



EASTERN WEST VIRGINIA COMMUNITY AND TECHNICAL COLLEGE

DISCOVER YOUR POTENTIAL

Program Review

Program Name: Associates in Science

Degree or Certificate: Degree

Chair/Director: D. Phillips

Submitted by: D. Phillips

Date Submitted: 3/18/22

Approved by LOT 4/6/22

Approved by President's Cabinet 4/12/22

Approved by Board of Governors 4/20/22

Section I: Overview of Program

A. Program description:

The Associate in Science (A.S.) degree program was designed for students whose educational expectation is to transfer to a baccalaureate institution. An A.S. degree requires 60 credit hours consisting of a comprehensive general education core, concentration electives, and general electives. The A.S. degree is designed to assure competency in the general education core while providing flexibility for customization to meet the student's education goals and the requirements of the receiving institution. To allow adaptability to a variety of baccalaureate programs, students work with an advisor to align their selected electives to the specific baccalaureate institution's general education requirements. Additionally, first-time students who may be undecided about a technical major can select from natural sciences, mathematics, and technology to broaden their knowledge and interests in a wide-variety of disciplines.

B. List the Program Learning Outcomes:

1. Apply basic principles of biological and physical sciences and mathematics in junior and senior level courses required for majors related to sciences and mathematics
2. Use mathematic and scientific principles in problem-solving
3. Conduct basic research, and evaluate electronic and traditional sources
4. Apply the scientific method in designing, conducting, and analyzing experiments
5. Communicate effectively and work collaboratively
6. Examine issues from a global perspective

C. Explain how this program has contributed to the institution's mission and vision:

The Associate in Science (A.S.) degree program was designed for students whose educational expectations are to transfer to a baccalaureate institution. An A.S. degree requires 60 credit hours consisting of a comprehensive general education core, concentration electives, and general electives. The A.S. degree is designed to assure competency in the general education core while providing flexibility for customization to meet the student's educational goals and the requirements of the receiving institution. To allow adaptability to a variety of baccalaureate programs, students work with an advisor to align their selected electives to the specific four-year institution's general education requirements.

This aligns with the following Mission statements:

To achieve this mission, Eastern West Virginia Community and Technical College:

- provides programs and courses of instruction, through the associate-degree level, that encompass occupational-technical education, transfer education, general education, literacy and developmental education, and continuing education;
- serves as a vital link between secondary education and four-year colleges and universities; provides appropriate postsecondary courses to students in partner secondary schools;

- provides a broad range of instructional technologies, methods, materials, facilities, and instructional support services that promote learning;
- maintains an educational environment that broadens perspectives, promotes global awareness, and leads to responsible citizenship;

D. What strategic planning goal(s) of the college does this program contribute to?

The College's draft Strategic Plan was shared on 2/18/22.

As it can be assumed that every course and program have the capacity to positively impact all categories of retention by being well-organized, well resourced, accurately assessed, and user friendly, in other words, promote active, accessible opportunities for engagement and success, the A.S. program can expect to contribute to Goal 2: Increase Student Retention and Success:

[2.2] Increase fall-to-fall retention for first-time, full-time degree-seeking undergraduate students.

[2.3] Increase the fall-to-fall retention rate of first-time, part-time degree-seeking undergraduate students.

[2.4] Increase the percentage of first-time, full-time degree-seeking undergraduate students graduating.

[2.5] Increase the number of full-time, degree-seeking students.

[2.6] Increase Eastern student satisfaction and engagement.

[2.7] Reduce the percentage of all degree-seeking students who receive an academic notification.

[2.9] Increase the pass rates of select DFW gateway courses.

2.12] Develop career programs and career-related enhancements for existing programs.

In addition, all programs will also contribute to Goal 3: Build Academic Quality:

[3.1] Implement system-wide embedded faculty development that broadens faculty expertise in teaching and learning in multiple environments.

[3.2] Perform systematic reviews of all program curricula to ensure optimal and up-to-date course curriculum alignments and course content.

[3.3] Review all programs and courses to determine the feasibility of implementing Open Educational Resources (OERs) program-wide to help reduce the cost of student textbooks.

[3.4] Create a mentorship program for new faculty.

[3.6] Ensure faculty and programs have up-to-date technology for teaching and learning.

Finally, all programs will also contribute to Goal 5: Enhance Institutional Effectiveness:

[5.1] Develop an institutional assessment plan.

[5.2] Establish college-wide KPIs with targeted benchmarks.

[5.4] Update and revise all existing planning documents.

[5.5] Develop an academic master plan.

E. Please describe any unique components of the program that meet the needs of Eastern's district.

According to the West Virginia Higher Education Policy Commission, "In order to meet the state's employers and to facilitate continued education growth, it is estimated that nearly two-thirds of working-age adults will need to hold a high-quality, postsecondary credential. To meet this demand, West Virginia has embarked on an outreach campaign called 'West Virginia Climb,' with the goal of increasing the state's educational attainment rate to 60% by the year 2030." Currently, in Eastern's six-county region, the average attainment rate stands at 23.8%, significantly lower than the state average of 43%.

Eastern's A.S. program is the fifth highest enrolled program at Eastern and is a major cornerstone in helping to attain a postsecondary credential in the service region. On March 4, 2022, the College received confirmation from the Higher Learning Commission (HLC) that they approved Eastern's request to offer more distance education courses and programs. Beginning in fall 2022, Eastern will start offering the A.S. program completely online, allowing students with previous barriers to attending face-to-face courses an opportunity to take classes from home while balancing work and life obligations. HLC's approval of more online courses and programs should help Eastern increase postsecondary credentials throughout the area, thus helping to meet the West Virginia Climb initiative.

F. Please provide any other information that explains how this program contributes to the college community and supports external partners or workforce needs.

The A.S. program is a major stepping stone in the region for students wishing to complete their degree at a four-year institution. Several jobs in Eastern's region require employees to have a four-year degree, and Eastern provides an affordable and accessible way for students to attain a bachelor's degree.

Section II: Summary Update Since Last Program Review

A. Identification of weaknesses or deficiencies from the previous review.

The following weaknesses were identified in the previous review:

1. Limited online offerings
2. Lack of data-driven planning
3. Low rate of Course Assessment Report completion
4. Course offerings are still limited by the availability of qualified adjunct faculty and sufficient enrollment to provide multiple electives each semester.

B. Status of improvements implemented or accomplished.

1. Limited online offerings

In addition to the online opportunities listed above, Eastern has expanded its own online offerings with the HLC's approval of more online courses and programs on March 4, 2022; the College can now add further programs online and is currently working towards that end. Four programs will be offered completely online beginning in fall 2022: Accounting, Business Management, A.A., and A.S.

The focus on online learning intensified considerably due to the pandemic, which forced all courses online for several months. This has led to a growth in the number of courses being offered online: before the pandemic, online courses accounted for some 40% of the schedule, a figure closer to 65% at the time of writing.

Further progress will be made in this area in accordance with Strategic Plan Goal 3: Build Academic Quality: *[3.1] Implement system-wide embedded faculty development that broadens faculty expertise in teaching and learning in multiple environments; and [3.6] Ensure faculty and programs have up-to-date technology for teaching and learning.*

2. Lack of data-driven planning

Progress has been made regarding the quality of data production with creating a raft of Argos dashboards and the focus on feedback loop closure at the course assessment level.

This progress will be further embedded and extended in accordance with Strategic Plan Goal 3: Build Academic Quality: *[3.2] Perform systematic reviews of all program curricula to ensure optimal and up-to-date course curriculum alignments and course content.* and Goal 5: Enhance Institutional Effectiveness: *[5.1] Develop an institutional assessment plan; [5.2] Establish college-wide KPIs with targeted benchmarks; [5.4] Update and revise all existing planning documents; and [5.5] Develop an academic master plan.*

3. Low rate of Course Assessment Report completion.

19 Course Assessment reports were submitted for general education courses between Fall 2017 and Spring 2021. This represents a considerable drop since the last review, when 35 reports were submitted in the reporting period. The 19 reports were divided between 15 different courses.

Of these 19 reports, 6 assessed the core courses: CIS 114, ENL 101, and ENL 102. Each of these courses was evaluated twice in the review period in accordance with the Course Assessment Review Cycle.

No reports were submitted for the fourth core course, SPH 101.

13 reports assessed elective courses: ART 100, BIO 101, GSC 109, GSC 110, MTH 121, MTH 135, MTH 200, MTH 225, PSY 200, PSY 214.

Of these electives, only PSY 200 was assessed twice and was the only one capable of demonstrating progress made.

This issue is further addressed in Section III below and by Goal [3.2] *Perform systematic reviews of all program curricula to ensure optimal and up-to-date course curriculum alignments and course content* in the Strategic Plan.

4. Course offerings are still limited by the availability of qualified adjunct faculty and sufficient enrollment to provide multiple electives each semester

Finding suitably qualified and experienced adjunct faculty remains a challenge, as does the absence of full-time math and science faculty (although interviews for both positions are currently being conducted). Once a part of the institution, faculty stand to benefit from Goals [3.1] *Implement system-wide embedded faculty development that broadens faculty expertise in teaching and learning in multiple environments* and [3.4] *Create a mentorship program for new faculty*.

C. If program goals or program learning outcomes have changed, reflect that here.

None occurred in the previous review period. However, substantial changes are anticipated in accordance with Strategic Plan Goals [3.2] *Perform systematic reviews of all program curricula to ensure optimal and up-to-date course curriculum alignments and course content* and [3.3] *Review all programs and courses to determine the feasibility to implement Open Educational Resources (OERs) program-wide to help reduce the cost of student textbooks*

D. Provide a summary of any other curriculum changes or revisions since the last review. If there have not been any, put N/A below.

Section III: Student Learning Assessment

A. Describe and analyze your Program Learning Outcomes

- Provide evidence that students are achieving each program learning outcome, including results of annual program level assessment activities
- Analyze the curriculum's effectiveness in helping students achieve the program learning outcomes
- Describe the effectiveness of instructional methods and support in helping students achieve the program learning outcomes
- Are all of the PLOs appropriately covered and sequenced to promote student success? (Place a copy of your PLO Mapping in Appendix A)

The A.S. program learning outcomes are in need of review and revision. This process will be conducted over the next two years, in accordance with the Strategic Plan.

The amount of support that each outcome receives from courses is variable. Aligning the six program outcomes with course learning outcomes in Course Assessment Reports showed that:

- PLO1 was supported by 22 CLO's shared between 7 courses
- PLO 2 was supported by 14 CLO's shared between 5 courses
- PLO 3 was supported by 11 CLO's shared between 8 courses
- PLO 4 was supported by 3 CLO's shared between 3 courses
- PLO 5 was supported by 11 CLO's shared between 5 courses
- PLO 6 was not supported by any assessed CLO's

(See Appendix A for Aligned Outcome grids)

PLO 4: *Apply the scientific method in designing, conducting and analyzing experiments* received support only from science courses. Students must take two natural science courses as part of the degree: only Its continuation as a program outcome therefore requires review.

PLO 6: *Examine issues from a global perspective* was unsupported by any core course. This outcome's continuation should also be reviewed.

PLO 5: *Communicate effectively and work collaboratively* is only partially supported. Aligned course outcomes reflect "effective communication" but not "collaborative working."

The results of aligned outcomes are generally acceptable (see Appendix B for Alignment Results Grids), suggesting that, as far as coverage allows, aspects of most of the outcomes are being successfully supported by a mixture of core and elective courses.

This situation will be addressed in accordance with Strategic Plan Goals [3.2] *Perform systematic reviews of all program curricula to ensure optimal and up-to-date course curriculum alignments and course content* and [3.3] *Review all programs and courses to*

determine the feasibility to implement Open Educational Resources (OERs) program-wide to help reduce the cost of student textbooks as well as via Goals [5.1] Develop an institutional assessment plan and [5.5] Develop an academic master plan.

With regard to the effectiveness of instructional methods, see Section V. B below.

B. Provide a brief summary report of any specific student learning outcomes assessed and describe the purpose, plan, and results attributed to that assessment.

Program learning outcomes are assessed through Course Assessment Reports (see Appendices B and C).

As previously stated, the results of aligned outcomes are generally acceptable (see Appendix C for Alignment Results Grids), although results in math courses supporting outcome are disappointing. Hopefully, this will be addressed with the appointment of a new math faculty.

C. Provide a summary of course level assessments over the past five years and how they have contributed to program success and improvement.

The results of Course Assessment Reports comprise Appendices B and C.

Consecutive reports are needed to demonstrate progress. Only 4 courses were assessed twice in the review period: CIS 114, ENL 101, ENL 102, and PSY 200. Not all the outcomes in these reports aligned with the program's outcomes. Most of the program's 60+ elective courses were not assessed in the review period.

While there are documented examples of progress at course level driving progress at the program level (focusing on research skills and evaluating sources in ENL 101, ENL 102, and CIS 114, for instance), the paucity of assessment data makes demonstrating success or improvement very difficult.

As previously mentioned, these issues will be addressed in accordance with Strategic Plan Goals [3.2] *Perform systematic reviews of all program curricula to ensure optimal and up-to-date course curriculum alignments and course content* and [3.3] *Review all programs and courses to determine the feasibility to implement Open Educational Resources (OERs) program-wide to help reduce the cost of student textbooks.*

D. What specific institutional general education goals have you focused on in this periodic review cycle?

Give a brief explanation of those learning activities, data collected and analyzed, and any changes made to the program as a result (i.e., addition of curriculum, changes to existing curriculum, partnering with co-curricular activities).

Oral and Written Communication	<p>A pilot project to establish a rolling general education assessment cycle was launched in fall 2021. A selection of General Studies courses collected data on oral and written communication, measuring course artifacts against the College's elected rubrics.</p> <p>The first data sample comprised General Studies courses (ART 100; BIO 124; PSY 200; PSY 214); a second sample, gathered at the end of the spring 2022 semester, will be taken from the Business, Computer, and Information Technology Division. Together, the samples will produce aggregated scores for oral and written communication across the College and will provide a source of data on which to build improvement in these areas.</p>
Digital Literacy	<p>A new general education goal was introduced in fall 2020 to better reflect courses' engagement with informational technology.</p> <p>As a result of the creation of this new goal, ENL 101 and ENL 102 both amended their course outcomes to reflect their significant engagement with informational technology. It is anticipated that, in the coming review of course learning outcomes, ([3.2] <i>Perform systematic reviews of all program curricula to ensure optimal and up-to-date course curriculum alignments and course content</i>), further alignments will be made between courses and programs.</p>

Section IV: Utilizing Findings

Plans for program improvement:
<ol style="list-style-type: none"> 1. To review and revise Program Learning Outcomes (Strategic Plan: 3.3) 2. To review and revise Course Learning Outcomes (3.3) 3. To realign core courses with Program Outcomes (3.2) 4. To develop a refined course assessment report system which a) increases report completion rate and b) ensures that aligned outcomes are systematically assessed (5.1)

5. To engage all faculty (full-time and part-time) in How2's and make this a regular goal-setting feature. (3.1)
6. To hire science and math faculty.

Section V: Faculty and Staff Development

A. Discuss any significant staffing changes impacting the effectiveness of the program, including areas such as hiring, support, coordination for part-time faculty, etc.

As previously mentioned in Section II. B, the College has been advertising and interviewing for full-time faculty in science and math for some months now. Neither position has been permanently filled but, at the time of writing, a fresh round of interviews is taking place.

B. Share the program's measures of teaching effectiveness and what efforts to improve teaching effectiveness have been pursued. Discussion may include (but is not limited to):

- Teaching pedagogy
- Use of technology
- Innovative learning models
- Faculty development
- Curricular design and formats

Currently, teaching effectiveness is measured in the following ways:

Every faculty member undergoes an evaluation, part of which is submitting a portfolio of teaching artifacts. New faculty are observed in their first semester at the College.

Faculty are observed every two years, measured against a set of criteria that focus on the organization, presentation, and delivery of materials, student engagement and interaction, and the use of formative assessment to extend student learning. If the observation, or the larger evaluation, identifies areas for improvement, an action plan is devised between the faculty and observer to address these areas. Any goals set are reviewed the following semester.

Additionally, annually, faculty submit their Goals and Priorities to the Division Chair, the first section of which, Instructional and curriculum development, is mandatory.

Eastern received a Title III grant in 2021 focused on improving student retention, graduation rates, and expanding instruction innovation. Curriculum development, professional development, and augmentation of online courses will elevate Eastern's instructional innovation strategies. 36 general education courses with low pass rates will be redesigned and moved online to make college more accessible and positive outcomes more likely.

Finally, Course Assessment Reports and, now, Semester Course Assessment Reports are a data-driven opportunity to reflect on and plan to improve course delivery effectiveness.

With the onset of the pandemic and the greater dependence on online delivery, the College extended the observation process to include online classes, with faculty providing a portfolio of evidence to satisfy each of the same criteria used for in-person observations.

The necessity for greater online delivery has led to the establishment of an online course review: each semester, a selection of faculty has its online course reviewed by The Instructional Technology Specialist. The review process mirrors that of Quality Matters, and the same standards are applied. These reviews are shared with Division Chairs. In each evaluation or review, feedback is shared with the faculty member, and strategies for improvement are discussed, if necessary.

The Instructional Technology Specialist also has a regular agenda item in monthly Faculty Assembly meetings in which a Tech Tip (how to embed audio in PowerPoint files; the utilization of Snagit and Camtasia to create screen capture videos; how to use the LMS Medial service to host and caption video content in courses) is shared. Both these initiatives already address goal [3.6] *Ensure faculty and programs have up-to-date technology for teaching and learning.*

The College now has access to ‘How2s’, a database of flexible, cross-discipline pedagogical techniques. Access to this will be rolled out across the College in accordance with Goal [3.1] *Implement system-wide embedded faculty development that broadens faculty expertise in teaching and learning in multiple environments* and potentially [3.4] *Create a mentorship program for new faculty.*

C. Discuss the contributions of your program faculty. (This is an area to share an overview of the exceptional aspects of your program faculty).

Items to consider may include:

- Significant accomplishments
- Publications, grants
- Advanced degrees, promotion
- Service to students/institution/community and others

In the last five years, four full-time faculty who taught/teach General Studies courses included in the A.A. degree have received a promotion.

Other achievements by full-time and adjunct faculty members are:

- Published authors of children’s fiction
- Artwork featured in nationwide *Artist’s Magazine*
- Winner of the Milken Educator’s Award

Section VI: Key Performance Indicators (KPIs)

A. Program enrollment data

	2021-2022	2020-2021	2019-2020	2018-2019	2017-2018
Headcount	27	21	23	37	25

Provide an analysis of the enrollment trends in your program. Include in that analysis actions you have taken, or plan to take, to address enrollment changes. You may also include what steps you would like to see the college take to support enrollments in your program.

Total enrollment numbers for this review period = 133

Total enrollment for previous review period = 148

Enrollment has decreased by 10%

Plans to improve enrollment will be developed in accordance with Strategic Plan Goal 1: Stabilize and Increase Enrollment.

B. Program graduation history

	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
Graduates	2	8	2	5	6

Provide an analysis of the graduation rates since your last program review. Include in that analysis actions the program has taken, or plans to take, to address any success rate challenges. You may also include what steps you would like to see the college take to support success rates in your program.

Total graduate numbers for this review period = 23

Total graduate numbers for previous review period = 32

The number of graduates has decreased by 28%

Plans to improve the success rate will be developed in accordance with Strategic Plan Goal 2: Increase Student Retention and Success.

C. Program demand – *Provide the number of students enrolled, number of graduates, and credit hour production over the past five years (include summer, fall, and spring enrollment numbers)*

The number of students enrolled and the number of graduates comprise sections A and B above.

D. If applicable, provide an analysis of early entrance courses offered in your program. Discuss challenges associated with delivering early entrance college classes and strategies you have employed to address those challenges. You may also include what steps you would like to see the college take to support the delivery of early entrance courses and student success in this area.

Early Entrance students generally take the A.A. degree.

E. Does this program lead to a licensure or certification? If yes, then include students' pass rates on licensure/certification exams.

	20__	20__	20__	20__	20__
Name of exam:					
Pass rate:					

F. Transfer data for program graduates

	20__	20__	20__	20__	20__
Number of graduating students who transferred to a four-year institution					
Percentage of graduating students who transferred to a four-year institution					

Eastern currently does not collect data in this format.

However, Graduate Surveys showed that in Fall 2021, 29.41% of responders identified "Transfer credits earned at Eastern to a 4-year college" as their primary reason for attending Eastern. This figure was 17.5% in Fall 2018 and 26.6% in Fall 2019 suggesting that students are increasingly seeing Eastern' A.S. as an attractive proposition for transferring credit.

G. Job placement data

	20__	20__	20__	20__	20__
Number of graduating students who sought employment					
Percentage of graduating students who sought employment					

Number of graduating students who gained employment					
Percentage of graduating students who gained employment					

Eastern currently does not collect data in this format. Results from Graduates' Surveys can be summarized as follows:

80-83% said that were employed at the time of the survey

- 40-50% said that their job was related to their education at Eastern
- 35- 53% were employed in their current position before attending Eastern
- 47-61% were employed for more than 37 hours a week.

Results grids comprise Appendix D.

It should be noted that Graduate Survey responders come from all degrees, not specifically AS. Increasing information on graduate employment will be addressed by the Strategic Plan Goal 2: Increase Student Retention and Success.

Section VII: Program Sustainability

A. Provide a summative analysis of the overall health and the current state of the program.
Possible discussion points may be (but are not limited to): trends impacting the program, degree transferability, local and national demand for program graduates, student recruitment, and availability of qualified faculty to teach. You may include in your analysis what steps you would like to see the college take to address program viability challenges associated with your program.
As the vehicle for transferring credit it was designed to be, the program performs consistently. While improvements to the quality of teaching and learning have been made at the course level, the misaligned nature of outcomes make consistent, informed progress difficult. The most immediate needs are to review, revise and align course and program outcomes, to develop systemic assessment and improvement strategies, and to develop the teaching knowledge, experience, and ability of all faculty.
B. Identify specific program resource needs that can help with the overall effectiveness and sustainability of the program. Areas might include (but are not limited to):
<ul style="list-style-type: none"> ➤ Required technology/equipment/facility space ➤ Marketing/recruitment/professional development ➤ Staffing levels, etc.

If possible, provide cost estimates or quotes related to any of the above resource needs. Indicate if budget requests have been made since the last program review and if those requests are still unmet.

As mentioned previously, replacing full-time math and science faculty is ongoing.

C. Provide a final reflection of the program summarizing its role in fulfilling the mission of the college and student learning success.

- **Indicate the goals and actions the program intends to take in this next cycle.**
- **Prioritize in rank order the most pressing needs facing the program and include how the college can assist in supporting these needs.**

1. To review and revise Program Learning Outcomes (Strategic Plan: 3.3)
2. To review and revise Course Learning Outcomes (3.3)
3. To realign core courses with Program Outcomes (3.2)
4. To develop a refined course assessment report system which a) increases report completion rate and b) ensures that aligned course and program outcomes are systematically assessed (5.1)
5. To engage all faculty (full-time and part-time) in How2's and make this a regular feature of goal setting. (3.1)
6. Appoint math and science faculty

The results of the five-year program reviews conducted each year should be submitted to WVHEPC by May 31. Request to submit reports at a later date should be filed with the Academic Affairs office.

Date Submitted: 3/18/22
Approved by Assessment Committee: 4/6/22
Approved by LOT:
Approved by Cabinet:
Approved by Board of Governors:

Final recommendations approved by the governing board:

Institutional Recommendations: (Check the appropriate box)

- ☐ Continue without Modifications
- ☐ Continue with Modifications – *Identify suggested or required modifications.
- ☐ Cease the Co-Curricular Activity - *Identify reasons for this recommendation below
- ☐ Move the Educational Program to the Reduction in Force process *Identify reasons for this recommendation below and identify what should be included in teach-out plan.

*As required above, please identify rationale:

Appendix A – PLO Mapping:

Associate in Science AAS		Core Courses				Elective Courses											
		CIS	ENL	ENL	SPH	MTH	MTH	MTH	MTH	GSC	GSC	BIO	ART	ENL	PSY	PSY	PSY
Program Outcomes (General Education in green)		114	101	102	101	121	135	200	225	109	110	101	100	202	200	214	228
CRIT	Demonstrate the ability to think critically by observing critically, reading critically, planning, reflecting, analyzing, evaluating and synthesizing by using multiple modalities of inquiry to collect information including organizing, evaluating, analyzing, and interpreting findings.		1	1		1							4	2	4	7	
COMM	Communicate with precision, clarity, fluency, accuracy, and coherence through their reading, writing, and verbal communications.		1-4	1-4	2,3,4,5					1	1	1	9	4,9			
MATH	Demonstrate their abilities to think mathematically by applying mathematical concepts in problem-solving including estimation, computation, analysis, assimilation, application, transference and modeling strategies as appropriate workforce skills and lifelong learning.					2-7	1-9	1-9	1-7	2	2	2					
WFOCT	Demonstrate workforce and citizenship skills needed for professional ethical reasoning, diversity awareness, civic engagement, and steadfast participation in lifelong learning activities.		1e							3	3	3			6	7	
TECH	Demonstrate the ability to use relevant technology tools and software for information design, data visualization, creative expression, research, record keeping, communication, completing projects, solving problems, and making informed decisions.	6-9	1e,2a	1d,2c,2e,2i					7	4	4	11		5			
1	Apply basic principles of biological and physical sciences and mathematics in junior and senior level courses required for majors related to science and mathematics					1-7	1-9	1-5, 7,9	1-7	1-10	1-10	1-11					
2	Use mathematic and scientific principles in problem-solving					1-7	1-9	7, 9	3	1,2	1,2,3						
3	Conduct basic research and evaluate electronic and traditional sources	3	1e, 2a	2b,2c,2e	3					4	4	11		5	2,3	5, 7	
4	Apply the scientific method in designing, conducting, and analyzing experiments									1	1	1					
5	Communicate effectively, and work collaboratively		1-4	1-4, 1b	4					1	1	1		4,9			
6	Examine issues from a global perspective																

Appendix B – Alignment of Assessed Outcomes

Program Learning Outcome 1		
<i>Apply basic principles of biological and physical sciences and mathematics in junior level courses required for majors related to science and mathematics</i>		
Assessed Courses	Aligned Course Outcomes Assessed	% Success of combined Aligned Outcomes
MTH 121	2, 5, 6, 7	54.2
MTH 135	1, 2, 4, 8	46.5
MTH 200	4, 5, 7, 8	62.8
MTH 225	2	81.0
GSC 109	1,2,4	78.8
GSC 110	1,2,4	79.5
BIO 101	1,2,11	82.1

Program Learning Outcome 2	
<i>Use mathematical and scientific principles in problem-solving</i>	

Assessed Courses	Aligned Course Outcomes	% Success of combined Aligned Outcomes
MTH 121	2,5,6,7	54.2
MTH 135	1,2,4,8	46.5
MTH 200	7	58.0
GSC 109	1,2	79.4
GSC 110	1,2,3	80.5

Program Learning Outcome 3		
<i>Conduct basic research and evaluate electronic and traditional resources</i>		
Assessed Courses	Aligned Course Outcomes	% Success of combined Aligned Outcomes
CIS 114	3	83.5
ENL 101	1	91
ENL 102	2b, 2c, 2e	79.1
GSC 109	4	77.8
GSC 110	4	85.3
BIO 101	11	80
PSY 200	2	88.8
PSY 214	5,7	83.9

Program Learning Outcome 4		
<i>Apply the scientific method in designing, conducting, and analyzing experiments</i>		
Assessed Courses	Aligned Course Outcomes	% Success of combined Aligned Outcomes
GSC 109	1	73.3
GSC 110	1	76.6
BIO 101	1	87.5

Program Learning Outcome 5

<i>Communicate effectively, and work collaboratively</i>		
Assessed Courses	Aligned Course Outcomes	% Success of combined Aligned Outcomes
ENL 101	1-4	88.2
ENL 102	1-4	78.6
GSC 109	1	73.3
GSC 110	1	76.6
BIO 101	1	87.5

Program Learning Outcome 6		
<i>Examine issues from a global perspective</i>		
Assessed Courses	Aligned Course Outcomes	% Success of combined Aligned Outcomes
No alignment		

Appendix C – Performance of Course Outcomes

ENL 101					
Semester	Aligned Outcomes Assessed			Unaligned Outcomes Assessed	
	PLO	CLO	%	CLO	%
F 17	5	1	92		
	5	2	89.7		
	5	3	89.7		
	5	4	88.5		
	Average:		89.9		
F 19	5	1	90		
	5	2	87		
	5	3	87.4		
	5	4	85.5		
	Average:		86.5		
Course Average			88.2		

ENL 102					
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Semester	Aligned Outcomes Assessed			Unaligned Outcomes Assessed	
	PLO	CLO	%	CLO	%
S 18	3	2c	64.4	1e	81
	3	2e	75	3b	75
	Average:		69.7	Average:	78
S 20	2	1d	86	3b	86
	3	2c	89		
	3	2e	88		
	Average:		87.6	Average:	86
Course Average			78.6		

CIS 114					
Semester	Aligned Outcomes Assessed			Unaligned Outcomes Assessed	
	PLO	CLO	%	CLO	%
F 17	3	3	*	1	*
				2	*
				4	*
				5	86.6
				6	87.5
				7	93.3
				8	74.8
	Average:			Average:	85.5
F 19	3	3	83.5	1	90.7
				2	87.4
				4	89.9
				5	88.0
				6	93.7
				7	95.4
				8	92.3
				9	72.9
	Average:		83.5	Average:	88.8
Course Average			83.5		

* "No submissions were found"

Elective Courses - Math						
Semester	Course	Aligned Outcomes Assessed			Unaligned Outcomes Assessed	
		PLO	CLO	%	CLO	%
F 17	MTH 225	1	2	81		

			4	66		
			5	70		
			6	83		
S 18	MTH 200	2	7	58	8	83
			4	48		
			5	62		
S 19	MTH 121	1,2	2	65		
			5	23		
			6	45		
			7	84		
	MTH 135	1,2	1	53		
			2	20		
			4	53		
			8	60		

Elective Courses - Natural Sciences						
Semester	Course	Aligned Outcomes Assessed			Unaligned Outcomes Assessed	
		PLO	CLO	%	CLO	%
F 18	GSC 109	1-5	1	73.3		
			2	85.5		
			3	90		
			4	77.8		
			5	83.6		
			6	89.7		
			7	83.7		
			8	82.6		
			9	54.3		
			10	73.3		
S 19	GSC 110	1-5	1	76.6		
			2	75		
			3	89.7		
			4	85.3		
			5	76.7		
			6	77.9		
			7	87.5		
			8	81.7		
			9	88		
F19	BIO 101	1,3,4,5	1	87.5		
			2	78.3		
			3	78.3		

			4	81.7		
			5	86.1		
			6	87		
			7	77.7		
			8	82.9		
			9	78.3		
			10	81.3		
			11	80		

Elective Courses - Psychology						
Semester	Course	Aligned Outcomes Assessed			Unaligned Outcomes Assessed	
		PLO	CLO	%	CLO	%
S 19	PSY 200	3	2	85	1	86
			3	92	4	77
S 20	PSY 228				6	66.7
					8	83.3
					9	83.3
F 20	PSY 214	3	5	85.6	1	83.1
			7	82.2	2	85.4
					3	82.5
					5	85.6
					6	82.3
S 21	PSY 200	3	2	92.5	1	92.5
			3	91.1	4	92.8
					5	92.3
					6	92.4

Elective Courses - Humanities						
Semester	Course	Aligned Outcomes Assessed			Unaligned Outcomes Assessed	
		PLO	CLO	%	CLO	%
F 19	ART 100		1	93.4		
			2	92.3		
			3	92.3		
			4	95.2		
			5	93.4		
			6	91.9		
			7	88.9		
			8	89.9		

			9	86.4		
S 20	ENL 202	5	4	92	1	100
					2	79
					3	92

Appendix D – Graduate Surveys

Fall 2018	% Responding			
	Yes	No	N/A	
Q16 Are you currently employed?	82.35	17.65		
Q17 Is your current job related to your education at Eastern?	41.18	41.18	17.65	
Q18 Were you employed in your current position PRIOR to enrolling at Eastern?	35.29	47.06	17.65	
Q19 How many hours per week are you employed?	37-40+	31-26	21-30	N/A
	47.06	23.53	11.76	17.65

Fall 2019	% Responding			
	Yes	No	N/A	
Q16 Are you currently employed?	80	20		
Q17 Is your current job related to your education at Eastern?	40	46.67	13.33	
Q18 Were you employed in your current position PRIOR to enrolling at Eastern?	53.33	33.33	13.33	
Q19 How many hours per week are you employed?	37-40+	31-36	21-30	N/A
	53.33	6.67	6.67	20

Fall 2021	% Responding		
	Yes	No	N/A
Q16 Are you currently employed?	83.33	16.67	

Q17 Is your current job related to your education at Eastern?	50	38.89	11.11	
Q18 Were you employed in your current position PRIOR to enrolling at Eastern?	50	44.44	5.56	
Q19 How many hours per week are you employed?	37-40+	31-36	21-30	N/A
	61.11	5.56	11.11	16.67