the artwork within its own art historical period. The rubric outlined the specific criteria used to assess each of 5 subcategories: organization, identification, description, analysis and evaluation.
The range for each sub-category score:

- Excellent – 5
- Good – 4
- Acceptable – 3
- Weak – 2

Instructors scored the rubric for each student submission and then recorded individual student scores to obtain class scores on the class tally sheet.
The assessment rubric, instructions and tally sheet example are attached.
Sample Size (Specify N/A where not offered**)**

Campus/ Modality	Total # Sections Offered	# Sections Assessed	# Students Assessed
On Campus	**27**	**22**	**549**
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A
Total	**27**	**22**	**549**

Assessment Results

Semester/year data collected: Spring 2018
Target: Average total score of 3.0 or above for at least 70% of students assessed. These scores were also broken down into category sub-scores with a target score of 3.

This was the first time ART 100 has been assessed and the first assessment of a VCCS core competency. As a result, no comparison between previous and current assessment is available.
Results by CLO Criteria:

Criteria/ Question Topics	Average Score
1. Organization	3.52
2. Identification	3.69
3. Description	3.59
4. Analysis	3.25
5. Evaluation	3.25
Total	**3.46**

All targets were met or exceeded. The average total score was 3.46 and 76.1% of students assessed received a total score of 3 or better.
Current results: are inconclusive.
Strengths by Criterion/ Question/Topic: Student scores were strongest in Identification with an average of 3.69, 0.69 points above the target average of 3.

Weaknesses by Criterion/ Question/Topic: Student scores were weakest in Analysis and Evaluation with an average score of 3.25 in both categories. This score still reflects an acceptable range as it is 0.25 points above the target average of 3.

Use of Results

1. There was no previous assessment of a Critical Thinking Core Learning Outcome and no previous actions for improvements to report. This is the first time this VCCS core competency has been assessed.

2. Target scores and averages were met during this initial assessment, but areas of improvement were identified by the art history discipline group.

3. Analysis and evaluation are critical thinking skills that are essential to all students – not just art history students. ART 100 is a popular General Education course, and the art history discipline group needs to make certain that critical thinking (as well as other core competencies) is an essential component of EVERY ART 100 course taught at NOVA.

4. As such, the art history discipline group will review and revise the ART 100 Course Content Summary (CCS) to ensure core competencies are addressed. The art history discipline group will then work with our Academic Dean for Liberal Arts to ensure that a course taught at one campus meets the same standards as one taught at another.

5. There are inconsistent standards across the college and this impacts student learning. The art history discipline review of the CCS will take place in Fall 2018 with submission of revisions by Spring 2018. All campuses, sections and instructors will need to comply with the new CCS course outcomes/VCCS core competencies and revised standards by Summer 2018.

Next assessment: Spring 2018

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Fine Arts: A.A.A., Photography Specialization

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Fine Arts, A.A.A. – Photography Specialization Program Purpose Statement: The Photography specialization is designed for students who seek employment in the applied arts field. Course work will stress both technical and aesthetic elements, enabling students to solve a wide range of visual problems with imagination and originality

Core Learning Outcomes

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:

Students were given a formal writing assignment (topics could vary as long as they were selected from ART 100 course content area) and tasked with producing an Artist Statement.

[x] CT

Evaluation Methods

Advanced Photography I and II: PHT201+202
Direct measure Writing Artist Statement (Rubric attached at the end of the report)

1. Identifies and explains the relevance
2. Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience)
3. Communicates personal points of view (perspective)
4. Analyses and Justifies decisions (i.e., visual styles, technical, and aesthetic)
5. Uses College-level writing

Sample Size (Write N/A where not offered):

Campus/ Modality	# of Total Sections Offered	# of Sections Assessed	# Students Assessed	
AL only	1	1	AAA	3
			AAS	18
			AAA+ AAS	3
			Non-major	5
			Total	23
ELI	N/A	N/A	N/A	N/A
DE*	N/A	N/A	N/A	N/A
Total	**1**	**1**	**Total**	**23**

Assessment Results

Semester/year data collected: Spring 2018 All PHT201+202 students were assessed. This involved 1 faculty member in 1 section. Total sample was 23 students (AAS=18 students).
Target: 70 percent of students will score 3 points or better on each criterion and 15 points or better on the overall score.
Results by degrees

Results by CLO Criteria	Assessment Results Spring/2018	
	Average Score	% of Students ≥ 3 / 15 points
1. Identifies and explains the relevance	AAS = 3.6 points AAA = 4 points	AAS=94% AAA=100%
2. Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience)	AAS = 2.9 points AAA = 3.3 points	AAS=66% AAA=66%
3. Communicates personal points of view (perspective)	AAS = 3.3 points AAA = 3.6 points	AAS=94% AAA=100%
4. Analyses and Justifies decisions (i.e., visual styles, technical, and aesthetic)	AAS = 3.4 points AAA = 4 points	AAS=77% AAA=100%
5. Uses College-level writing	AAS = 2.8 points AAA = 3.6 points	AAS=61% AAA=100%
Total	**AAS = 16.2 points AAA = 18.6 points**	**AAS=72% AAA=100%**

Results: The following criteria are above target:
1**.** Identifies and explains the relevance and
3. Communicates personal points of view (perspective) are above target.
The following criteria are below target**:**
2. Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience),
4**.** Analyses and Justifies decisions (i.e., visual styles, technical, and aesthetic), and
5**.** Uses College-level writing.

Use of Results

This was the first assessment of this CLO.

The areas that need improvement are Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience), **4.** Analyses and Justifies decisions (i.e., visual styles, technical, and aesthetic), and **5.** Uses College-level writing are below target.

Current action(s) to improve SLO, based on results:
For 2 starting Fall 2018 faculty will emphasis these aspects of writing an artist's statement in class and provide students with web sites and examples of well written artist's' statements in Blackboard.
For 5 starting Fall 2018 faculty will encourage students to get help from the Writing Center.

Next assessment of this CLO: Spring 2021

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
General Studies A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This program is a flexible associate degree. For students who plan to transfer, the degree can parallel the first two years of a four-year bachelor of science program if they choose courses that match the transfer institution's requirements. For those students who do not plan to transfer, the degree allows them to structure a program to suit their needs using accumulated credits from a variety of formal and experiential sources.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:

Identify three to five aspects of critical thinking such as: identifying faulty logic, problem-solving, and asking questions/ probing etc.

[x] CT

Evaluation Methods

Student Development Orientation SDV 100

Direct Measure: Students were quizzed on 5 critical thinking questions embedded in a College Resource Quiz in SDV 100.

Question Topics

- Q9: Thinking creatively
- Q10: Solving problems
- Q15: Critical thinking in high school versus college
- Q17: Narrowing the problem
- Q18: Critical thinking

Sample:

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
AL	21	13	230
AN	36	32	678
MA (+1 SDV 101)	15	9	161
ME SDV 101	11	5	49
LO	18	13	250
WO	22	5	109
Online	24	17	246
DE*	10	1	21
Total	**157**	**95**	**1744**

*Dual-enrollment

Major improvement on data overall is due to the support and insistence of Associate Deans of Student Development on each campus.

Assessment Results

Semester/year data collected: Spring 2018

Target: 80% of students will answer correctly on the 5 critical thinking questions included on the College Resource and Critical Thinking Quiz.

Results:

Campus/ Modality	Q9	Q10	Q15	Q17	Q18	Total
AL	97%	93%	31%	11%	83%	63%
AN	95%	88%	24%	11%	80%	60%
MA	98%	94%	28%	3%	86%	62%
ME	98%	92%	16%	78%	80%	73%
LO	99%	93%	23%	13%	84%	62%
WO	100%	96%	100%	100%	100%	99%
Online	96%	68%	13%	76%	90%	69%
DE	100%	95%	24%	86%	100%	81%
Total Average	**98%**	**90%**	**32%**	**47%**	**88%**	**71%**

Current results improved: N/A - First time we assessed this topic.

Strengths by Criterion/ Question/Topic: Questions 9, 10, and 18 had the best scores due to the fact that they could be assessed by using good test taking skills and singling out other answers that are not the best (multiple choice). The questions are broad enough that even without reviewing the textbook they can be answered.

Weaknesses by Criterion/ Question/Topic: Questions 15 and 17 had the lowest scores. Question 15 is a question that requires the student to pick several right answers and there is more room for error. Question 17 had the highest wrong answers because it is not worded directly from the text but it's inferred from the reading

Use of Results

Previous action(s) to improve CLO: The SDV Curriculum Committee has a yearly mandatory SDV In-Service where we have instructors present on best practices on student engagement and learning (May 2016, May 2017, June 2018).

The Committee has also considered using a different textbook but our primary goal has been to keep the textbook affordable by using OER (Open Education Resources). We have considered that since the textbook is only available online that it discourages students from reading it. The committee reviewed textbooks in 2017-2018 and we voted against the different options because they could not remain free. At this time we have not found a better free textbook that covers the topic we review in this class.

Most of the assignments required self- assessment and reflection and students feel more comfortable with those assignments than assessments and quizzes that required them to review the textbook available online.

NOVA Online, formerly Online differed on when/where they assessed the critical thinking questions. It was not in the first

		material and requires a bit more critical thinking to figure out the best answer.	quiz/assessment and not attached to a college resource quiz but it was its own separate quiz. This allows discussion that putting a critical thinking reading assignment/assessment as its category later on in the class may improve the results. **Target Met:** [ ] Yes [ ] No [x] Partially **Based on recent results, areas needing improvement:** The Critical Thinking CLO is currently located along with College Resources and Communication Skills. Comparing with Online on where they put their assessment, students may do best if Critical Thinking has its own category after Academic and Test-Taking skills. **Current actions to improve CLO based on the results:** Unfortunately Fall 2018 assessment is well underway and too late to make any improvements or changes. Critical Thinking is not going to be assessed for Spring 2019. Comparing Spring 2018 to Fall 2018 would allow for more results to see if there is improvement or if the data stays the same. **Next assessment of CT:** Spring 2020

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Health Information Management, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed to prepare students to work as Health Information Management (HIM) professionals. These individuals play a critical role in maintaining, collecting, and analyzing the data that doctors, nurses, and other healthcare providers rely upon to deliver quality health care. The program emphasizes professionalism and instructional methods in a state-of-the-art computerized laboratory at the Medical Education Campus in Springfield, followed by clinical experience at various affiliated health care organizations. After successful completion of degree requirements, the student will be eligible to take the Registered Health Information Technician (RHIT) examination. This leads to an American Health Information Management Association (AHIMA) certification of a Registered Health Information Technician (RHIT) credential.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Apply policies and procedures surrounding issues of access and disclosure of protect health information. (II.C)

[x] CT

Evaluation Methods

Legal Aspects of Health Record Documentation
HIM 226

Direct measure: Ensuring students understand how to apply policies and procedures in granted authority to release protected health information. Students will use scenarios to determine if the situation is identity theft, medical identity theft, or neither.

Grading Rubric - Scenario questions:
4 questions x 6.25 points = 25 points

Sample Size (Write N/A where not offered):

Campus/ Modality	# of Total Sections Offered	# of Sections Assessed	# Students Assessed
Online	1	1	9
DE*	N/A	N/A	N/A
Total	**1**	**1**	**1**

*Dual-enrollment

Assessment Results

Semester/year data collected: Spring 2018

Target: 80% of students will score 75% or better on this assessment.

Results by In-Class, Online, Dual Enrollment:

Results by Campus/ Modality	Spring 2018	
	Average Score	Percent ≥ Target
Online	19.79	79.17%

Results by CLO Criteria:

Criteria/ Question Topics	Spring 2018	
	Average Score	% of Students ≥ Target
1.	6.25	100
2.	5.56	89
3.	3.47	56
4.	5.22	78
Total	**19.79**	**79.19**

Current results improved if applicable:
N/A: First assessment

Strengths by Criteria/ Question Topic:
Students demonstrated an understanding of how to apply policies and procedures for protected health information as it relates to release.

Weaknesses by Criteria/ Question Topic:
Based on the case scenarios, the results indicated that improvement is needed in identification of medical identity theft.

Use of Results

Previous action(s) to improve CLO if applicable: This CLO was not previously assessed.

Target Met: [X] Yes [ ] No [ ] Partially

Based on recent results, areas needing improvement: The HIM program has added more assignments that focus on access and disclosure of protected health information as outlined in the AHIMA competencies and standards, to be implemented by the HIM faculty member and Program Director in Spring 2019.

Current action(s) to improve CLO, based on results: As the students met the overall target, specific areas of protected health information focused on re-disclosure still needs to be reviewed. This will be reviewed in Spring 2019 by the HIM faculty member and Program Director.

Next assessment: Spring 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Horticulture Technology, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed to prepare the students for full-time employment within the field of commercial horticulture as well as those presently employed who seek further knowledge and advancement. Graduates of the program are prepared for managerial/supervisory level positions in areas which include: landscape design and installation, grounds maintenance, floristry, greenhouse and nursery management, garden center operation, and sales and marketing in related industries.

Core Learning Outcome

Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Gardens and culture research paper. This project was assigned as a semester long research paper allowing students to critically think about the course material and have an opportunity to research and explore in depth a garden history topic related to a specific culture and period in history.
[x] CT

Evaluation Methods

History of Garden Design HRT 120
Direct Measure: Gardens and culture research paper. This project was assigned as a semester long research paper allowing students to critically think about the course material and have an opportunity to research and explore in depth a garden history topic related to a specific culture and period in history. Students were able to select any site and research and discuss it in the context of its gardens, landscape and the social and cultural context in which it was built.

This semester-long research project allowed students to critically think about the course material and have an opportunity to research and explore in depth with a garden history topic related to a specific culture and period in history. It was graded to a rubric for a total of 50 points.

Provided Rubric Criteria or Question Topics: Research Paper Rubric is included.

Sample Size

Campus/ Modality	# of Total Sections Offered	# Students Assessed	# Sections Assessed
LO only	1	21	1
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A
Total	**1**	**21**	**1**

*Dual-enrollment

Assessment Results

Semester/year data collected: Spring 2018
Target: A target success rate was the 75% of the class achieving a 90% or better on the research paper.
Results by CLO Criteria: Grades (# of students):

	90-100+%	80-89%	70-79%	60-69%	0-59%
2018	18	3	0	0	0

Sub-scores: The percentage of students who received reduced points based on the rubric, received point reductions by percentage in the following categories:

- Spelling and grammar: 33.3%
- Research and references: 0%
- Structure and quality of content: 28.6%
- Also: No points reduced: 38.1%

All of the students completed the project; 85.7%% achieved the target score or better.
14.3% of the students that took the exam did not meet the target.
Spelling and grammar was the largest source of point reduction in the research paper. The research and references requirement were the lowest source of point reduction. Use of references and citation are an important part of critical thinking, and these sub scores indicate an aptitude in this CLO. The structure and quality of content resulted in the largest source of point reductions due to a critical thinking related subcategory. This would be an appropriate area to focus on to improve students critical thinking CLO. Finally, the 38.1% of students who had no reduced points also indicate aptitude in the critical thinking CLO.
Current results improved: N/A- new assignment with no comparable direct measure.
Strengths by Criterion/ Question/Topic: Use of research, citation, and proper use of references.
Weaknesses by Criterion/ Question/Topic: Structure and quality of content remain the weakest area relevant to this CLO.

Use of Results

Previous action(s) to improve CLO if applicable: This is the first time that this specific class and assignment was used to assess this CLO. There is not a comparable previous measure.

Target Met: [X] Yes [ ] No [ ] Partially

Based on recent results, areas needing improvement: The subscores indicate that the best area to improve the critical thinking CLO for this assessment would be to emphasize quality of content and using structure for the representation of ideas in a research paper form.

Current actions to improve CLO based on the results: The rubric will be revised with more details elaborating on the quality of content and structural requirements of the paper to better articulate the CLO critical thinking aspects of this assignment. To be implemented Spring 2019.

Next assessment of this CLO: This course is offered every semester and this assignment will be given each time the course is offered. The results can be saved from each class and assessed on a 2-year cycle, but which includes every semester's course results. A 2- year cycle would place the assignment as a CLO assessment for 2020-21. The course is taught by and will be assessed by the program head.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Hospitality Management, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

HRI Program Purpose Statement: The curriculum is designed to enable the student to enter management and management training positions in the hospitality industry and for those presently employed who desire updating in the field.

<table>
<tr><th>Core Learning Outcome</th><th>Evaluation Methods</th><th>Assessment Results</th><th>Use of Results</th></tr>
<tr>
<td>Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:

Students will describe and apply the four functions of management: plan, organize, lead and control.

[X] CT</td>
<td>Principles and Applications of Catering HRI 256

Direct Measure: Students will be observed planning, organizing, leading and controlling a catered lunch function. Each student assumed the role of a manager, which included adequate planning, organizing, leading and controlling the preparation, execution and post evaluation of a catered lunch for 36-75 guests on campus. A written project checklist will be tallied as functions are completed.

Sample: HRI 256 had 1 faculty, 21 students. Only taught on the Annandale campus.</td>
<td>Semester/year data collected: Spring 2018

Achievement Target: Student will score at least 20/25 points
<table>
<tr><th>Individual Manager Scores (25 pts)</th><th>Grade</th></tr>
<tr><td>24</td><td>A</td></tr>
<tr><td>24</td><td>A</td></tr>
<tr><td>23.5</td><td>A</td></tr>
<tr><td>23.5</td><td>A</td></tr>
<tr><td>23.5</td><td>A</td></tr>
<tr><td>22.5</td><td>A</td></tr>
<tr><td>22</td><td>B</td></tr>
<tr><td>22</td><td>B</td></tr>
<tr><td>21.5</td><td>B</td></tr>
<tr><td>21.5</td><td>B</td></tr>
<tr><td>21, 21</td><td>B</td></tr>
<tr><td>20.5</td><td>B</td></tr>
<tr><td>20,20</td><td>B</td></tr>
<tr><td>19.5, 19.5, 19.5</td><td>C</td></tr>
<tr><td>18.5</td><td>C</td></tr>
<tr><td>17.5</td><td>C</td></tr>
<tr><td>17</td><td>D</td></tr>
</table>
1. Students scored an average of 21.04 points out of 25 on their leadership skill and performance. The range of scores was 17-24. 28% of the class scored below the achievement target.

2. However, for final grades, only one student performed below average.

3. This is the second time the HRI 256 catering class was used as the platform for this SLO assessment. Previously students' management skills had a greater success rate which would have been 84% compared to our current success rate of 73%. This discrepancy may be due to a</td>
<td>Faculty wanted to see if our graduates were prepared with the skills for success in the workplace. We assessed an upper level capstone course, HRI 256 Principles and Applications of Catering, which is the last course students take prior to graduation. Faculty worked directly with students to apply all the functions of management in the execution of an actual catered lunch.

The assessment was more than theory – students assumed a management role. Faculty felt this was a more accurate way to evaluate the learning outcome. Previously, students simply answered test questions and listed the 4 functions of management.

Evaluating performance is far more difficult, but a Rubric was used. See Attachment A.

Results will be used to improve this assessment method by designing a well-defined grading rubric and dividing the management tasks into the four function areas. This should direct the students to specific management actions needed for success.

Results also indicated that we need to look at the 27% who fell short of the goal. Faculty will brainstorm on how we can better prepare students for management roles over the course of the upcoming spring 2019 semester. Faculty will screen ALL enrolled students to ensure they have the pre-requisites for this course. Students taking the course, without completing all other HRI requirements, most likely are lacking the skilled management skills they need to succeed in this class.

Changes to be implemented in Spring 2019. Student screening will be implemented in Spring 2019. We will monitor students who do not have all the pre-requisites.</td>
</tr>
</table>

		new instructor teaching a course, when a different perspective on grading is used. 4. HRI 256 is a capstone course that encompasses all of the courses taught in Hospitality Management, from food costing to human resource management to cooking to marketing, menu planning, etc. 5. Compared to the previous assessment in 2017, the results of this catering course revealed a lower level of competency in the actual practice of management functions. There was an 73% success rate. Our success rate in DEMONSTRATING management functions fell from the previous assessment, but a different instructor may be the reason.	Current data was from a small sample size of 21 students. We need to apply the new matrix using another HRI 256 catering class when the SLO is reassessed in 2019. The achievement target was met and exceeded. **Next Assessment**: Will reassess in Spring 2019 to compare results using the new rubric.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Liberal Arts, A.A.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This program is designed for students who plan to transfer to a college or university for a Bachelor of Arts or a Bachelor of Science in English, Creative Writing or Writing and/or Rhetoric as an entry-level professional writer.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
SDV 100:
Identify three to five aspects of critical thinking such as: identifying faulty logic, problem-solving, and asking questions/ probing etc.
[x] CT

Evaluation Methods

Student Development Orientation SDV 100

Direct Measure: Students were quizzed on 5 critical thinking questions embedded in a College Resource Quiz in SDV 100.

Question Topics

- Q9: Thinking creatively
- Q10: Solving problems
- Q15: Critical thinking in high school versus college
- Q17: Narrowing the problem
- Q18: Critical thinking

Sample Size (Specify N/A where not offered)

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
AL	21	13	230
AN	36	32	678
MA (+1 SDV 101)	15	9	161
ME SDV 101	11	5	49
LO	18	13	250
WO	22	5	109
Online	24	17	246
DE*	10	1	21
Total	157	95	1744

*Dual-enrollment

Assessment Results

Semester/year data collected: Spring 2018

Target: 80% of students will answer correctly on the 5 critical thinking questions included on the College Resource and Critical Thinking Quiz.

Results by In-Class, Online, Dual Enrollment:

Campus/ Modality	Q9	Q10	Q15	Q17	Q18	Total
AL	97%	93%	31%	11%	83%	63%
AN	95%	88%	24%	11%	80%	60%
MA	98%	94%	28%	3%	86%	62%
ME	98%	92%	16%	78%	80%	73%
LO	99%	93%	23%	13%	84%	62%
WO	100%	96%	100%	100%	100%	99%
Online	96%	68%	13%	76%	90%	69%
DE	100%	95%	24%	86%	100%	81%
Total Average	**98%**	**90%**	**32%**	**47%**	**88%**	**71%**

Current results improved: N/A - First time we assess this topic.

Strengths by Criterion/ Question/Topic: Questions 9, 10, and 18 had the best scores due to the fact that they could be assessed by using good test taking skills and singling out other answers that are not the best (multiple choice). The questions are broad enough that even without reviewing the textbook they can be answered.

Weaknesses by Criterion/ Question/Topic:
Questions 15 and 17 had the lowest scores. Question 15 is a question that requires the student to pick several right answers and there is more room for error. Question 17 had the highest wrong answers because it is not worded directly from the text but it's inferred

Use of Results

Previous action(s) to improve CLO:
The SDV Curriculum Committee has a yearly mandatory SDV In-Service where we have instructors present on best practices on student engagement and learning (May 2016, May 2017, June 2018).

The Committee has also considered using a different textbook but our primary goal has been to keep the textbook affordable by using OER (Open Education Resources). We have considered that since the textbook is only available online that it discourages students from reading it. The committee reviewed textbooks in 2017-2018 and we voted against the different options because they could not remain free. At this time we have not found a better free textbook that covers the topic we review in this class.

Most of the assignments required self-assessment and reflection and students feel more comfortable with those assignments than assessments and quizzes that required them to review the textbook available online.
NOVA Online, formerly Online, differed on when/where they assessed the critical thinking questions. It was not in the first quiz/assessment and not attached to a college resource quiz but it was its own separate quiz. This allows discussion that putting a critical thinking reading assignment/assessment as its category later on in the class may improve the results.

		from the reading material and requires a bit more critical thinking to figure out the best answer.	**Target Met:** [ ] Yes [ ] No [x] Partially **Based on recent results, areas needing improvement:** The Critical Thinking CLO is currently located along with College Resources and Communication Skills. Comparing with Online on where they put their assessment, students may do best if Critical Thinking has its own category after Academic and Test-Taking skills. **Current actions to improve CLO based on the results**: Unfortunately, the Fall 2018 assessment is well underway and too late to make any improvements or changes. Critical Thinking is not going to be assessed for Spring 2019. Comparing Spring 2018 to Fall 2018 would allow for more results to see if there is improvement or if the data stays the same. **Next assessment of CT:** Spring 2020

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Medical Laboratory Technology, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed to prepare students to perform essential laboratory testing on blood and body fluids that is critical to the detection, diagnosis, and treatment of disease. In a medical laboratory, the MLT is part of a team of highly skilled pathologists, technologists, and phlebotomists working together to determine the presence, extent or absence of disease, and helping to evaluate effectiveness of treatment. This program emphasizes "hands-on" practice of laboratory methods in a state-of-the-art laboratory at the Medical Education Campus in Springfield, followed by clinical experience at various affiliating health care organizations. Upon completion of the program graduates will be eligible to take the American Society for Clinical Pathology (ASCP) Board of Certification examination, and other national certification examinations offered at the technician level.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Cell identification and disease correlations **[X] CT**	**Clinical Hematology II** MDL 225 **Direct Measure:** Questions for cell identification and disease correlations embedded on MDL 225 final lab practical. *CLO 1 2018 Attachments* *1.1 Hematology II Final Lab Practical exam, Spring 2018* Topics: • Question #1: Identify abnormal red cell morphology present in blood smear image. • Question #4: Recognize presence of hyper-segmented neutrophils in blood smear. • Question #6: Recognize immature white blood cells (blasts) on blood smear and their prominent nucleoli. • Question #11: Identify abnormal white blood cells (Hairy cells) by comparing blood smears stained with regular stains and special stains. • Question #13: Distinguish nuclear fragments from white blood cells on blood smear images. **Sample for Core Learning Outcome**: Critical Thinking Assessment - one course, one section. All first year MLT students in MDL 225; N=19.	**Semester/year data collected**: Spring 2018 **Target:** At least 80% of MLT students will correctly identify normal blood cells and will be able to correlate changes in blood cells associated to diseases. **Results:** Percentage of students answering correctly in Spring 2018: • Question #1: 19/19 (100%) • Question #4: 18/19 (95%) • Question #6: 16/19 (85%) • Question #11: 19/19 (100%) • Question #13: 19/19 (100%) Target was met as shown by results obtained from selected questions embedded in final Lab Practical exam that required the use of critical thinking skills to identify correctly cells and correlate findings with disease states. Survey for Clinical Preceptors after Clinical rotation in Hematology, MDL 276 Clinical Hematology Techniques helped to validate the effectiveness of utilization of the multi head teaching microscope as a valuable resource to accomplish program goals in the area of Hematology. A question on clinical training evaluation form asks the affiliate if they feel the students' ability to identify and classify blood cells has improved, remained the same, or has declined when compared to the previous year's students. Out of 16 clinical affiliates, 15 felt students' ability for cell recognition improved.	Correct classification of white blood cells is a microscopy skill that is required to correctly perform the blood smear differential count. MLT students are expected to demonstrate proficiency in correct identification and classification of normal and abnormal white blood cells. Classification of blood cells has been determined as an area of difficulty for our first year students. This area of weakness was noted by clinical preceptors receiving students for hematology sections during 2016 -17 evaluations. Evaluations from clinical training included remarks about the difficulty that some students had to differentiate lymphocytes from monocytes and to distinguish immature blood cells using microscopy. Different efforts were introduced since Fall 2017, like more hands-on laboratory sessions dedicated to evaluating blood smear were incorporated into the curriculum with the objective to improve blood cells recognition. The acquisition of a multi head teaching microscope in Spring 2018 provided the opportunity to enhance the learning process of this course by synchronizing the description and observation of cell characteristics that are critical to classification of blood cells. Cell recognition improved as students participated in sessions that utilized the multi head teaching microscope. Receiving immediate feedback about white blood cell characteristics while using the multi heads microscope helped to compare cells in the

			same field of view, recognize differences, and apply classification criteria to their observations. The assessment performed on cell identification improved dramatically and was able to be transferred from real images seen through the microscope on slides to printed images or computer images. After the guided practice of cell identification using the multi head microscope, students expressed that they are more confident when assessing cell morphology of normal and abnormal cells as well as correlating findings with hematological conditions like leukemia. The target was met for this CLO assessing critical thinking skills and the positive results have been associated to the systematic approach applied to distinguishing characteristics of blood cells and the utilization of the multi head microscope. The use of this equipment will be incorporated during Fall 2018 in other courses that have a microscopy component like MDL 140, Microscopic Analysis of Body Fluids During Fall 2018, assessment of improvement in microscopic analysis in MDL 140 due to incorporation of multi headed microscope will be performed.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Music, A.A., A.A.A., and A.A.A. Jazz/Popular Music Specialization

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

A.A. Program Purpose Statement: The Associate of Arts degree curriculum in Music offers an emphasis in fine arts. The Associate of Arts degree curriculum may be used by students who wish to transfer to a four-year college or university to complete a Bachelor of Arts degree in Music.
A.A.A. Program Purpose Statement: The Associate of Applied Arts degree curricula in Music and Jazz/Popular Music is designed for students who seek employment in performing music.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Students will be able to effectively research and write on topics in the area of music / jazz and popular music. **[X] CT**	This assessment was given to music majors in MUS 111 in Fall 2017 and to music majors in MUS 112 in Spring 2018. **Direct Measure:** It is a writing assignment. Students were asked to write a concert report where they go to a classical concert and write a 2-3 page review of the concert. The concert report is not a research paper but a critical thinking paper. **Scoring:** There are three criteria for grading: 1. Summary (worth 20 points) 2. Integration of Course Work (worth 20 points) 3. Writing Style (worth 10 points) See the attached Music SLO method of assessment and grading rubric. **Sample:** • Number of students: 18 • Number of sections: 3 (1 at LO and 2 at AL) Breakdown of Students by Campus: • 5 at LO from Fall 2017 MUS 111 • 5 at AL from Fall 2017 MUS 111 • 8 at AL from Spring 2018 MUS 112	**Semester/year data collected:** Fall 2017 (MUS 111) and Spring 2018 (MUS 112) **Target Score:** 37.5 (75%) **Assessment Results:** • Total Average score: 40.53/50 (81.1%) • Maximum score: 50 Breakdown of scores: • "Summary" category average score: 17.33/20 (86.7%) • "Integration of Course Work" average score: 17/20 (85%) • "Writing Style" category average score: 6.2/10 (62%) This is the first time we have assessed SLO #6 in more than 10 years so we have no previous results to compare. **Strengths by Criteria/ Question Topic:** We met our achievement target overall and in 2 categories: "Summary" and "Integration of Course Work." **Weaknesses by Criteria/ Question Topic:** The results in the category of "Writing Style" (62%) are far under our 75% achievement target. It would benefit our students if we could help them with their writing style more. Perhaps good, clear feedback on written assignments would help our students with future writing assignments. Also, maybe we could make it a requirement to have students submit their papers to the Academic Success Center for feedback before they turn them in for a grade. The program will ask faculty to implement these suggestions. We are assessing this SLO #6 again in Spring 2019 so we can see if this helps our students improve their "Writing Style" scores.	Achievement target met in all areas except one: "Writing Style" **Previous Results:** This is the first time we have assessed SLO #6 in more than 10 years so we have no previous results to compare. **Previous Actions Implemented by Discipline Group:** This SLO has not been assessed in over 10 years. We decided to assess it and we will continue to assess it on a more regular basis. **Current Action:** We assessed MUS 111 music majors in Fall 2017 and MUS 112 music majors in Spring of 2018. To improve the "Writing Style" scores, faculty will be encouraged in Spring 2019 to give good, clear feedback on students' writing assignments and also to have their students submit their papers to the Academic Success Center for feedback before submitting their paper for a grade. **Next Assessment:** Spring 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Music Recording Technology Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The Music Recording Technology curriculum is designed for persons who desire to set up their own studio or seek employment as music recording technicians. Occupational objectives include development for positions as assistants and aides in recording studios, broadcast studios, myriad other recording enterprises, and countless private studios in the recording industry. Training in digital audio is emphasized using industry standard software.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Explain issues in copyright law. For this class, issues that arise with regard to infringement by sampling
OR
music piracy, problems and possible solutions.

[X] CT

Evaluation Methods

Music Copyright Law MUS 179
Direct Measure: Essay, 2500 words minimum. Areas addressed:

1.What constitutes sampling violation? What constitutes piracy?
2. The context in which sampling happens-music is not isolated but a continuous thread. When is it infringement? In piracy, what is considered to be pirated, for instance recording a live show, is sharing that recording illegal?
3. Various perspectives and affected parties had to be considered: Artist, secondary artists, producer, record label, marketer, radio, internet, copyright enforcement, sales, live concerts.
4. Assumptions were in sampling: when buying a recording who do you expect to hear, the artist? Who gets what percentage of the money you spent, what does the musician earn and is it sustainable and for whom. In piracy who is affected when a person steals music and what are the consequences for all parties, including the writer, producer, the store, download links, concerts and more.
5. students provided evidence of piracy and sampling using examples of music, high profile litigations including current. The evidence of piracy is obvious and was identified by every student who chose the topic
6. The implications of piracy and sampling are vast and range from the creation or even before to the end which is payment to all parties involved. This was perhaps the most elusive aspect since the data is continually changing. for an artist not in the main stream and even within that the rate of success is very low. Getting paid is becoming almost impossible and income is shifting toward live music and production as a solution to lost wages. Music is becoming a "service industry"

Sample: One section of an 8- week session, Loudoun Campus, 11 students.

Assessment Results

Semester/year data collected: Spring 2018

Target: 50% of students will score 80% or higher overall and each criterion

Results:
- 5 earned an "A"
- 3 earned a "B"
- 1 earned a "C"
- 1 earned a "D"

Results by CLO Criteria:

Criteria	High P	Proficient	Some P	No P
1	5/11	3/11	2/11	1/11
2	5/11	5/11	3/11	1/11
3	6/11	5/11	N/A	N/A
4	6/11	3/11	2/11	1/11
5	5/11	4/11	2/11	1/11
6	6/11	3/11	2/11	N/A

This was the first time this CLO was assessed so there is no data to compare yet. In the future, we will be able to compare these results with the next assessment in Spring 2019.

The CLO was assessed using an SLO. Results from prior SLO assessment: Data collection - Fall 2014. One section paper assigned to 17 students:
- 12 earned an "A"
- 2 earned a "B"
- 2 earned a "C"
- 1 earned a "D"

Current Results: over 75% of students earned 80% or better. With a target of 75%, students completed the assignment successfully with a score of 80% or better.

Use of Results

Target Met: [X] Yes [ ] No
[ ] Partially
This was the first time this was used as a CLO topic. Faculty expectation was 50% success for the CLO.
More emphasis will be placed on weak areas with quizzes and instruction. The class meets 4 times in the semester so it is incumbent upon the student to research what has been discussed in class. Further emphasis will be placed on this beginning in Spring 2019 to improve results.

Current actions to improve CLO based on the results, starting Spring 2019:
Add more study guides and discussion groups, emphasizing the importance of research between meeting times of 2 weeks.
Add multimedia presentations to enhance engagement.
Improve assessment methods by accurately tabulating criteria and scores.
Provide more videos and study guides for use outside of meeting times starting in Spring 2019.

New adjunct faculty will be teaching this course in Spring 2019 and providing the CLO.

Next assessment: Spring 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Nursing, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose: The Nursing Program is designed to prepare students to participate as contributing members of the healthcare team, rendering direct care to patients in a variety of health care facilities and agencies. Upon satisfactory completion of the program, students will be eligible to take the National Council Licensure Examination (NCLEX) leading to state licensure as Registered Nurse (RN) and are qualified to assume registered nurse positions in hospitals, nursing homes, clinics, physician's offices, HMOs, and other community based settings.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Program SLO #8: Demonstrate the use of critical thinking throughout the nursing process in the provision of client care	**Second Level Nursing Principles and Concepts II** NUR 222 **Method A:** RN Exit Exam. Health Education System Inc. (HESI) Standardized HESI- Exit RN Exam extrapolated scores for Critical Thinking. **Method B:** Final Exam: The NUR 222 final exam is a 100 item multiple choice exam, used to measure SLO #8 "Critical Thinking." The cognitive level of each item on the final was application or higher. A total score of 78% is required for passing. Item analysis (IA) consisting of the percentage of correct responses (P), and the point biserial correlation (PBC) for all items was carried out. The KR (20) was also reported for the final exam of 0.602. Nursing 222 is only offered at the MEC.	**Semester/year data collected:** Spring 2018 NUR 222- Traditional track and Online track Traditional track: N= 120; Sections= 3. Two faculty members were assigned to the traditional track. The Traditional track is a combination of traditional students and students from the LPN to RN track. Online track: N=36; Sections: 2. One faculty member was assigned to the online track. Combined Traditional and Online: N=156 total number of students; No students withdrew before the end of the semester. 155 students passed the course. One student received an incomplete. **Target**: The benchmark for the HESI Standardized Nursing Exams is 850. **Results**: SLO # 8: Total number of students taking the HESI Exit Standardized Exam was 152. The Traditional was further broken down into 34 LPN to RN Traditional Students and 86 Traditional Students for the purpose of HESI Testing in NUR 222. The HESI Exit scores were as follows: LPN-RN Traditional:776; Traditional: 789.; Online: 867 This means the target was met for the online students, but not for the Traditional LPN-RN or Traditional students. **Method B: Spring 2018 NUR 222:** Of the 156 enrolled students, 153 students tested on Blackboard. The 3 remaining took the test on paper. 144 of 153 achieved $\geq$ 78% (94%). The KR (20)/Cronbach Alpha = 0.6. However, this exam does not break down the results to the level of how many students met the benchmark for each SLO category at this time.	**Previous actions to improve SLO**: In addition, PrepU which is an adaptive quizzing to mimic the NCLEX-RN which was used for assignments. No change was made to the Pediatric textbook. The PrepU quizzing allows students to answer questions until they reach mastery levels from 1 through 8. Mastery level of 4 was used for minimum requirements for the assignments. **Most Recent Results:** The benchmark for HESI standardized testing of 850 was not met for SLO #8; however, the benchmark was met for the method. **Current actions to improve SLO**: Based on the current analysis, the current actions to improve the SLO #8 include: Teaching faculty will provide immediate remediation including referrals to student success center for all students who score below 80% on the first unit exam or have other at-risk issues. Total faculty approved a new pediatric textbook, Kyle, that is leveled for associate degree nursing students and will be used by the next academic cohort (graduating class of 2018). Finally, a suggested increase of the mastery level of PrepU assignments to 6 out of 8. NUR 222 will be phased out in May 2019. No further action will be taken.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Occupational Therapy Assistant, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The NOVA Occupational Therapy Assistant (OTA) curriculum is designed to prepare students to assist occupational therapists in providing occupational therapy treatments and procedures. Graduates may, in accordance with state laws, assist in the development of occupational therapy treatment plans, carry-out routine functions, direct activity programs, and document the progress of treatments. Upon the completion of the program requirements the students are able to sit for the National Board for Certification in Occupational Therapy certification exam for OTAs.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Apply reflective problem-solving skills and decision-making skills while providing OT intervention in a safe manner. **[X] CT**	**Therapeutic Skills** OCT 207 **Direct Measure:** OCT 207 Final Practical Exam Rubric Item. Grading Rubric (as attached): CATEGORY V: CREATIVE PROBLEM-SOLVING/FUNCTIONAL IMPLICATIONS (10 points) A. Demonstrates creative problem solving when performing: 1. Procedures to transfer the client or to perform grip/pinch strength and others. (5 points) B. Demonstrates creative problem solving when discussing 2 functional implications that will be considered for discharge. (5 points) **Sample Size** (Specify N/A where not offered) **Campus/ Modality** / **# of Total Sections Offered** / **# Sections Assessed** / **# Students Assessed** ME: 1 / 1 / 17 ELI: N/A / N/A / N/A DE*: N/A / N/A / N/A *Dual-enrollment One student was not assessed in this category as she failed the practical before getting to this section of the practical.	**Semester/year data collected:** Spring 2018 **Target:** 90% of OTA students will apply reflective problem-solving skills and decision-making skills while providing OT intervention. Therapeutic Skills final practical by receiving a 4/5 or 5/5 on each of the two problem-solving areas on the OCT 207 final practical rubric. **Category V. A.1. Rubric Item (out of 5 points)** **Graded:** / **% that earned** 5/5 82.50% 4/5 11.7% 3/5 5.8% 2/5 0% 1/5 0% **Total percentage receiving a 5/5 or 4/5:** 94.2% **Average score:** 4.76/5 **Category V. B. Rubric Item (out of 5 points)** **Graded:** / **% that earned** 5/5 82.40% 4/5 17.6% 3/5 0% 2/5 0% 1/5 0% **Total percentage receiving a 5/5 or 4/5:** 100% **Average score:** 4.82/5 **Strengths by Criterion/ Question/Topic:** Out of 17 students assessed on this practical, 100% students scored a 5/5 or a 4/5 in both of the problem-solving and decision-making categories on the Therapeutic Skills grading rubric in the case-based final practical with the Category V.B rubric item. Overall, students demonstrated excellent problem-solving skills and decision-making skills in this case-based practical, which mimicked a typical treatment session in the clinic. **Weaknesses by Criterion/ Question/Topic:** One student failed the practical before these two areas were assessed so these two criteria were not evaluated. Out of the 17 students assessed in these categories in the rubric, only one student received a 3/5 in the Category V.A.1 as she did not explain footwear safety in transferring although did incorporate proper footwear during the transfer process. **Comparison to previous assessment:** This is the first assessment of this CLO and will be used as a benchmark for future assessments.	**Previous action(s) to improve CLO if applicable:** This is the first time that this specific core learning objective has been assessed. **Target Met:** [x] Yes [ ] No [ ] Partially **Based on recent results, areas needing improvement:** Continued practice on applying problem-solving and decision-making skills in the OCT 207 lab sessions is recommended to continue to improve success on this CLO. **Current actions to improve CLO based on the results:** The OTA program will increase its utilization of more case-based scenarios in the OCT 207 lab in the simulation center so that students have to more consistently apply their problem-solving skills and decision-making skills during Spring 2019. **Next assessment of this CLO:** This CLO will be reassessed in the AY 2019-2020.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Paralegal Studies, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed to provide an individual with a sufficient level of knowledge, understanding, and proficiency to perform the tasks associated with meeting a client's needs. These tasks can be performed by a trained, non-lawyer assistant working under the direction and supervision of a lawyer. A paralegal or legal assistant will have a basic understanding of the general processes of American law, along with the knowledge and proficiency required to perform specific tasks under the supervision of a lawyer in the fields of civil and criminal law. Occupational objectives include employment in corporate law firms, government agencies, and any of the varied law related fields. Legal Specialty courses are only offered at the Alexandria Campus and through NOVA Online. This program is approved by the American Bar Association (ABA).

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Draft legal documents including but not limited to pleadings, contracts, wills, and deeds. **[X] CT**	**Legal Writing** LGL 126 **Direct Measure:** Data was collected from a legal memorandum assignment (Susie Speaker) to determine how well students solved issues using legal citation form and writing style. The following Critical Thinking rubric was used: **Sample:** Number of Sections: 2 Number of Students: 27 Alexandria Campus	**Semester/year data collected:** Spring 2018 **Target**: 80 percent of students will successfully use proper legal citation form and writing style when they draft a legal memorandum and earn a grade of 70 percent or higher. **Results:** The target was met: 93 percent of students earned a grade of 70 percent or higher; 70 percent of students earned an "A" grade. These students followed the prescribed format, used all of the legal sources (case law, First Amendment, federal statute), used proper legal citation, and correct spelling and grammar. Seven percent of students earned a "B" grade. These students did not follow the correct format or use all of the legal sources. Fifteen percent of students earned a "C" grade. These students did not use all of the legal sources and did not use proper legal citation. The 7 percent of students who did not earn 70 percent or higher did not turn in the assignment. **Comparison to previous assessment:** Spring 2017: A different memorandum of law assignment was used for this assessment (Victoria V); however, the grading rubric was similar. At that time, two sections of the course were evaluated (21 students) and the target was not met—only 71 percent of students earned a grade of 70 percent or higher. Spring 2016: A different method of assessment was used during this period (Trial Court Brief); therefore, a comparison to the present results cannot be made.	The last time this SLO was assessed (Spring 2017) the target was not met. The program decided to use a different method of assessment to improve student learning. In Spring 2018, the program decided to use this SLO to evaluate critical thinking. In an effort to improve student learning, the faculty used a different method of assessment for this CLO. The Memorandum of Law assignment proved to be a better method for students to use critical thinking to resolve legal issues while using proper legal citation because this assignment required them to use more resources than the Trial Court Brief. For example, students used case law, the First Amendment, and a federal statute to analyze the discussion section of the Memorandum of Law. **Plan for improving Critical Thinking based on results:** During Spring 2018 faculty and Advisory Committee meetings, the program will discuss methods in which to improve students' ability to use legal research to locate, evaluate, and interpret case law and statutes to reach appropriate conclusions. **Next Assessment:** Spring 2020

Criteria	Explanation	Points
On Time	Turned in on or before due date	3
Followed Format	Explained in class and posted on Blackboard	5
Discussion Section	Used critical thinking to research and analyze relevant case law and statutes to reach a conclusion.	25
Proper Legal Citation	Use italics or underline parties' names, identify correct reporter, court name, and year case decided.	5
Spelling/ Grammar	No typographical errors	2
Total		**40**

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Personal Training Career Studies Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This program is based on the standards of the American Council on Exercise (ACE) and prepares you to become a knowledgeable fitness professional in health clubs, recreation departments, and fitness facilities in private, commercial, corporate or government settings. The program will prepare you to sit for a nationally recognized certification exam in Personal Training.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Students will identify modifiable risk factors contributing to Cardiovascular disease.

[X] CT

Evaluation Methods

Lifetime Fitness and Wellness PED 116
Concepts of Personal and Community Health HLT 110

Direct Method: In January 2018, the PED/HLT Cluster chose to evaluate this SLO in two ways:

(1) a True/False question to include in PED 116 and HLT 110 that focuses on the risk factors associated with all forms of Cardiovascular Disease. The aim was to include this question in all sections of both courses (see Appendix A for question).

(2) The Completion of a personal Cardiovascular Disease Risk Assessment. These assessments are a required part of the curriculum in both courses. The assessments can be completed as in in-class lab or as a homework assignment (see Appendix B for CVD Risk Assessment example).

Sample:

Campus/ Modality	# of Total Sections Offered	# Sections Assessed
AN	10	10
MA	8	8
AL	8	6
LO	9	8
WO	4	0
NOVA Online	**	**
DE*	N/A	N/A
Total	**39**	**32**

*Dual Enrollment
**See SLO 1

Assessment Results

Semester/year data collected: Spring 2018

Target: 80% of students answering the question correctly.

Results - CVD Risk Factors Question:

Campus	# Students with correct answers	Percentage Correct
Annandale	185 of 207	89%
Alexandria	155 of 180	86%
Loudoun	158 of 172	92%
Manassas	225 of 233	96%
Total	**Total 723 of 792**	**Cum % 91.2%**

Results - CVD Risk Factor Assessment:

Campus	# Students Completing Risk Assessment	Percentage Correct
Annandale	229 of 247	93%
Alexandria	162 of 180	90%
Loudoun	151 of 169	89%
Manassas	233 of 233	100%
Total	**Total 775 of 829**	**Cum % 93.4%**

Use of Results

This is the first time this SLO was assessed.

Cardiovascular disease is the leading cause of death in the United States. The ability to recognize these risk factors in college years is a proactive step toward decreasing this major health concern in later years.

Target Met: [X] Yes [ ] No [ ] Partially

Actions for Improvement:
1) Comparison data
2) No full-time faculty representation at the Woodbridge Campus (i.e. no assessment completed).

As part of the action plan: (1) for comparison we are assessing the SLO in Fall 2018. (2) A dialogue on how the Woodbridge Campus would disseminate and collect data without representation of a full-time PED/HLT faculty. In Fall 2018, as requested by our previous dean, these concerns were shared with our discipline Dean.

Next Assessment: Fall 2018

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Phlebotomy Career Studies Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The Career Studies Certificate in Phlebotomy is designed to prepare personnel who collect and process blood and other samples for medical laboratory analysis. Phlebotomists work in hospitals, medical clinics, commercial laboratories, and in other settings where blood is collected from patients. The curriculum includes learning experiences in both on-campus laboratories and affiliated clinical laboratories. Graduates are eligible to sit for the national examinations to become certified as a Phlebotomy Technician.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Exam section on Laboratory Operations requires the utilization of Critical Thinking skills to evaluate laboratory data to determine accuracy of generated data and for detection of systematic error in laboratory instruments. Other questions include situations to determine course of action needed to reduce risks for infections, accidental needle sticks and practices needed to maintain the safety in laboratory environment. **[X] CT**	**Direct Measure:** External examination: Phlebotomy ASCP BOC Exam Statistics. This is a computer adaptive test, and results provided in the report are not broken down by topics. CLO 1.1 BOC Program Performance Report 2018. CLO 1.2 PBT (ASCP) Examination content outline. The Laboratory Operations section of Phlebotomy technician PBT(ASCP) Certification Test includes the topics on: - Quality Control - Quality Improvement - Regulatory Applications to maintain Safety and Infection Control **Sample:** All PBT Graduates sitting as first time examinees for this PBT(ASCP) Certification Test: N=14	**Semester/year data collected**: Spring 2018 **Target**: 90% of graduates sitting as first time examinees in this term cohort will get a passing score equal to 400 or better in the Laboratory operations sub-content area. **Results:** The program mean for Laboratory Operations was 566 and was higher than the overall mean scaled score of 561. Program examinees scores in Laboratory Operations: • 800-999 N= 1/14 • 700-799 N= 2/14 • 600-699 N= 2/14 • 500-599 N= 4/14 • 400-499 N= 4/14 • Less than 399 N=1/14 The required passing score for each area of this test is a minimum of 400, and only 1 student did not achieve this minimum score. This student did not pass the certification test on this first attempt. All the others (13/14) achieved passing scores ranging from mid-400s to mid-800s. Target was met as 93% of graduates sitting as first time examinees scored more than 400 in this section.	Critical thinking has not been measured previously in a cohort sitting at the certification test. This cohort includes graduates from Fall 2017 and Spring 2018. The section of Laboratory Operations requires the utilization of Critical Thinking skills to evaluate laboratory data to determine accuracy of generated data and for detection of systematic error in laboratory instruments. Other questions include situations to determine course of action needed to reduce risks for infections, accidental needle sticks and practices needed to maintain the safety in laboratory environment. The target was met showing that graduates have the ability to weigh evidence to select appropriate course of action in laboratory operations or to procedures and processes that provide safety, reliability, and accuracy. Actions to maintain the target and provide opportunity to improve the student's performance in the certification test in the area of Laboratory Operations include to keep the hands-on activities related to QC, QA and safety regulatory compliance. These activities encourage the development of critical thinking skills. The case studies and Laboratory scenarios play an important step in assessing well-developed critical thinking skills, and the group discussions clarify the process of analysis to guide students that still have not achieved the expected outcome. **Next Assessment:** Assessment of this CLO should be monitored annually.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Photography and Media, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Photography and Media, A.A.S. Program Purpose Statement: The program is designed for students for diverse career options within the field of photography, digital imaging, and media. Course work will stress both technical and aesthetic elements, enabling students to solve a wide range of visual problems with imagination and originality.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Writing an Artist Statement Writing a statement should clarify the conceptual intent of the student's work and help them identify and be aware of their creative process.

[X] CT

Evaluation Methods

Advanced Photography I + II
PHT 201+ 202

Direct Measure: Writing Artist Statement (Rubric attached at the end of the report). The statement should be a reflection upon the student's work throughout the semester. Writing a statement should clarify the conceptual intent of the student's work and help them identify and be aware of their creative process.

Critical thinking will be demonstrated by an artist's statement that:

1. Identifies and explains the relevance: Overview of the project; Main idea
2. Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience):Subject matter; Styles; How your work relates to the world around us?; Influences
3. Communicates personal points of view (perspective): Your experience of creating work; Massages to convey through work
4. Analyses and Justifies decisions (i.e., visual styles, technical, and aesthetic):Specific ways of seeing, styles; Does the project change over time? If so, why?; What medium does it involve? Is there any significance for your project that you are using a specific media?
5. Uses College-level writing

Sample:

Campus/ Modality	# of Sections Offered	# of Sections Assessed	# Students assessed	
AL	1	1	AAA	3
			AAS	18
			AAA+AAS	3
			Non-major	5
			Total	23
ELI	N/A	N/A	N/A	N/A
DE*	N/A	N/A	N/A	N/A
Total	**1**	**1**	**Total**	**23**

All PHT201+202 students were assessed. This involved 1 faculty member in 1 section. Total sample was 23 students (AAS=18 students).

Assessment Results

Semester/year data collected: Spring 2018

Target: 70 percent of students will score 3 points or better on each criterion and 15 points or better on the overall score.

Results by degrees:

Results by CLO Criteria	Spring 2018	
	Average Score	% of Students ≥ 3 / 15 points
1. Identifies and explains the relevance	AAS = 3.6 points AAA = 4 points	AAS=94% AAA=100%
2. Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience)	AAS = 2.9 points AAA = 3.3 points	AAS=66% AAA=66%
3. Communicates personal points of view (perspective)	AAS = 3.3 points AAA = 3.6 points	AAS=94% AAA=100%
4. Analyses and Justifies decisions (i.e., visual styles, technical, and aesthetic)	AAS = 3.4 points AAA = 4 points	AAS=77% AAA=100%
5. Uses College-level writing	AAS = 2.8 points AAA = 3.6 points	AAS=61% AAA=100%
Total	**AAS = 16.2 points AAA = 18.6 points**	**AAS=72% AAA=100%**

Above Target: 1. Identifies and explains the relevance and 3. Communicates personal points of view (perspective) are above target.

Below Target: 2. Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience), 4. Analyses and Justifies decisions (i.e., visual styles, technical, and aesthetic), and 5. Uses College-level writing are below target.

Use of Results

This was the first assessment of this CLO.

The areas that need improvement are 2. Recognizes context (i.e., cultural/social, scientific, technological, political, ethical, personal experience), and 5. Uses College-level writing, which are below target.

Current action(s) to improve SLO, based on results: For #2, faculty will emphasize these aspects of writing an artist's statement in class and provide students with websites and examples of well-written artists' statements in Blackboard starting in Fall 2018. For #5, faculty will encourage students to get help from the Writing Center starting in Fall 2018.

Next Assessment: Spring 2021

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Physical Therapist Assistant, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The PTA Program is designed to prepare students to utilize exercise, specialty equipment and other treatment procedures to prevent, identify, correct and alleviate movement dysfunction. The program design provides students with the philosophical, theoretical, and clinical knowledge necessary to deliver high-quality patient care. Ultimately, students are prepared as skilled technical health care providers who work under the direction and supervision of a physical therapist to provide selected components of physical therapy treatments. Upon successful completion of the program, students must take and pass a licensing examination to begin their career as a physical therapist assistant (PTA). Students are prepared for employment in a variety of health-care settings including acute care hospitals, outpatient clinics, extended care facilities, rehabilitation centers, contract agencies and schools.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Present sound rationales for clinical problem solving within the plan of care established by the physical therapist.
[X] CT

Evaluation Methods

Clinical Experience III PTH 232

Direct Measure: The summative evaluation method is performance on Criterion #7 Clinical Problem Solving on the PTA Clinical Performance Instrument (CPI) in PTH 232 Clinical Experience III in the Spring semester of the second year. Per the CPI, criteria which must be met in order for a student to achieve "entry level performance" are:

- Is capable of completing tasks, clinical problem solving, and interventions/data collection for patients with simple or complex conditions under general supervision of the physical therapist.
- Is consistently proficient and skilled in simple and complex tasks, clinical problem solving, and interventions/data collection.
- Is capable of maintaining 100% of a full-time PTA's patient care workload in a cost effective manner with direction and supervision from the physical therapist.

"Entry level" is a single point highest level terminal benchmark without gradations. Students achieving this benchmark are deemed ready to practice as physical therapist assistants. There are no strengths or weaknesses defined or identified for individual criterions on this national performance assessment tool.

Provided Rubric Criteria or Question Topics:
Performance on written and practical exam questions across the first year that required students to problem solve increasingly complex clinical applications of the concept of passive

Assessment Results

Semester/year data collected: Fall 2017/Spring 2018, Cohort Class of 2019

Target: 100% of students will score "Entry Level" on PTH 232 CPI criterion #7

Summative Results by In-Class Enrollment:

Results by Campus/ Modality	Spring 2019		Spring 2018	
	AVG Score	% of Students ≥ 100%	AVG Score	% of Students ≥ 100%
ME	N/A	N/A	100%	=

The formative achievement targets are:

1. 100% of students will correctly answer question #22 on the Unit II Goniometry exam in PTH 121 Therapeutic Procedures I.
2. 100% of students will correctly answer Question #6 on the PTH 115 Kinesiology for the PTA Unit III written exam.
3. 100% of students will correctly answer Question #3b on the PTH 115 Unit IV Posture and Gait practical exam.

Results by CLO Criteria:

Results by CLO Criteria/ Question Topics	Fall 2017		Fall 2016	
	AVG Score	% of Students ≥ 100%	AVG Score	% of Students ≥ 100%
1.	71.9%	<28.1%	40%	<60%
2.	69%	<31%	68.75%	<31.25%
3.	89.7%	<10.3%	90.3%	<9.7%

Current results improved: [X] Yes [ ] No [ ] Partially

Use of Results

Previous actions to improve CLO: Improving clarity of PTH 121 Therapeutic Procedures I Unit II Goniometry exam question #22 in Fall 2017 resulted in a sharp increase in students able to demonstrate their problem solving ability.

Target Met:
[ ] Yes [ ] No [X] Partially

Based on recent results, areas needing improvement: Retention of concepts from Fall semester to Spring semester.
Opportunity to coordinate learning in PTH 115 Kinesiology for the PTA with PTH 122 Therapeutic Procedures II.

Current actions to improve CLO based on the results:
PTH 115 faculty will reinforce passive insufficiency concepts presented in lecture through integrated manual muscle testing activities in lab in Spring 2019. Faculty will triangulate PTH 115 Kinesiology for the PTA data with PTH 122 Therapeutic Procedures II Therapeutic Exercise practical exam results to identify students still struggling with problem solving using the passive insufficiency

insufficiency of muscles was examined. The formative evaluation methods included:

1. In PTH 121 Therapeutic Procedures I in the first semester in Fall 2017 for the Class of 2019, on the Unit II Goniometry exam question #22 students were asked to apply the concept of passive insufficiency to arrive at the correct positioning for a goniometric joint measurement.
2. In PTH 115 Kinesiology for the PTA in Spring 2018, the Class of 2019 was asked Unit III Lower Extremity Unit exam question #6 requiring problem solving for the higher level task of assessing muscle length applying the passive insufficiency concept to hip flexors.
3. In PTH 115 Kinesiology for the PTA in Spring 2018, the Class of 2019 was asked on the Unit 4 Gait and Posture practical exam to problem solve at the highest level, applying the passive insufficiency concept to construct a stretching exercise for a tight muscle.

Sample:

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
ME only	1	1	29
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A

*Dual Enrollment

Strengths by Criterion/ Question/Topic:

1. The question was worded differently in Fall 2016: "When measuring hip extension ROM" stem with 4 answer choices beginning with the knee is (flexed or extended) to minimize tightness in the (muscle group name)." Although the point biserial discrimination was .37, indicating a strong correlation between students who scored high on the exam and students who answered the question correctly, the instructor reworded the question to improve clarity in Fall 2017, resulting in a 31.9% increase in the number of students who were able to problem solve applying the concept.
2. Students were able to problem solve by applying the passive insufficiency concept at a higher level than in the previous semester with very little attenuation in the percentage of students answering the question correctly. There was little change between the two cohorts despite a change in instructors to a first time adjunct in Spring 2018.
3. In each cohort, the same pattern is observed across the course with an increasing percentage of students able to problem solve across the continuum of difficulty suggesting that sequential learning has taken place.

Weaknesses by Criterion/ Question/Topic:

1. N/A
2. Although there was only a small drop (2.9%) in the percentage of students correctly answering this question compared to the earlier lower level question, it is still not a gain suggesting that students may need more lab activities in this area to help cement this skill.
3. Faculty did not triangulate data from the PTH 122 Therapeutic Procedures II Therapeutic Exercise practical exam 6 weeks prior to the PTH 115 Unit 4 practical exam to identify students still struggling to problem solve by applying the concept who could have received remediation.

concept in order to offer additional remediation activities to improve the final PTH 115 practical exam performance in this area in Spring 2019.

Next Assessment: Spring 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Professional Writing Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The Professional Writing Certificate program prepares candidates to compose documents and manage professional communications for a variety of contemporary professions, including business, military, medicine, government, science, and industry. Writers will gain expertise in composing, designing, and editing electronic texts, as well as a comprehensive foundation in grammar and punctuation. Students may tailor their preparation for particular writing environments by selecting from a variety of elective courses in journalism, technical report writing, graphic design, writing for publication, writing for the Web, social media, and communications. Students may also incorporate a professional internship into the Certificate program.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: Writing a business report with the following attributes: ● Attribute 1: Explanation of issues ● Attribute 2: Evidence ● Attribute 3: Influence of context and assumptions ● Attribute 4: Students' perspective or thesis ● Attribute 5: Conclusions **[X] CT**	**Writing for Business** ENG 116 **Direct Measure:** This outcome was analyzed during this evaluation cycle using data from the Eng. 116 Writing for Business courses. The research reports studied for this assessment were composed collaboratively in small groups. The assessment analyzed the achievement of the resulting reports with respect to the following categories: ● Attribute 1: Explanation of issues ● Attribute 2: Evidence ● Attribute 3: Influence of context and assumptions ● Attribute 4: Students' perspective or thesis ● Attribute 5: Conclusions For each of these elements, students were given a score of 1 (unsatisfactory), 2 (generally satisfactory), or 3 (effectively). **Sample:** During the Spring 2018 there were two sections of Eng. 116 offered. Both sections were affiliated with the Annandale campus and both were ELI courses.	**Semester/year data collected:** Spring 2018 **Target:** 2.5 **Assessment results for the most recent cycle:** There were 24 students enrolled between the two sections of the course; 22 students received credit for the course. Of the 24 enrolled students, 23 participated in the group report assignment. A total of 6 collaborative reports were assessed. Group report: The assessment did not meet the target (2.5) for a majority of the categories. Five of the six submitted reports scored satisfactorily or effectively in almost all categories. However, skewing the results is the failure of one group to complete the assignment as directed. The average scores of the group report for each category, with or without the missing reports, were as follows: **Attribute** / **Mean (all reports)** / **Mean (5 completed reports)** Attribute 1 — 2.5 — 2.8 Attribute 2 — 2.3 — 2.6 Attribute 3 — 1.8 — 2.0 Attribute 4 — 2.0 — 2.2 Attribute 5 — 2.0 — 2.2 Since these were group reports, there were four documents studied in total. Because one group's report did not achieve a passing score, the mean scores were greatly impacted. This impact resulted in only one category meeting the target (2.5). When the data for these reports is considered without the outlier report included, the target is met for Attributes 1 and 2. Attributes 4 and 5 score lowest regardless of whether this low performing report is included in the data set **Comparison to previous assessment:** This outcome has not previously been assessed in the context of an Annual Planning and Evaluation Report on Standard Learning Outcomes. Therefore, prior data is not available for comparison.	**Previous actions to improve SLO:** Not applicable; this outcome has not previously been studied. **Most recent results:** The main area of weakness is Attribute 3 wherein students discuss alternative positions and evaluate those positions. Attributes 4 and 5, which also score low, require students to account for the complexities of alternative positions and draw conclusions. Since these three attributes are linked, it would make sense that there is some consistency in the low scores. **Current actions to improve SLO:** This is the first time studying this outcome; therefore, the first action in response to this SLO will be to communicate this finding with faculty who teach English 116 regularly. Faculty with disciplinary expertise in this area, and who teach the course regularly, will be asked to consider how they might develop activities to support incorporation and evaluation of alternative viewpoints. These actions will be completed in the Fall 2018 semester. **Next Assessment:** Spring 2020

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Public History & Historic Preservation Career Studies Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This curriculum is designed for persons seeking to develop research, analytical, and field skills in historic preservation, archaeology, and museum studies sufficient for the student to continue or to participate in local community-based projects.

<table>
<tr><th>Core Learning Outcome</th><th>Evaluation Methods</th><th>Assessment Results</th><th>Use of Results</th></tr>
<tr>
<td>Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Students will learn the use and utility of diverse archive document types and their purpose. Students will attempt to use information from these sources to investigate historic topics

[X] CT</td>
<td>Historical Archaeology HIS 180

Direct Measure: Historic Documents Research Project – Research Paper Report. Historic Archaeology is dependent on archives and archive research. Students will learn the use and utility of diverse archive document types and their purpose. Students will attempt to use information from these sources to investigate historic topics designed by the adjunct instructor for this class, from Loudoun County. This requires some out of class work at the Balch Library, County Municipal Records office, and elsewhere.

Students will write a professional-style Preliminary Research Report of all archives consulted and their possible usefulness related to their topic. The goal of the assignment is the process of historical archaeological research and not necessarily the end results. Students needed to demonstrate their competency in understanding how archives and research libraries operated and the material those repositories held.

This particular assignment, along with the entire HIS 180 – Historical Archaeology course, is being reworked by a new adjunct instructor for the Fall 2018 semester.</td>
<td>Semester/year data collected: Spring 2018

Target: A student who has received a grade of “C” or better on this assignment has successfully completed this objective. 90% of students should receive a C or better.

Results:
<table>
<tr><th rowspan="2">Results by Campus/ Modality</th><th colspan="2">Spring 2018</th></tr>
<tr><th>Average Score</th><th>Percent ≥ Target</th></tr>
<tr><td>LO</td><td>90%</td><td>11</td></tr>
</table>
Results by CLO Criteria:
<table>
<tr><th colspan="2">Spring 2018</th></tr>
<tr><th>Average Score</th><th>% of Students ≥ Target</th></tr>
<tr><td>90%</td><td>11</td></tr>
</table>
Ten out of thirteen students demonstrated competence with this learning outcome within this particular assignment (77%).

As the data showed, only a handful of students did not meet the threshold of earning a “C” in this SLO, which caused the percentage to dip below are target percentage. Students who did not earn at least a “C” typically did not complete the related assignment.

Current results improved: N/A - Since this was the first time we assessed a CLO, we have no measurements from past results. This particular assignment, along with the entire HIS 180 – Historical Archaeology course, is being reworked by a new adjunct instructor for the Fall 2018 semester.</td>
<td>Previous action(s) to improve CLO: The program was revised before the Fall 2015 semester as a way to help streamline the learning process and produce more graduates. Since then, we have hired a full-time faculty member with a public history and historic preservation background to teach these classes (hired in August 2015), revised our SLOs (March 2017), improved the curriculum map (March 2017), updated course content summaries (July 2016 and August 2018), and stabilized the program. We have used the SLOs as a way to measure the program’s strengths and weaknesses, always looking for ways to improve, especially in regard to course content delivery (on campus, hybrid, and online).

A challenge we have had is trying to recognize an appropriate sample size for the SLO assessment, using multiple years as a way to indicate whether the data collected is solid or not. We are also embarking on a guided pathway for transferability with the University of Mary Washington and their Historic Preservation program (agreement signed June 2018); however, a definitive timeline for that process has not been determined yet.

Target Met: [ ] Yes [ ] No [X] Partially

Based on recent results, areas needing improvement and current actions to improve CLO based on the results: This was the first time that this Core Learning Outcome, Critical Thinking, was assessed in our APER report. Ten students were</td>
</tr>
</table>

Sample:

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
LO only	1	1	13
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A

*Dual-enrollment

Data was collected from one section of HIS 180 on the Loudoun Campus, which was the only section of the class offered this academic year.

able to successfully complete this objective, demonstrating their critical thinking skills with the research paper, as well as through the other assignments in the course. This particular course is being redesigned and a new adjunct instructor is schedule to teach it going forward (Fall 2018). All of that will help improve our target goal of 90% because the redesigned course can factor in this Core Learning Outcome in the development process for better assessment going forward.

Next Assessment: This Core Learning Outcome could be assessed during the 2018-19 academic year, when we will break down the results from our data collected for analysis, as well as select a different course for evaluation.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Radiography, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed to prepare students to produce diagnostic images of the human body through safe application of x-radiation. The radiographer is a central member of the health care team and assists the radiologist; a physician specialized in body image interpretation. This program emphasizes "hands-on" practice of instructional methods in a state-of the-art laboratory at the Medical Education Campus in Springfield followed by clinical experience at various affiliating health care organizations. Upon successful completion of degree requirements, the student will be eligible to take the American Registry of Radiologic Technology examination leading to certification as a Registered Technologist in Radiography: A.R R.T. (R).

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: Apply Knowledge of anatomy and positioning, and radiographic techniques to accurately image anatomical structures

[X]CT

Evaluation Methods

On Site Training RAD 196

Direct Measure: Specific assessment related to SLO: Radiographic Image Analysis. See attachments: Image Analysis Tool.

GRADING SCALE

A- 94.50 - 100.00
B- 89.50 - 94.499
C - 84.50 - 89.499
D - 74.50 - 84.499
F - Below - 74.499

American Registry of Radiologic Technologist (ARRT) National certification examination.

Category: Imaging Procedures

See Attachments:
ARRT Program Summary-
ARRT National Comparison-

Sample: 39 first years in RAD 196 (4 sections) - total enrollment

Assessment Results

Semester/year data collected: Cohort students: Fall 2018
Target: 80% of students score 90% or higher on assessment

Results: Blackboard Grade Center does not provide an analysis of random blocks on a question-by-question basis. Students presented images they acquired in clinical rotations. Some students presented radiographic exams that were 2 projections, 3 projections, 4 projections or 5 projections. This creates a random block in the Blackboard Grade Center:

Student	Average	Student	Average
1	100	11	100
2	100	12	100
3	100	13	94.40
4	100	14	85.71
5	100	15	93.33
6	95	16	90.48
7	100	17	86.66
8	100	18	100
9	95	19	97.92
10	90	20	93.33

Student	Average	Student	Average
21	93.34	31	100
22	90.48	32	93.33
23	100	33	93.33
24	96.67	34	100
25	92.31	35	96.67
26	92.31	36	95.24
27	97.43	37	95.23
28	96.67	38	86.67
29	100	39	100
30	100		

Result:

- Fall 2018 RAD 196- Image Analysis Average: 95.92
- Fall 2016 RAD 196- Image Analysis Average: 97.67

Use of Results

Previous actions to improve SLO: Implemented in 2016-17: In Spring 2017, Image Analysis was incorporated into RAD 221 Radiographic Procedures II, a non-clinical course. Lab assignments to include image analysis were created for each anatomy and positioning lecture topic. Faculty confirmed that students demonstrated increased knowledge of anatomy and image quality through this assignment. Clinical instructors also noticed improved knowledge of anatomy and image quality during Summer 2017 clinical rotations.

Most recent results: Image Analysis tool was updated to reflect changes from Computed Radiography to Digital or Direct Radiography Imagining X-ray machines. This update was initiated by faculty and approved by the Radiography Advisory Board in Fall 2014.

Current results improved: [X] Yes [ ] No [ ] Partially

Future action: Current scores indicate a drop in student understanding of radiographic anatomy and image quality. Faculty will meet in Spring 2019 to re-evaluate the assessment tool to ensure that it is keeping up with the current changes in Digital Radiography. These changes will be reviewed at the next Radiography Advisory meeting in May 2019.

		• Fall 2015 RAD 196- Image Analysis Average: 97.19 • Fall 2013 RAD 196-Image Analysis Average- 95.99 **Previous Target**: 80% of students score 90% or higher on assessment was met. **Future Target**: 95% of students score 97% or higher on assessment **ARRT Results**: • 2017-18-8.3 NOVA/ 8.3 national results (33 students) • 2016-17-8.4 NOVA/ 8.4 national results (40 students) • 2015-16-8.4 NOVA/ 8.5 national results (37 students) • 2013-14-8.4 NOVA/ 8.5 national results (38 students) • 2011-12-8.6/ 8.5 national results (34 students) • 2010-11-8.6 NOVA / 8.5 national results (50 students) • 2009-10-8.2 NOVA/ 8.5 national results (45 students) ARRT results dropped by one point for 2016-17. Results included scores from two previous students from 2015-16 that retook the certification exam. **Strengths:** Students are able to correctly identify topographic anatomy of the skeletal system, cranial bones, facial bones, urinary system and gastrointestinal system. **Weaknesses:** More image analysis is needed.	ARRT results indicate the program has dropped one point from the prior year. We exceeded the national average in this category. This goal will be monitored again next year. Future Target-9.0 or higher for all students. **Next Assessment:** 2018-19

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Social Sciences, A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This program is designed for students who plan to transfer to a college or university for a Bachelor of Arts or a Bachelor of Science in English, Creative Writing or Writing and/or Rhetoric as an entry-level professional writer.

Core Learning Outcome

Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.
Operationalized as:
SDV 100: Identify three to five aspects of critical thinking such as: identifying faulty logic, problem-solving, and asking questions/probing etc.
[x] CT

Evaluation Methods

Student Development Orientation SDV 100

Direct Measure: Students were quizzed on 5 critical thinking questions embedded in a College Resource Quiz in SDV 100.

Question Topics
- Q9: Thinking creatively
- Q10: Solving problems
- Q15: Critical thinking in high school versus college
- Q17: Narrowing the problem
- Q18: Critical thinking

Sample Size (Specify N/A where not offered)

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
AL	21	13	230
AN	36	32	678
MA (+1 SDV 101)	15	9	161
ME SDV 101	11	5	49
LO	18	13	250
WO	22	5	109
Online	24	17	246
DE*	10	1	21
Total	157	95	1744

*Dual-enrollment

Assessment Results

Semester/year data collected: Spring 2018

Target: 80% of students will answer correctly on the 5 critical thinking questions included on the College Resource and Critical Thinking Quiz.

Results by In-Class, Online, Dual Enrollment:

Campus/ Modality	Q9	Q10	Q15	Q17	Q18	Total
AL	97%	93%	31%	11%	83%	63%
AN	95%	88%	24%	11%	80%	60%
MA	98%	94%	28%	3%	86%	62%
ME	98%	92%	16%	78%	80%	73%
LO	99%	93%	23%	13%	84%	62%
WO	100%	96%	100%	100%	100%	99%
Online	96%	68%	13%	76%	90%	69%
DE	100%	95%	24%	86%	100%	81%
Total AVG	**98%**	**90%**	**32%**	**47%**	**88%**	**71%**

Current results improved: N/A - First time we assess this topic.

Strengths by Criterion/ Question/Topic: Questions 9, 10, and 18 had the best scores due to the fact that they could be assessed by using good test taking skills and singling out other answers that are not the best (multiple choice). The questions are broad enough that even without reviewing the textbook they can be answered.

Weaknesses by Criterion/ Question/Topic:
Questions 15 and 17 had the lowest scores. Question 15 is a question that requires the student to pick several right answers and there is more room for error.
Question 17 had the highest wrong answers because it is not worded directly from the text but it's inferred from

Use of Results

Previous action(s) to improve CLO:
The SDV Curriculum Committee has a yearly mandatory SDV In-Service where we have instructors present on best practices on student engagement and learning (May 2016, May 2017, June 2018).

The Committee has also considered using a different textbook but our primary goal has been to keep the textbook affordable by using OER (Open Education Resources). We have considered that since the textbook is only available online that it discourages students from reading it. The committee reviewed textbooks in 2017-2018 and we voted against the different options because they could not remain free.

At this time we have not found a better free textbook that covers the topic we review in this class.

Most of the assignments required self-assessment and reflection and students feel more comfortable with those assignments than assessments and quizzes that required them to review the textbook available online.
NOVA Online, formerly Online, differed on when/where they assessed the critical thinking questions.

It was not in the first quiz/assessment and not attached to a college resource quiz but it was its own separate quiz. This allows discussion that putting a critical thinking reading

		the reading material and requires a bit more critical thinking to figure out the best answer.	assignment/assessment as its category later on in the class may improve the results. **Target Met:** [ ] Yes [ ] No [x] Partially **Based on recent results, areas needing improvement:** The Critical Thinking CLO is currently located along with College Resources and Communication Skills. Comparing with Online on where they put their assessment, students may do best if Critical Thinking has its own category after Academic and Test-Taking skills. **Current actions to improve CLO based on the results**: Unfortunately, the Fall 2018 assessment is well underway and too late to make any improvements or changes. Critical Thinking is not going to be assessed for Spring 2019. Comparing Spring 2018 to Fall 2018 would allow for more results to see if there is improvement or if the data stays the same. **Next assessment of CT:** Spring 2020

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Geographic Information Systems Career Studies Certificate
Social Science: Geospatial Specialization, A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This program is designed to prepare students to transfer into baccalaureate programs in the geospatial or social sciences at a four-year institution. Students will develop both the theoretical knowledge and a practical facility with geospatial systems.
Geographic Information Systems Career Studies Certificate: This program is designed to help students develop both the theoretical knowledge and a practical facility with GIS. Students who already hold a baccalaureate or master's degrees will acquire the requisite skills and knowledge to switch careers, or to apply spatial analysis in their present workplaces. Students will be positioned to pursue additional coursework toward an associate degree and/or transfer to a four-year institution for further study in the geospatial, environmental or physical sciences; in civil engineering; in information technology; or in business/marketing at a four-year institution.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as:
Students will articulate a complex problem and associated steps to solve based on assessment of project proposal.

[X] CT

Evaluation Methods

Geographic Information Systems II (GIS)
GIS 201

Direct Measure: Measure student ability to articulate a complex problem and associated steps to solve based on assessment of project proposal (rubric attached). Instructors are encouraged to identify any areas of instructional deficiency, rationale for lower scores, and suggested improvements or modification to be considered.

Sample:

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
LO only	1	1	9
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A

*Dual-enrollment

Assessment Results

Semester/year data collected: Spring 2018
Target: 70% of students will score 4 or higher overall
Results:

Results by Campus/ Modality	Spring 2018	
	Average Score	Percent ≥ [Target]
LO only	4.4	77%

Results by CLO Criteria:

Results by CLO Criteria/ Question Topics	Spring 2018	
	Average Score	% of Students ≥ Target
1. Explicitly Ask a GIS Question	4.3	77
2. Explain in a general sense how you propose to answer that question,	5	100
3. Clearly identify the actual data to be used	5	100
4. Describe the maps, tables, charts, or graphs you will make	5	100
5. utilize the graph / table	3.6	67
6. Articulate a plausible solution	3.6	77

Current results improved: N/A – This was the first semester that this CLO was assessed.
Strengths by Criterion/ Question/Topic: Grades students on multiple direct measures of their ability to follow instructions, develop a concept, think the concept out in a stepwise design, and anticipate multiple outcomes and uses.
Weaknesses by Criterion/ Question/Topic: Some topics are problematic when trying to assign a variable score (see rubric – some only have options of 1, 2 and 5) as the possible grad outcomes are did noting, did a bad job, did it as required.

Use of Results

Previous action(s) to improve CLO if applicable:
This was the first semester where CLOs were evaluated.
Target Met: [X] Yes [ ] No
[ ] Partially
Based on recent results, areas needing improvement: A closer look at score of individual components indicates students need to work more on expressing how their analytical output (maps, charts, graphs) will or can be used and be able to explain that in some detail.
Current actions to improve CLO based on the results: For the most part, no changes are planned at this time. However, as we traditionally, provide additional class time to understanding how to utilize products of analytical procedures, later in the class, after the proposals are due, we plan to implement an additional question related to how well the students articulate the use of explanatory elements in the reports associated with their class projects.

Next assessment of this CLO: The next CLO to be assessed will be Civic Engagement in GIS 201 in Spring 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Social Sciences: Teacher Education Specialization, A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This curriculum prepares students to transfer to a 4-year college or university teacher preparation program. It is specifically designed for students who plan to seek endorsement and licensure as teachers in PK-3, PK-6, or special education.

Core Learning Outcome

Critical Thinking – Philosophy of Education

CLO:
Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalized as: students compose a 2-3 page philosophy of education. In their philosophies, they must synthesize information from class, the instructional materials, and their field experiences
[X] CT

Evaluation Methods

Introduction to Teaching as a Profession EDU 200
Semester/year data collected: Spring 2018
Direct Measure: To assess students' critical thinking in EDU 200, students compose a 2-3 page philosophy of education. In their philosophies, they must synthesize information from class, the instructional materials, and their field experiences.

Rubric:
1. How Students Learn (20%)
2. What Students Should Be Taught (20%)
3. How Students Should Be Taught (20%)
4. The Conditions Under Which Students Learn the Best (20%)
5. Qualities That Make Up a Good Teacher (20%)

Sample:

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
AN	1	1	17
MA	1	1	15
LO	1	1	14
ELI	2	2	32
DE*	N/A	N/A	N/A
Total	**5**	**5**	**78**

*Dual-enrollment

Assessment Results

Target: 85% of students will score 85% or higher overall and on each criterion.
Results:

Results by Campus/ Modality	Spring 2018	
	Students Who Met Completed Assignment at 85% or Better	Percent ≥ Target
AN	(16/17) 94%	+9%
MA	(14/15) 93.3%	+8.3%
LO	(11/14) 78.6%	-6.4%
ELI	(29/32) 90.6%	+5.6%

Results by SLO Criteria:

Results by SLO Criteria/ Question Topics	Spring 2018	
	Students Who Met Criteria at 85% or Better	% of Students ≥ Target
1. How Students Learn	66/78 84.6%	-.4%
2. What Students Should Be Taught	68/78 87.1%	+2.1%
3. How Students Should Be Taught	68/78 87.1%	+2.1%
4. The Conditions Under Which Students Learn The Best	68/78 87.1%	+2.1%
5. Qualities That Make Up A Good Teacher	70/78 89.7%	+4.7%

Current results improved: N/A: This SLO has not previously been assessed.

Strengths by Criterion/ Question/Topic: Students do a good job describing the qualities that make a good teacher. Instructors spend a lot of class time discussing field experiences and observations of teacher strengths. In addition, students have enough background knowledge to be successful on this section.

Weaknesses by Criterion/ Question/Topic: Students need more help describing instructional strategies and classroom environment. In addition, students need more help identifying and defining skills and curriculum that should be covered at school.

Use of Results

Previous action(s) to improve SLO: Data on this CLO has not been collected in the past.

Target Met:
[X] Yes [ ] No [ ] Partially

Based on recent results, areas needing improvement: How Students Should Be Taught
What Students Should Be Taught
The Conditions Under Which Students Learn The Best

Current actions to improve CLO based on the results: Instructors will work with students on describing instructional strategies and curriculums. Instructors will be more explicit in pointing out instructional techniques and components of a quality classroom environment beginning Fall 2018.

Next Assessment: Fall 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Substance Abuse Rehabilitation Counselor, Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This curriculum is designed to fulfill the Virginia state educational requirements for the certification of substance abuse counseling assistants. To meet substance abuse counselor assistant certification requirements, the applicant is expected to meet specific education requirements including didactic and experiential learning with a supervised internship required. Individuals desiring skills and knowledge in this career field, but not seeking State Certification may also enroll. Students in this curriculum will participate in at least 3 semester hours of Cooperative Education unless they already have equivalent experience.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.
Operationalized as:
Students will be able to scientific facts of disease and the effects of psychoactive drugs on the central nervous system.

[X] CT

Evaluation Methods

Effects of Psychoactive Drugs HMS 145

Direct Measure: Written Exam

Provided Rubric Criteria or Question Topics:
The exam covered how the brain operates at homeostasis (before any substance use), how the brain operates while under the influence of substances (drugs, alcohol, nicotine, etc.), and how the brain operates and functions post drug use.

Sample Size (Specify N/A where not offered):

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	Students Assessed
AL only	1	1	15
ELI	N/A	N/A	N/A
DE*	N/A	N/A	N/A
Total	**1**	**1**	**15**

*Dual-enrollment

Assessment Results

Semester/year data collected: Fall 2017

Results:

Results by Campus/ Modality	Fall 2017
	Average Score
AL only	81

Results by SLO Criteria:

Results by SLO Criteria/ Question Topics	Fall 2017	
	Average Score	% of Students ≥ Target
1.	81	92

Use of Results

Previous action(s) to improve SLO:
Provide a rubric for an assignment or a more detailed preview and summary of exam.

Target Met:
[ ] Yes [ ] No [x] Partially
No previous standard was set.

Based on recent results, areas needing improvement: The next SLO needs to include a comprehensive exam with multiple choice, fill-in-the-blank, T/F, and short essay.

Current actions to improve SLO based on the results: Creating the comprehensive exam along with short quizzes leading up to the exam as well as videos on topics and in-class discussion. All methods will be geared to preparing for the comprehensive exam in Fall 2019.

Next Assessment: Fall 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Veterinary Technology, A.A.S.

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum will prepare the student for a career as a veterinary technician. Satisfactory completion of the curriculum will make the student eligible to take the Veterinary Technician National Examination for certification as a veterinary technician. The curriculum is broad based and includes both practical and theoretical course work which prepares the student for employment in various areas of animal health care, including veterinary hospitals and research and diagnostic laboratories.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.
Operationalized as:
Explain animal patient assessment, nursing procedures, and the implantation of prescribed diagnostics and treatments, including basic animal care or husbandry.

[X] CT

Evaluation Methods

Intro to Veterinary Technology VET 105

Direct Measure: Completion of written veterinary medical case-based patient scenarios including various decision-making components for animal assessment and nursing procedures in VET 105 (Intro to Veterinary Technology).
See APPENDIX for CLO - VET 105 (Intro to Veterinary Technology) assessment.

Sample:

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
LO	1(OC)**	1	25
ELI	1 (OL)**	1	20
DE*	N/A	N/A	N/A
Total	**2**	**2**	**45**

*Dual-enrollment
**Separate Veterinary Technology Program Cohorts:

- On-Campus (full-time) = OC
- Online (part-time) = OL

Assessment Results

Semester/year data collected: Fall 2017

Target: 100% of students will score 70% or higher on each scenario topic question

Results by Enrollment – OC and OL Cohorts:

Results by Campus/ Modality	Fall 2017	
	Average Score	Percent ≥ Target
LO	3.81 of 4 points (95%)	100% > target
ELI	41.5 of 50 points (83%)	100% > target
Total	**89%**	**100%**

Results by CLO Criteria – OL Cohort:

Results by Toxicity Question Topics	Fall 2017	
	Average Score	% of Students ≥ Target
Q#1 - Plants	16.5 of 20 points (82.5%)	58% > target
Q#2 -Chocolate	7 of 9 points (77.7%)	81% > target
Q#3 – Xylitol	6 of 9 points (66.7%)	44% > target
Q#4 – Rodenticide	12 of 12 points (100%)	100% > target
Total	**81.7%**	**70.75%**

Current results improved: N/A: This CLO has not previously been assessed.

Strengths by Question Topics:

Use of Results

This CLO has not been previously assessed.

Target Met - OC Cohort:
[X] Yes [ ] No [ ] Partially

Target Met - OL Cohort:
[ ] Yes [ ] No [X] Partially

Based on recent results, areas needing improvement: For OC students, they need to differentiate between clinical signs and treatment protocols for varying classes of rodenticides. For OL students, they need the most improvement with calculating toxicity level of Xylitol and Chocolate along with anticipated diagnostic tests, treatments and nursing interventions to prepare for based on evidence-based protocols of care. They also need to improve upon describing specific client triage advice prior to and after client/owner arrival to veterinary medical facility. Both OC and OL students need to apply knowledge regarding species anatomy based on physical exam palpation and veterinary nursing assessment.

Current actions to improve CLO based on the results: Additional written assignment or quizzing specifically regarding the varying classes of rodenticides and practice toxicity calculation problem sets.

		• Triage of small animal patients including telephone (pre-arrival to facility) • Case-based with patient history taking component to simulate real-world client interactions and communications. Calculating toxic dosages and applying to particular patients to determine if they have ingested a life-threatening amount of toxic material • Use of credible Internet resources provided to students **Weaknesses by Question Topics:** • Plant Toxicity Questions – missing explanation of abnormal physical assessment findings as relates to applied anatomy • Chocolate Toxicity Questions – lacking explanation of patient monitoring parameters basic animal care • Xylitol Toxicity Questions – lacking order of priority nursing care and treatment explanation • Rodenticide Questions – emphasizes memorization vs. application of rodenticide information	Beginning in Fall 2018, review veterinary anatomy in-class for OC cohort and during campus lab visits for OL cohort with class exercises on how this applies to patient illness and disease as well as proper animal patient restraint, handling and implementation of nursing procedures based on patient priority needs. **Next Assessment:** Fall 2018 and Fall 2019 when both courses are next offered, with biennial reporting in 2020.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Welding: Basic Techniques Career Studies Certificate

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community college is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: The curriculum is designed primarily for students who wish to find employment in various industries as entry-level welders. The curriculum emphasizes the study of equipment, reading of blueprint designs, and the various welding processes utilized in today's industry.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalization:
Apply basic machine and technique adjustments to solve typical welding problems.

[X] CT

Evaluation Methods

Arc Welding WEL 121

Direct Measure: Students were assessed based on a classroom assignment. Criteria - Students will:

- Perform visual inspections of examples depicting different bad welds
- Examine, analyze and explain the cause of bad welds
- State corrective action required to prevent bad welds.

See attached sheet students completed for this SLO. Samples were actual welded coupons- unable to attach.

Sample:

Campus/ Modality	# of Total Sections Offered	# of Sections Assessed	Students Assessed	
			#	%
MA only	1	1	15	100
ELI	N/A	N/A	N/A	N/A
DE*	N/A	N/A	N/A	N/A
Total	**1**	**1**	**15**	**100**

*Dual-enrollment

Assessment Results

Semester/year data collected: Fall 2017

Target: 80% of students passing with a score of 80% or higher

Results:

Results by Campus/ Modality	Fall 2017		Fall 2016	
	Average Score	Percent ≥ Target	Average Score	Percent ≥ Target
MA only	90	90	86	85

Use of Results

Target Met:
[X] Yes [ ] No [ ] Partially

The score was identical to the previous assessment. To improve even more, the Welding faculty is going work with the students using the American Welding Society standards for visual inspection. Also, the peer inspections which started last year seem to help the students because they are learning from each other.

Next Assessment: Fall 2018

Disciplines

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Biology

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Program Purpose Statement: The curriculum is designed for persons who are interested in a professional or scientific program and who plan to transfer to a four-year college or university to complete a baccalaureate degree program with a major in one of the following fields: agriculture, biology, chemistry, pre-dentistry, forestry, geology, home economics, nursing, oceanography, pharmacy, physics, physical therapy, pre-medicine, science education, or mathematics.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
Critical Thinking: Students will locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions. Operationalized using: SLO #2: Students will understand the scientific method and identify methods of inquiry that lead to scientific knowledge.	**General Biology I** BIO 101 **Direct Measure/Criteria:** A quiz on the Scientific Method was available on Blackboard to all BIO 101 students in the college (students from all campuses including online and DE) towards the end of the Fall 2017 semester. The quiz consisted of 10 multiple choice questions that assessed steps in the Scientific Method. The topics were as follows: • Item #1: observation • Item #2: order of steps • Item #3: define of hypothesis • Item #4: validity of hypotheses • Item #5: importance of control • Item #6: definition of data • Item #7: example of hypothesis • Item #8: definition of variable • Item #9: definition of theory • Item #10: defining data collecting This assessment is the same as the assessment used the previous year. The assessment tool was deployed on Blackboard to all 572 students taking BIO 101 on all campuses (AL, AN, LO, MA, WO), online and dual enrolled students. The exact total number of students in BIO 101 during Fall 2017 is not available, but it is around 1600. This approximate number allows us to determine that about a third of all students responded to the Blackboard notice and took the quiz. Dual enrollment students were included, and 101 DE students (17.6% of the total) took the assessment. In the case of NOVA Online 128	**Data Collection**: Fall 2017 **Targets:** For the whole quiz, 70% of students achieving 70% on the quiz. For each item, 70% of students correctly answering that item. **Results** by In-Class, Online, Dual Enrollment: (Specify N/A where not offered) **Results by Campus/ Modality** / **Average Score/% All Students Fall 2017** / **Percent Earning above 70%** In-class: N/A / N/A Online: N/A / N/A DE*: N/A / N/A **Total Average: 84.2 / 88.5** *Dual-enrollment Average/Mean Score for Science Majors by In-Class, Online, Dual Enrollment: (Specify NA where not offered) **Results by Campus/ Modality** / **Average Score/%** / **Percent of Students at or above 70%** In-class: N/A / N/A Online: N/A / N/A DE*: N/A / N/A **Total Average: 83.3 / 87.8** *Dual-enrollment	**Previous Actions to improve CLO:** Instructors and students of BIO 101 are becoming more used to assessment by Blackboard. During the Fall 2018 Cluster meeting, faculty members requested results of the previous year's data. These data were sent to the Biology discipline chair for dissemination. **Based on Results, areas needing improvement:** The low achievement results on Items 1 and 9 are important to the biology faculty, because they show that students do not understand that curiosity is the first step of solving a scientific problem through the scientific method. Also, the term "theory" in science continues to confuse students. Students' wrong answers indicate that they do not realize "theory" in science is not a hypothesis, but a well-substantiated explanation of the natural world. It is valuable for instructors to have this feedback. **Current Actions to improve CLO based on the results:** The discipline chair recently elected in the Biology discipline in Fall 2018 has already seen this data. She wants to work with faculty on the concepts of the two low-scoring questions for the 2019-20 academic year. We need to find out if students are not understanding the concepts or if there is a problem with the question itself.

NOVA Online students (22.3% of the total) took the assessment.
The number of students from each campus and from online were not tallied. However, the student ID numbers are in the raw data, and specific information can be gleaned from the data.

Like the previous year, students identified themselves by major. This allowed us to compare results from students' program placed in General Studies (219), Social Science (195) and Science (279). Note that these numbers add to 693; some of the students listed double majors.

Sample: (Specify N/A where not offered):

Campus/ Modality	Total # Sections Offered	# Sections Assessed	# Students Assessed
AL	N/A	N/A	N/A
AN	N/A	N/A	N/A
MA	N/A	N/A	N/A
ME	N/A	N/A	N/A
LO	N/A	N/A	N/A
WO	N/A	N//A	N/A
ONLINE	N/A	N/A	N/A
DE*	N/A	NA/	N/A
Total			**572**

* Dual-enrollment

Results by SLO/CLO Criteria:

Results by SLO Criteria/ Question Topics	A.S. Assessment Results Spring 2018	All Student Results Spring 2018
	Average Score/%	Average Score/%
Item 1	57.8	64
Item 2	95.3	94
Item 3	90.6	92.4
Item 4	90.6	88.9
Item 5	78.1	81.1
Item 6	93.9	93.8
Item 7	84.5	85.4
Item 8	87.8	87.4
Item 9	63.4	65.7
Item 10	88.1	89.6
Total	**87.8**	**83.3**

Results indicate that for both student groups, average scores are well above 70%, and most (8 out of 10) individual items meet achievement goals. Scores were very similar to those of last year. The lowest scores were in items 1 and 9. Item 1 asked about the first step in the Scientific Method. The other low score was Item 9 which asked the definition of the word "theory."

Current results improved:
[ ] Yes [ ] No [X] Partially

Scores from students program placed in Science, Social Science and General Studies are very similar.

In the 2015-16 academic year, students scored below 70% in questions 1, 2 and 9 (42%, 47.5%, and 57.4%). In 2016-17, students scored below 70% in questions 1 and 9 (65.4% and 66.6%). This cycle, students also scored below 70% in questions 1 and 9 (64% and 65.7%). This shows a marked improvement in identifying the steps of the Scientific Method (question 2) over the years assessed, and an improvement in general knowledge of Scientific Method.

This is the second year that A.S. Science students were identified in the assessment. Although most A.S. Science majors take BIO 101, many students in General Studies and Social Sciences and other majors also take BIO 101. Faculty assessing Social Science and General Studies asked if we could identify their students, since those programs also wish to use this Scientific Method assessment for students in their majors. For the 2018-19 assessment year, we plan to add A.S. Liberal Arts.

It is interesting that the results again show very similar results for students, regardless of major. BIO 101 is a class taken by science students early in their academic career, and results show that science students at this early stage did not outperform students in other majors.

In this assessment, we were able to demonstrate for the first time that students from all campuses, NOVA Online and Dual Enrollment took part. In the current Blackboard setup, each question is posed as an independent, little exam, and that it takes more time for students. The two more questions about NOVA Online and DE that two more questions did not discourage students. Nearly 18% of student responders were DE, and 22% were NOVA Online students.

The next assessment for this CLO:
Spring 2019.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Economics

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Discipline Purpose Statement: Economics provides an objective interpretation of human behavior. Rational and predictable economic behavior allows for the quantification and logical analysis of many social problems. Also, an understanding of how the national and international economy functions is critical to success in today's business environment. At the macro-level, how national governments influences the economy and how that affects industry are pertinent to students entering the business world. At the micro-level, explorations of consumer theory, theory of the firm, market structures, and resource markets contribute to students' understanding of the underpinnings of capitalism.

The two principles courses, ECO 201 Principles of Macroeconomics and ECO 202 Principles of Microeconomics, prepare transfer students pursuing degrees in business, sciences, or the arts with the knowledge and abilities to master more advanced economics courses in four-year colleges and universities. The courses also endow applied degree students in career-technical programs with an economic background for professional and personal endeavors requiring economic skills and awareness.

Core Learning Outcome

CLO:
Critical thinking
Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act.

Operationalization:
Respond to multiple choice exams on micro and macroeconomics.

[X] CT

Evaluation Methods

Macroeconomics and Microeconomics ECO 201 and ECO 202

Direct Measure: Examination

Provided Rubric Criteria or Question Topics:
List Topics Covered on Examination
Macroeconomics

- The Economic Problem
- Supply and Demand
- Measure of Total Production and Income
- Jobs and Unemployment
- Consumer Price Index and Cost of Living
- Fiscal Policy
- Aggregate Demand and Aggregate Supply
- Aggregate Expenditure Multiplier
- Finance, Saving and Investment
- Monetary Policy

Microeconomics

- Definition of Economics
- The Economic Problem
- Demand and Supply
- Price Elasticity of Demand
- Government Actions in Markets
- Production and Cost
- Perfect Competition
- Monopolistic Competition
- Oligopoly

Other Method (if used):

Assessment Results

Semester/year data collected: Spring 2018

Target: 85% of students will score 85% of higher.

Results by In-Class, Online Dual Enrolled: (Specify N/A where not offered)

Results by Campus/ Modality	Current Assessment Results		Previous Assessment Results
	Average Score	Percent ≥ Target	Average Score
AL			
AN			
MA			
ME			
LO			
WO			
ELI			
DE*			
Total			

*Dual-enrollment

Target Met:
[ ] Yes [x] No [ ] Partially
Based on recent results, areas needing improvement:
The poor participation of campuses in this assessment resulted in a poor sample size which could not have been used to generate meaningful results to serve as a good source of reference.

Use of Results

Previous action(s) to improve CLO: The Discipline Group (previously known as the Economics Cluster) designated a group of instructors to formulate questions. Each campus was required to administer the tests and compile the results to be submitted to two instructors who were assigned the task of analyzing and summarizing the results.

The Cluster was unable to perform this assessment because most of the campuses failed to submit their test results by the due date. Many reasons can be attributed to the poor response rate but most prominent among them were disagreements over the type of questions on the test, the topics covered on the test and the deadline for administering the test.

These problems were exacerbated by the lack of accountability that characterized the previous administrative structure of the college.

Current actions to improve CLO based on the results:
The Economics Steering Committee - created under the reorganized administrative structure and closely supervised by a Pathway Dean - is committed to making the necessary effort to avoid some of the problems that resulted in

Sample Size (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed	Students Assessed	
			#	%
AL	17	0	0	0
AN	30	0	0	0
MA	17	0	0	0
ME	0	N/A	N/A	0
LO	23	0	0	0
WO	15	0	0	0
ONLINE	24	0	0	0
DE*	N/A	N/A	N/A	N/A
Total	**126**	**0**	**0**	**0**

**Dual-enrollment

Results by CLO Criteria: (Specify N/A where not offered)
**Dual-enrollment

Current results improved:
[ ] Yes [ ] No [ ] Partially
Strengths by Criterion/ Question/Topic:
Weaknesses by Criterion/ Question/Topic:

the low level of participation and poor quality of data collected in the previous period.

With each campus represented on the Committee, the level of consultation with members has greatly improved and the Steering Committee, in turn is making an effort to solicit the views of colleagues on their respective campuses so that the Committee's decisions are broad-based and representative of the views of the Discipline Group. Steering Committee members are also making an effort to have a thorough understanding of the data collection, analysis and the reporting process, so that they can provide a clear guidance to Discipline Group members on their respective campuses to help improve the quality of data collected.

I am hopeful that the improvement in the level of participation and the more cooperative atmosphere that prevails among members of the Discipline Group will ultimately result not only in a better quality data, but also a timely submission of data needed to prepare reports. These actions will be implemented in Spring 2018

Next assessment of this CLO:
Spring 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
English

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: This program is designed for students who plan to transfer to a college or university for a Bachelor of Arts or a Bachelor of Science in English, Creative Writing or Writing and/or Rhetoric as an entry-level professional writer.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will demonstrate the ability to evaluate evidence carefully and apply reasoning to decide what to believe and how to act. Operationalized as: the ENG Discipline Group selected 1 of our existing Student Learning Outcomes (SLO): Student analyzes written, oral, and visual texts. **[X] CT**	**Survey of American Literature I** ENG 241 **Direct Measure:** Student essays from ENG 241. Rubric attached. To assess critical thinking, the ENG Discipline Group selected 1 of our existing Student Learning Outcomes (SLO): Student analyzes written, oral, and visual texts. In Spring 2018, a subcommittee of 7 full-time disciplinary faculty designed a 2-criteria rubric to measure student learning for SLO 2 and for SLO 4, Student integrates evidence and competing primary and/or secondary claims effectively into argument-based writing (or other) assignments. The CLO assessment did not use SLO 4. The assessment of this SLO will be discussed in the 2017-18 Annual Planning and Evaluation Report. The faculty subcommittee tested the two SLO rubrics used by norming them against samples from Fall 2017 semester ENG 241 students. The samples were provided by 2 of the faculty on the committee. This assessment relied upon random sampling of students. Samples were generated by the Office of Student Success Initiatives (OSSI). For each section, a sample of 5 students and 3 alternates was generated. Additionally, OSSI generated a list of all students in ENG 241 who were enrolled in the Liberal Arts-English Specialization degree program. Faculty who taught sections of ENG 241 were requested to provide a written assignment and responses written by 5 of those randomly selected students and all English Specialization students identified by OSSI. Only 4	**Semester/year data collected:** Spring 2018 **Target**: Students average scores on the two rubric criteria will be at least 2. **Results by In-Class, ELI, Dual Enrollment:** SLO 2a: Student analyzes written, oral, and visual texts: Identifies content, structure, and rhetorical features of the text(s) under consideration in the paper. **Results by In-Class, ELI, Dual Enrollment:** SLO 2b: Student analyzes written, oral, and visual texts: Appropriately employs critical terminology in written work **Current results improved:** N/A - This CLO has never been assessed by the English Discipline Group. Improvement cannot be determined at this time. **Strengths by Criterion/ Question/Topic:** Students seem to be able to analyze texts with competency, as demonstrated by the overall average score of 2.23 on SLO 2a:	**Previous action(s) to improve CLO:** None - This is the discipline's first attempt to assess CLOs; therefore, past results are unavailable. **Target Met:** [ ] Yes [ ] No [X] Partially **Based on recent results, areas needing improvement:** **Assignment design:** The ENG Discipline needs to further investigate the alignment of assignments to student learning outcomes (SLOs). The data comparing on campus and online versions of the course demonstrate that student success varied between these two delivery modes, which may be related to the type of assignments given in each setting. Faculty development that focuses on assignment design would help ensure that assignments incorporate student learning outcomes without mandating particular pedagogical approaches that would limit academic freedom. Additionally, the assignments submitted as part of this assessment could be used as a starting point for discussing the variety of ways SLOs can be incorporated. Incorporation of critical or literary terminology in analysis papers and acknowledging competing, or at least alternative, claims are consistent area of concern. This may suggest that assignments do not explicitly require that students apply the terminology taught in the classes and/or that the assignments assessed do not require students to incorporate other points of view into their papers. **Current actions to improve CLO based on the results:** Revision of Course Content Summaries*:* The ENG Discipline Group has formed a committee to

Results by Campus/ Modality	Spring 2018 Average Score
AN	2.43
MA	2.25
WO	1.42
ELI	2.33
Total	**2.23**

Results by Campus/ Modality	Spring 2018 Average Score
AN	2.29
MA	1.67
WO	0.92
ELI	1.45
Total	**1.66**

Specialization students were enrolled in ENG 241, and all are represented in the data set.

Spring 2018 data were scored by 5 disciplinary faculty in September 2018; 2 of these disciplinary faculty had been part of the rubric generation. Each student essay was scored by 2 faculty readers. During the scoring session, faculty had the opportunity to discuss divergent scores and used these discussions to refine application of the scoring rubrics.

Sample Size (Specify N/A where not offered)

Campus/ Modality	# of Total Sections Offered	# Sections Assessed	# Students Assessed
AN	3	3	14
MA	1	1	6
WO	1	1	6
ELI	4	4	21
DE*	N/A	N/A	N/A
Total	**9**	**9**	**47**

*Dual-enrollment

Identifies content, structure, and rhetorical features of the text(s) under consideration in the paper.

Weaknesses by Criterion/ Question/Topic: Not all students used literary terminology or other critical terminology in their analyses (SLO 2b: Appropriately employs critical terminology in written work).

Limitations of the analysis: Though ENG 241 is the most frequently offered 200-level literature course in the discipline, it was not offered on all campuses, nor were many sections offered on each campus. Average scores, especially on the Woodbridge campus, skewed lower due to performance of one student in the small 6-student sample. The next time this SLO is assessed, we will determine whether variation between campuses is a trend that needs to be addressed in either the Discipline Group or the Language Pathways Council.

We have discovered that capturing data from our specialization students is extremely challenging. The Discipline Group committee that developed this assessment did not feel that it would be appropriate to capture data from specialization students in ENG 111, 112, or 125 as these are the foundational courses and would not truly allow us to differentiate between our specialization students' learning and that of other students.

review the 200-level literature Course Content Summaries (CCS). This committee will recommend changes to the CCS for ENG 241 and other literature courses to ensure that the SLOs for the discipline and specialization are better reflected in the CCS (Spring 2019).

Initiation of a standing subcommittee for assessment: The ENG Discipline Group will initiate a standing subcommittee for assessment. This subcommittee should develop assessment plans, including developing rubrics to assess the SLOs for both the Discipline and English Specialization as well as for the Core Leaning Outcomes (Spring 2019).

Professional Development—Rubric and assessment development: The committee tasked with developing assessments and creating rubrics should receive some training to assist with these tasks (Spring-Fall 2019).

Professional Development—Assignment Design: The ENG Discipline Group will investigate resources for assignment design professional development (Spring-Fall 2019).

Professional Development—Scoring Opportunities: The initial group of 5 faculty scorers appreciated the opportunity to score and have conversations about these essays. The discussions about divergent scores and the assignments that prompted student work assessed were valuable opportunities to better understand teaching and learning. In the future, the ENG Discipline Group would like to broaden this opportunity to include other full-time disciplinary faculty. Adjunct faculty, too, would find this activity valuable; however, the Discipline Group recognizes that there should ideally be some sort of stipend or additional compensation provided as this is a labor-intensive assessment method (seek funding for 2019-20 Academic Year).

Next assessment: Spring 2020

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
History

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Program Purpose Statement: History is the study of the past, in an attempt to understand the human condition as it changes and remains the same over time. At its core, the Discipline aims at satisfying and stimulating intellectual curiosity by encouraging questioning and developing knowledge. Finally, the Discipline is actively engaged in translating the skills acquired in the classroom to a wide-range of professional settings that require effective communication, critical thinking and information literacy such as law, education, journalism, policy analysis, and archives.

Core Learning Outcome

CLO: Critical thinking
Students will think critically in evaluating information, solving problems and making decisions.

Operationalized as:
SLO 2: Evaluate primary and/or secondary documents for their credibility and/or use in explaining the past.
HIS 101

Evaluation Methods

Course used: History of Western Civilization HIS 101

Direct Measure: Essay
Provided Rubric Criteria or Question Topics
Other Method (if used):
Sample Size (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed
AL	12	4
AN	39	12
MA	13	4
ME	N/A	N/A
LO	23	8
WO	15	12
ONLINE	17	3
DE*		
Total	**119**	**43**

*Dual-enrollment

Assessment Results

Semester/year data collected: Fall 2017
Target: 80% of students will achieve a score of 80% or better.
Results

Results by Campus/Modality	Current Assessment Results	
	Average Score	Percent ≥ Target
AL	89%	91%
AN	91%	92%
MA	84%	88%
LO	85%	84%
WO	83%	85%
ONLINE	79%	81%
DE*		
Total	**83**	**86%**

Results by SLO Criteria:

Results by SLO Criteria	Current Assessment Results	
	Average Score	% of Students ≥ Target
1. Grammar	81%	83%
2. Clarity of writing	82%	77%
3. Comprehension of Primary Source	85%	88%
4. Analysis of Primary Source	83%	87%
5. Logical Thinking	85%	83%
6. Understanding of Historical Context	85%	91%
Total	**84%**	**85%**

Current results improved: N/A
[ ] Yes [ ] No [ ] Partially
Strengths by Criterion/ Question/Topic:
The two greatest strengths of the students were Logical Thinking and Understanding of Historical
Weaknesses by Criterion/ Question/Topic:
There two greatest weaknesses are both related to writing: Grammar and Clarity of prose.

Use of Results

Previous action(s) to improve SLO:
1. Attended one meeting on the overview of SLO testing. Attended another meeting concerning the rewrite of the SLOs
2. Rewrote SLOs and had them approved.
3. Discussed at multiple Discipline meetings the nature and goals of the SLOs
4. Created a series of online polls to find out which topics the professors would like to use in the SLO questions.
5. Implemented History SLOs for the first time.

Target Met:
[X] Yes [ ] No [ ] Partially

Based on recent results, areas needing improvement:
1. Communication: The professors need to be communicated with to a much greater extent. They need to have input on what the questions are and how they are to be tested.
2. It is necessary that the whole process begins earlier. For example: NOVA Online questions should be developed before July.
3. Dual enrollment students need to be tested.

Current actions to improve SLO based on the results:
1. We have created a series of online pools to allow the professors to decide which areas they think it would be best to test.
2. Have dual reached out to both NOVA Online and Dual Enrollment for their assistance.
3. Increase our goal from 80% of the students meeting the goal to 90%.

Next assessment of this SLO: Fall 2019

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Physics

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Program Purpose Statement: The curriculum is designed for persons who are interested in a professional or scientific program and who plan to transfer to a four-year college or university to complete a baccalaureate degree program with a major in one of the following fields: agriculture, biology, chemistry, pre-dentistry, forestry, geology, home economics, nursing, oceanography, pharmacy, physics, physical therapy, pre-medicine, science education, or mathematics.

Core Learning Outcome	Evaluation Methods	Assessment Results	Use of Results
CLO: Critical thinking Students will think critically in evaluating information, solving problems and making decisions. Operationalization: Specifically for the physics learning outcome, students will be able to use mathematical reasoning to draw logical conclusions and make well-reasoned decisions. **[x] CT**	General College Physics I **PHY 201** **Direct Measure:** A problem on a thermodynamics topic was proposed to all the students in the sections participating to the assessment. The topic is generally discussed in the last weeks of the semester, and hence the problem was presented in the student's final exams. The problem involved calculating the specific heat of an alloy heated at a high temperature and subsequently dropped in a cup of water. From the temperature drop interval, and the masses values, one should be able to determine the unknown quantity. To solve the problem, students need to use their critical thinking skills to correctly picture the situation. For example, in the text it is written that the alloy cools by 50 degrees, students must realize that this information translates into the use of a negative temperature gauge in their solutions. A common rubric was used for scoring. Three evaluating criteria were established associated with correctly answering the assigned problem according to three steps: 1) Identifying the correct formula, 2) Utilizing the correct information and the parameters given 3) Using the correct algebra to solve the problem. Each criteria was scored from 0 to 2. This method was also used in the previous SLO assessment for the Fall 2016. A total of 112 students participated to the SLO, 78 of them were A.S. Science program placed. In Spring 2018, Dual Enrollment classes were not taking PHY 201. The Online course did not send any results.	**Semester/year data collected**: Spring 2018 **Target:** Achievement target is considered at 70% success rate with a score of 2 on all three SLO assessment criteria. **Results** by In-Class, Online, Dual Enrollment: (Specify N/A where not offered) The number of students in some sections is around 10 students (with an average of 16 students), it is not of statistical significance to differentiate the results from campus to campus, class to class. **Average/Mean Score** by In-Class, Online, Dual Enrollment: (Specify N/A where not offered) **Results by CLO Criteria**: (Specify N/A where not offered) The score of "2" is the highest ranked score for each criteria. Students with a score of 2 showed to think critically in evaluating the information provided, in making the right decisions, and in solving the problem with a correct reasoning.	**Previous action(s) to improve CLO:** The physics faculty stressed over the importance of showing all the steps to solve a problem. It is important to follow the train of thoughts leading to the solution and most important is to write it down on paper. **Target Met:** [x] Yes [ ] No [ ] Partially **Based on recent results, areas needing improvement:** As always the case, the major area needing improvement is the understanding of the connection between the math equations and the related physics equations simply written with different symbols. This sometimes disorients students with not strong math preparation. **Current actions to improve CLO based on the results:** Have more sections comply with the request to perform the SLO. Several general reminder emails were sent over the semester, but not all sections adhered. Possibly more personal emails will be sent, in the hope that we will reach a higher participation rate. **Next assessment of this CLO:** Fall 2018

Results by Campus/ Modality	Current Results [Semester/ year]	Previous Results [Semester/ year]
In-class		
Online		
DE*		
Total Average		

*Dual-enrollment

Physics

All campuses took part of the assessment, but unfortunately not all sections joined the project.

Sample Size (Specify N/A where not offered)
Note: The second number marked (between parentheses) represents the data only for the students in A. S. Science.

Campus/ Modality	Total # Sections Offered	# Sections Assessed	Students Assessed	
			#	%
AL	2	1	10 (7)	9 (9)
AN	4	1	16 (13)	14 (17)
MA	2	1	21 (19)	18 (24)
ME	N/A	N/A	N/A	N/A
LO	2	2	36 (17)	32 (22)
WO	2	2	29 (19)	26 (28)
ONLINE	1	0	0	0
DE*	N/A	N/A	N/A	N/A
Total	**13**	**7**	**112 (78)**	

*Dual-enrollment

Reported in the table below are the results for all sections.

Results by CLO Criteria	Current Assessment Results Spring 2018		Previous Assessment Results Fall 2016	
	Score	% of Students ≥ Target	Score	% of Students ≥ Target
1. Identify the correct formula	2	76% (78%) 6% (8%) > target	2	81% (81%) 11% (11%) > target
2. Correctly insert the given into the context of the problem	2	76% (78%) 6% (8%) > target	2	73% (71%) 3% (1%) > target
3. Solve the problem with accurate use of algebra	2	75% (76%) 5% (6%) > target	2	73% (74%) 3% (4%) > target

To be noted is the difference between the 2016 and the 2018 percentage of students who were able to identify the correct physics formula necessary for the solution: 81% respect to 76%. It seems like more students better understood the connection between the problem and the physics. But on a deeper analysis, in the 2018 overall results the same group was able to move forward and complete effectively the problem using critical thinking skill, while in 2016, 8 % of the students was lost and not covered all the correct set of steps.
With some small deviations, in 2018, 76% of the population started, and successfully ended the assessment.

The target of 70% was achieved and passed by 5%.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018

Sociology

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Discipline Purpose Statement:

Core Learning Outcome

CLO: CT is the ability to use information, ideas and arguments from relevant perspectives to make sense of complex issues and solve problems.

Operationalization: for the critical thinking CLO we asked students to read a short article and then answer 10 multiple choice questions about the article.

Evaluation Methods

Course(s): SOC 200 Principles of Sociology

Direct Measure described:
CT was measured using 10 multiple choice questions.

(Method attached to email or report.)

Rubric Criteria/Question Topics:
Critical Thinking:
1. which social groups influence teens.
2. Families and values
3. families and social pressure
4. time and social pressure
5. race and family structure
6. major and minor sources of socialization
7. peer pressure
8. Identification of evidence.
9. connecting claims and evidence
10. outlining main points of an essay

Sample Size (Specify NA where not offered.)

Campus/ Modality	# of Sections Offered	# of Sections Assessed	Students Assessments #	%
AL	5	5	87	75
AN	22	11	229	75
MA	4	3	66	85
ME		n/a		
LO	8	6	84	63
WO	10	7	147	
ELI		0		
DE*		n/a		
Total			**613**	

*Dual-enrollment

Assessment Results

Semester/Year Data Collected: Spring 2018

Target: 70%

Overall Results by In-Class, Online, Dual Enrollment: (Specify NA where not offered.)

Results by Modality	Average Score
In-class	78%
Online	N/A
DE*	N/A
Total	

*Dual-enrollment

Results by CLO Criteria: (Specify NA where not offered.)

Results by Criteria/	AVG Score
1.	51%
2.	53%
3.	89%
4.	78%
5.	81%
6.	38%
7.	93%
8.	79%
9.	87%
10.	75%
Total	**72%**

Strengths/Weaknesses: We absolutely hit our benchmarks of 70% passing for both SLO's.
The weakness in our results is that we did not break out data by individual students.
Results compared to past assessment(s) (if applicable):n/a

Use of Results

Previous action(s) to improve CLO if applicable):
Our first attempt at an assessment in Fall 2017 did not address the SLOs and were instead too narrowly focused on one specific concept.
Spring 2018 data collection
We chose a specific SLO for the discipline (understanding cultural knowledge) and a general education SLO (critical thinking). This was already a vast improvement over our attempt in Fall 2017 where our evaluation was based on a specific concept rather than an SLO.
For the critical thinking SCLO we asked students to read a short article and then answer 10 multiple choice questions about the article.
Overall results showed that all 5 campuses achieved our target score of 70% and above.
Target Met: 70%
[x] Yes [ ] No [ ] Partially
Areas needing improvement, based on recent results:
Data sets will be broken down by teaching modality, class, campus, and adjunct/full-time instructor.
All faculty will administer the evals on Blackboard to minimize the effects of different testing on results. These changes will be implemented in Fall 2018.
Current actions to improve SLO based on the results:
We have already taken a number of steps to improve future SLO evals. We were the first discipline group to agree on one textbook for all intro courses across campuses. This decision was made in the spring of 2017 and implemented across all campuses in Fall 2017.
We will also be discussing the following issues in the upcoming discipline meetings to improve our evaluations:
The inclusion of ELI data
Constructing an excel spreadsheet to break down data into more specific categories for analysis (for example, to look at individual students)
Setting the benchmark higher
Addressing areas of the Spring 2018 where students seemed weakest
Next assessment of this CLO (semester/year):
The next assessments will be administered in Fall 2018 and Spring 2019. They will both evaluate the CLO of Civic Engagement.

Critical Thinking Core Learning Competency Assessment Report: 2017-2018
Student Development

NOVA Mission Statement: With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Discipline Purpose Statement: Student Development Success provides students with skills in time management, note taking and test preparation, academic planning, career decision making, financial literacy and critical thinking. Students also learn about NOVA policies, procedures and resources.

Core Learning Outcome

CLO: Critical thinking
Students will think critically in evaluating information, solving problems and making decisions.

Operationalization: SDV 100: Identify three to five aspects of critical thinking such as: identifying faulty logic, problem-solving, and asking questions/probing etc.

Evaluation Methods

Student Development SDV100

Direct Measure:
Students were quizzed on 5 critical thinking questions embedded in a College Resource Quiz in SDV 100.

Question Topics
Critical thinking and Creativity; developmental critical thinking; how to approach a problem critically; what is critical thinking?

Sample Size (Specify N/A where not offered)

Campus/ Modality	Total # Sections Offered	# Sections Assessed	Students Assessed	
			#	%
AL	21	13	230	47
AN	36	32	678	69
MA (+1 SDV 101)	15	9	161	41
ME SDV 101	11	5[*3]	49	23
LO	18	13	250	50
WO	22	5[*2]	109	20
ONLINE	24	17	246	59
DE*	10	1[*1]	21	19
Total	**157**	**95**	**1744**	**42**

*Dual-enrollment

[1] 4 sections submitted SLO data but only one Dual Enrollment section that submitted data was included, the other 3 sections that submitted data did not have the quiz questions assessed. Dual Enrollment offering a different template of SDV was supposed to be resolved last year, there is still a rogue template out there.

[2]The Woodbridge Campus continues to not have instructors to submit assignments. Instructors are contacted 4 times throughout the semester and twice after the semester reminding them to submit the data, instructional videos,

Assessment Results

Semester/year data collected: Spring 2018

Target: 80% of students will answer correctly on the 5 critical thinking questions included on the College Resource and Critical Thinking Quiz.

Results by In-Class, Online, Dual Enrollment:
(Specify N/A where not offered)

Campus/ Modality	Q9 (%)	Q10 (%)	Q15 (%)	Q17 (%)	Q18 (%)
AL	97	93	31	11	83
AN	95	88	24	11	80
MA	98	94	28	3	86
ME	98	92	16	78	80
LO	99	93	23	13	84
WO	100	96	100	100	100
ONLINE	96	68	13	76	90
DE	100	95	24	86	100
Total Average	**98**	**90**	**32**	**47**	**88**

*Dual-enrollment

Current results improved:
[ ] Yes [ ] No [ ] Partially [x] N/A First time we assess this topic.

Strengths by Criterion/ Question/Topic:
Questions 9, 10, and 18 had the best scores due to the fact that they could be assessed by using good test taking skills and singling out other answers that are not the best (multiple choice). The questions are broad enough that even without reviewing the textbook they can be answered.

Weaknesses by Criterion/ Question/Topic:
Questions 15 and 17 had the lowest scores. Question 15 is a question that requires the student to pick several right answers and there is more room for

Use of Results

Previous action(s) to improve CLO:
The SDV Curriculum Committee has a yearly mandatory SDV In-Service where we have instructors present on best practices on student engagement and learning (May 2016, May 2017, June 2018)

The Committee has also considered using a different textbook but our primary goal has been to keep the textbook affordable by using OER (Open Education Resources). We have considered that since the textbook is only available online that it discourages students from reading it. The committee reviewed textbooks in 2017-18 and we voted against the different options because they could not remain free. At this time we have not found a better free textbook that covers the topic we review in this class.

Most of the assignments required self-assessment and reflection and students feel more comfortable with those assignments than assessments and quizzes that required them to review the textbook available online.

NOVA Online, formerly ELI differed on when/where they assessed the critical thinking questions. It was not in the first quiz/assessment and not attached to a college resource quiz but it was its own separate quiz. This allows discussion that putting a critical thinking reading assignment/

	step by step handouts with pictures are included and the Co-Chairs information is included for instructors to receive help. This year Associate Deans were provided a list of the instructors who did not submit data by the end of the semester twice. Woodbridge lost some data from a class whose instructor's data had differently worded questions. Instructors are reminded to not change the curriculum at the In-Service and via monthly e-mail reminders. [3] This is the first time that the MEC Campus SDV 101: Orientation to Healthcare is included in the assessment data. A Counselor at the MEC Campus ensured that all the all-campus courses had the same quiz with the questions assessed. Collection of data was difficult with instructors not responding to requests nor following through with their Dean of Student's stern deadlines to submit their data. Another Counselor was able to access a few section's data by requesting the Blackboard administrator access. Major improvement on data overall is due to the support and insistence of Associate Deans of Student Development on each campus.	error. Question 17 had the highest wrong answers because it is not worded directly from the text but it is inferred from the reading material and requires a bit more critical thinking to figure out the best answer.	assessment as its category later on in the class may improve the results. **Target Met:** [ ] Yes [ ] No [x] Partially **Based on recent results, areas needing improvement:** The Critical Thinking CLO is currently located along with College Resources and Communication Skills. Comparing with NOVA online on where they put their assessment, students may do best if Critical Thinking has its own category after Academic and Test-Taking skills. **Current actions to improve CLO based on the results:** Unfortunately Fall 2018 assessment is well underway and too late to make any improvements or changes. Critical Thinking is not going to be assessed for Spring 2019. Comparing Spring 2018 to Fall 2018 would allow for more results to see if there is improvement or if the data stays the same. **Next assessment of CT:** Spring 2020

PATHWAY TO THE AMERICAN DREAM—NOVA'S STRATEGIC PLAN 2017-2023

THE NOVA COMMITMENT

As its primary contributions to meeting the needs of the Commonwealth of Virginia, the Northern Virginia Community College pledges to advance the social and economic mobility of its students while producing an educated citizenry for the 21st Century.

THE STRATEGIC PLAN GOALS AND OBJECTIVES

To deliver on this commitment NOVA will focus its creativity and talent, its effort and energy, and its resources and persistence, on achieving three overarching goals—success, achievement, and prosperity. It will strive to enable **Every Student to Succeed, Every Program to Achieve, and Every Community to Prosper.**

To advance the completion agenda described above, thereby promoting students' success and enhancing their social mobility, ensuring that programs achieve, and producing an educated citizenry for the 21st Century, the following goals and objectives are adopted:

GOAL 1: Every Student Succeeds

- **Objective 1:** Develop a College-wide approach to advising that ensures all students are advised and have access to support throughout their time at NOVA
- **Objective 2:** Implement VIP-PASS System as the foundational technology based on NOVA Informed Pathways for student self-advising, assignment and coordination of advisors, and course registration

GOAL 2: Every Program Achieves

- **Objective 3:** Develop comprehensive, fully integrated Informed Pathways for every program to ensure seamless transitions from high school and other entry points to NOVA, and from NOVA to four-year transfer institutions or the workforce
- **Objective 4:** Develop effective processes and protocols for programmatic College-wide collective decisions that include consistent, accountable leadership and oversight of each academic program with designated "owners," active advisory committees, clear student learning outcomes and assessments, and program reviews in all modalities of instruction
- **Objective 5:** Align NOVA's organizational structures, position descriptions, and expectations for accountability with its overarching mission to support student engagement, learning, success and institutional effectiveness

GOAL 3: Every Community Prospers

- **Objective 6:** Enhance the prosperity of every community in Northern Virginia by refocusing and prioritizing NOVA's workforce development efforts
- **Objective 7:** Further develop NOVA's IT and Cybersecurity programs to support regional job demand and position NOVA as the leading IT community college in the nation
- **Objective 8:** Re-envision workforce strategies and integrate workforce development into a NOVA core focus
- **Objective 9:** Plan to expand the breadth and reach of NOVA's healthcare and biotechnologyprograms, and prioritize future programs to support regional economic development goals

NOVA

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Community College

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