



EASTERN WEST VIRGINIA COMMUNITY AND TECHNICAL COLLEGE

DISCOVER YOUR POTENTIAL

Program Review

Program Name: Information Technology

Degree or Certificate: Certificate in Applied Science

Chair/Director: Seyed Mirkhani

Submitted by: Seyed Mirkhani

Date Submitted: 3/25/2022

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 Information Technology Certificate in Applied Science was developed in 2009 to serve the needs of employers in Eastern's College district, and was created by incorporating existing courses from general education, Information Technology and Computer Information Systems. This certificate provides an opportunity for students interested in basic Information Technology (IT) fields to improve their computer skills and prepare themselves for IT related jobs. Students with little or no experience in information technology will acquire skills and knowledge that will make them valuable to many employers.

B. List the Program Learning Outcomes:

1. Design an interactive website
2. Perform routine maintenance and repairs on PC's hardware
3. Demonstrate effective communication and computation skills
4. Demonstrate a basic knowledge of business organization and procedures
5. Demonstrate a basic knowledge regarding Information Technology
6. Design and manage a database
7. Demonstrate mathematical skills
8. Demonstrate knowledge of computer application

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

The Certificate in Applied Science in Information Technology (IT) addresses the labor needs of various types of organizations. These organizations include accounting firms, financial institutions, federal and state operations, manufacturers, health-related establishments, utilities, high tech companies, and other services organizations. Graduates of the program are better prepared employees with the ability to perform the duties of IT professionals in Eastern's district to meet the technology needs of employers.

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

The purpose of the Program is to provide students with skills necessary to meet the business needs of district employers. Eastern's district is a region in transition experiencing growth in business and industry. The region is home to numerous small and midsize businesses, many of which are expanding. Additionally, new companies are looking to relocate to the region. Considering the growth dynamics of the six counties in the Eastern district, there is a demand for graduates with Information Technology (IT) skills. This Program is designed to respond to the increasing needs of these employers by:

- Emphasizing professional skills training

- Meeting current and projected regional employment needs of businesses
- Increasing access to higher education throughout the college's responsibility district
- Providing adult learners with academically rigorous administrative support appropriate courses
- Providing program flexibility to meet a variety of job placement options.

The college has four Strategic Plan criterias for Stabilizing and Increasing Enrollment, Increasing Student Retention & Success, Building Academic Quality, and Increasing Number and Type of Strategic Partnerships. This program is contributing to the strategic plans of the college by:

- Re-evaluating recruitment strategies for effectiveness
- Promoting the Program through alumni
- Comparing program and course outcomes to ensure all outcomes are covered and aligned
- Re-evaluating curriculum to ensure program outcomes are met
- Meeting with high school Business Technologies teachers and students regularly
- Applying Quality Matters criteria to the program courses
- Requiring, implementing, and monitoring regular and substantive interaction between students and instructors in all online courses as required by the U.S. Department of Education

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

This certificate is customized to serve the needs of small and mid-size organizations in Eastern's district including medical, financial, educational, agricultural, and industrial companies. Students in this program complete a general education core in communication, computer literacy, and math. Additionally, the degree includes a technical core of courses in PC Repair and Troubleshooting, Web Design, Cyber Security, Computer Applications and Business Management. Students can further focus their study by selecting from a wide range of IT electives such as Systems Analysis and Design, Project Management, Ethical Hacking, and other customized courses to better meet the needs of Eastern's district.

From 2009 to 2011, the college built on the strength of its Business Management program to create several related AAS programs and certificates including the IT CAS. All of these programs require the same General Education courses. This commonality has improved the efficiency, quality, and availability of the common courses in the areas of both general education and IT. This commonality between programs also encouraged some IT students to take additional courses to graduate with a second certificate in Business Management.

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

From fall 2012 to spring 2016, ten students graduated with a certificate in IT. During this review period, six students were enrolled in the certificate program. Over eleven graduates of the certificate are employed by a wide range of employers which include, medical, financial, educational, agricultural and industrial organizations. Of the six graduates during this review period, four are employed in numerous diverse businesses and organizations. Locally, this program addresses an unmet labor need of a variety of local businesses and organizations including food processing, healthcare, banking, educational institutions, small businesses, and other service organizations.

Section II: Summary Update Since Last Program Review

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

From the previous review:

Challenges:

The IT program does not have full-time faculty: it utilizes adjunct faculty for core and elective courses. While relying on part-time faculty creates a challenge, it eliminates the high cost associated with hiring full-time faculty, thus making the IT program a low-cost program that generates an annual net income of \$5,000.

Opportunities

To better serve the needs of Eastern's six-county district, it is recommended to continue offering the program in its current format with full-time day course implementation, increase the number of 2+2 articulation agreements, and explore feasibility of offering the IT program as a web-based program. Additionally:

- Promote industry certification
- Revise curriculum by adding a cyber-security course to the list of core courses
- Apply Quality Matters standards to online and hybrid courses
- Utilize technology to better assess courses and programs
- Revise curriculum by replacing one of the CIS courses with an IT course

B. Status of improvements implemented or accomplished.

- **Increase the number of 2+2 articulation agreements:** The college increased the number of 2+2 agreements with other institutions. This includes 2+2 agreements with Frostburg State University and Franklin University.

- **Explore feasibility of offering the program as a web-based program:** Three of the Business Technology programs were approved by the HLC to be offered fully online.
- **Promote industry certification:** Students are regularly advised to take the industry exams. Several students took and passed the A+, MTA and MOS exams.
- **Apply Quality Matters (QM) standards to online and hybrid courses:** Several courses were reviewed based on Quality Matters standards. A template was created based on QM standards and was used in some of the accounting courses that were offered online
- **Utilize technology to better assess course and program outcomes:** Blackboard was used for the assessment of IT courses. The assignments, projects, and exams were linked to the course outcomes through Blackboard. Blackboard generated reports were included in the assessment of the courses.

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

N/A

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.

Three courses in cyber security were developed. IT students can take these courses as their restricted electives.

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)

All Program Learning Outcomes (PLOs) are mapped to courses. Program learning outcomes remain unchanged since the last review period. The program-level outcomes are analyzed based on the performance of students in NOCTI's national test as well as the performance of students in program courses, which is measured by course assessment. Two of the program-level outcomes are aligned with two of the NOCTI outcomes. See Appendix A and section B

below.

Students are provided a variety of learning materials which include lectures, videos, discussion topics, hands-on practices, and exercises. Students are given a variety of tasks and homework assignments to ensure they have learned the program outcomes. The college offers core courses and restricted electives to achieve program outcomes. Courseware coupled with significant learning materials is used in all program courses to enhance students' performance.

Based on the performance of the students' in NOCTI's national test results, Eastern students (N=4) taking the test, outperformed the national average (N=38) by 19.33% points.

NOCTI Standard Description	Eastern Score (N = 4)	Nation Standard Score (N = 38)	Outperformed Underperformed National Average
Information Technology Applications Aligned with PLO #5	71.1	57.4	23.87%
Academic Foundations	68.2	54.1	26.06%
Systems Not Aligned	75.5	63.6	18.71%
Ethics and Legal Responsibilities Not Aligned	84.0	69.6	20.69%
Communications	66.5	57.7	15.25%
Problem Solving, Critical Thinking, and Decision Making	69.8	59.2	17.91%
Leadership and Teamwork Not Aligned	87.5	72.6	20.52%
Safety, Health, and Environmental Not Aligned	75.0	63.7	17.74%
Employability and Career Development Not Aligned	68.0	60.5	12.40%
Information Support and Services Partially Aligned with PLO #4	74.4	61.9	20.19%
AVG	74.0	62.0	19.33%

Comprehensive NOCTI's test report:

NOCTI STANDARD SCORE REPORT									
Written Norms Report Data > Post-Test									
Test Code	Test Title	Standard Description	Site Cum Test Count	Site Cum Standard Score	Site Cum Test Score	Nation Test Count	Nation Standard Score	Nation Test Score	Standard Deviation Standard
1131	Information Support	Information Technology Applications	16	71.1	73.3	38	57.4	61.2	20.3
1131	Information Support	Academic Foundations	16	68.2	73.3	38	54.1	61.2	23.1
1131	Information Support	Systems	16	75.5	73.3	38	63.6	61.2	19.6
1131	Information Support	Ethics and Legal Responsibilities	16	84.0	73.3	38	69.6	61.2	24.7
1131	Information Support	Communications	16	66.5	73.3	38	57.7	61.2	17.5
1131	Information Support	Problem Solving, Critical Thinking, and Decision Making	16	69.8	73.3	38	59.2	61.2	25.0
1131	Information Support	Leadership and Teamwork	16	87.5	73.3	38	72.6	61.2	27.3
1131	Information Support	Safety, Health, and Environmental	16	75.0	73.3	38	63.7	61.2	25.8
1131	Information Support	Employability and Career Development	16	68.0	73.3	38	60.5	61.2	23.6
1131	Information Support	Information Support and Services	16	74.4	73.3	38	61.9	61.2	21.1
<p>Since fall 2021, the College has offered tutoring services through Tutor.com to support struggling IT students. The College also procured the services of Cengage Unlimited; students are provided supplemental instructional and learning materials such as ancillary lecture series, videos, discussion topics, interactive projects and hands-on materials. These additional support materials are expected to help students achieve the program's learning outcomes not met in this review cycle.</p>									

<p>B. Provide a <u>brief</u> summary report of any specific student learning outcomes assessed and describe the purpose, plan, and results attributed to that assessment.</p>
<p>Two assessment methods and measures are used to assess program outcomes. These assessment methods include students' performance in courses that are aligned with program outcomes, and the performance of students on the NOCTI tests that are compared with the performance of students at the national level, which is reflected as the benchmark. Based on NOCTI's test results, students outperformed the national average by 19.33%. Outcomes one</p>

and ten of NOCTI's test are aligned with PLOs outcomes eight and four respectively. While NOCTI's outcomes one and ten are related to the IT field, outcomes two through nine relate to business management. This might have been a factor in students outperforming the national average with a significant margin. Additionally, only one hundred students have taken this test at the national level. Usually, for a national test to be a valid benchmark, it has to be taken by at least several hundred students to make sure that the numbers are not skewed.

According to the course assessment reports students underperformed the benchmark of 75% by an average of 18% in IT 228, IT 233, IT 110, and CIS 12; and outperformed the benchmark by 15% in CIS 119, BUS 101, CIS 114 and IT 181

According to Eastern generated course assessment reports for CIS 119, BUS 101, CIS 114 and IT 181, students outperformed the benchmark threshold of 75% by 15%. In CIS IT 228, IT 233, IT 110, and CIS 121, students underperformed the threshold achievement score of 75% by 18% indicating that greater emphasis should be placed on these courses. Please see Appendix B for more information.

To help students achieve program level outcomes:

- Students are provided a variety of learning materials which include lectures, videos, discussion topics, hands-on practices, and exercises. Students are given a variety of tasks and homework assignments to ensure they have learned the program outcomes. The College offers core courses and restricted electives to achieve program outcomes. Courseware coupled with significant learning materials is used in all program courses to enhance students' performance.
- In the past two years, faculty members have been trained to use Cengage teaching platforms such as MindTap, CNOW, Aplia, *OWL*, and SAM. These platforms are utilized across all Business Technologies courses to take advantage of virtualized labs and hands-on learning, and testing platforms to facilitate the use of additional interactive learning activities. Additionally, the college uses Testout course materials that provide simulation for four of the IT courses.

The IT courses and certificate are regularly evaluated by the faculty, Division Chair, and the Assessment Committee. Each semester several program specific courses are assessed and the results of the assessments are posted on Eastern's Website for faculty review. All AST students take the Internship as their final course. This course is usually taught jointly by the Division Chair and a business faculty member. Such joint teaching allows the Division Chair to assess the program while affording the faculty member an opportunity to evaluate weaknesses, deficiencies, and strengths of the program and courses.

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

Course-level assessments are mapped to program outcomes. Course assessments are used to assess program outcomes with a benchmark of 75%. Course level assessments use a variety of measures including students' performance on homework assignments, multiple-choice questions, video summaries, hands-on practices, and discussion questions. These assessment results are shared with the faculty teaching the courses for future reference. As a follow-up, the recommendations in the assessments are reviewed and evaluated the next time the course is offered.

From 2017 to 2021, eleven course assessment results show that students are achieving the course outcomes. On average, students outperformed the benchmark of 75% by 2%. The results of the course assessments are shared with the faculty teaching the courses. In the areas that require attention (when the benchmark of 75% is not achieved), corrective measures are taken to strengthen students' performance the next time the course is offered. Additionally, Students' evaluations of the courses and instructors also are taken into consideration for efficiency purposes.

Course Assessment Reports:

Year	Semester	Subject	Course #	# of Students	Course Average	Threshold	Outcome Performance +/-	% of Outcomes Assessed
2017	Spring	CIS	119	21	85%	75%	10%	100%
2018	Spring	IT	228	6	64%	75%	-11%	100%
2017	Fall	IT	233	12	42%	75%	-33%	11%
2020	Fall	BUS	101	19	91%	75%	16%	100%
2021	Fall	IT	110	3	73%	75%	-2%	100%
2021	Fall	IT	181	2	95%	75%	29%	36%
2021	Fall	IT	284	3	81%	75%	6%	100%
2017	Spring	CIS	119	21	85%	75%	10%	100%
2017	Fall	CIS	114	25	86%	75%	11%	100%
2019	Fall	CIS	114	27	89%	75%	14%	100%
2020	Spring	CIS	121	9	51%	75%	-24%	100%
AVG.							2%	

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

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>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 provide a source of data on which to improve 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>A rubric for the goal was produced; due to 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 other alignments will be made in reviewing course learning outcomes.</p>

Section IV: Utilizing Findings

Plans for program improvement:
<p>Based on previous and current program reviews, and based on NOCTI and course assessment results, the students would benefit by:</p> <ul style="list-style-type: none"> • Adding more emphasis on courses that didn't meet the outcomes • Improving the quality of online and hybrid courses by applying QM standards • Inviting industry guest speakers to engage with online and live classes • Providing informative videos to enhance students' learning • Promoting discussion activities among students <p>Since fall 2021, the College has offered Information Systems tutoring services through Tutor.com to support struggling computer students. The College also procured the services of Cengage Unlimited. IT students are provided supplemental instructional and learning materials such as ancillary lecture series, videos, discussion topics, interactive projects and hands-on materials. These additional support materials are expected to help students achieve the program's learning outcomes not met in this review cycle.</p>

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.
<p>In spring 2019, the College hired its first Instructional Technology Specialist to support instructors with technology and also help with online and hybrid courses. This faculty works</p>

closely with the Division Chair for Business, Computer, and Information Technology to manage online courses and train instructors.

Part-time faculty are provided training by the Division Chair and the Instructional Technology Specialist. There are four part-time and two full-time faculty members who teach program courses in IT. Five of the faculty members are Quality Matters certified, and one faculty member is also certified in peer reviewer and Quality Matters administration. The Division Chair and the Business faculty who are both full-time with over fifteen years of teaching and program management experience instruct some of the accounting related courses. These two faculty members along with the instructional technology specialist provide support, mentoring, and training for the part-time faculty.

Every year during faculty orientation, an educational expert provides training and faculty development for all full-time and part-time faculty. The College is utilizing the LMS platform for all face-to-face and online program courses. This allows the Division Chair who worked as an administrator of Blackboard, to provide additional support to instructors and students through LMS.

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

In the past two years, faculty members were trained to use Cengage teaching platforms. These platforms are utilized across all Business Technologies courses to take advantage of virtualized labs, hands-on learning, and testing platforms to facilitate the use of additional interactive learning activities. Additionally:

- Face-to-face lectures are being recorded and posted on the LMS for online students and for the review of face-to-face students
- The full-time faculty are provided laptop computers with software such as Snagit to facilitate lectures and screen capture for lecture and advising
- The faculty received training regarding program evaluation
- The performance of individual students in NOCTI tests are provided to faculty every semester for faculty review and program assessment.
- Almost all CAS students continue their education for obtainment of an Associate degree. Graduating students enroll in the Internship course are evaluated by the internship provider, and the evaluation results are shared with faculty.

Faculty instructing business-related courses for IT students attended multiple national and regional trainings, and webinars regarding best practices in teaching and learning, curriculum

design, and assessment. Faculty members with expertise in a certain area regularly train other faculty members in the areas of their expertise.

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

The Information Technology (IT) certificate does not have a full-time instructional faculty. However, an administrative faculty manages the IT certificate. The Division of Business, Computer and Information Technology has nine faculty members. These faculty members have a wide range of industry and educational expertise in accounting, finance, business, computer, math, and education sectors. The significant industry and educational experience of these faculty members helps Business students familiarize themselves with real-world experience.

Two faculty members hold three Master's Degrees and one faculty member, a graduate of Eastern, is completing a Doctor of Business Administration at Franklin University. One faculty with a rank of Associate Professor has taught at Eastern for over fifteen years, and another faculty with a rank of Professor has taught at Eastern for over twenty years. A full-time and a part-time faculty member are the recipients of the "Outstanding Contribution Award" of West Virginia Community College Association. One faculty member worked as the Administrator of Blackboard and managed online courses for over fourteen years.

The full-time faculty members are actively involved in advising IT students, preparing them for the job market, and helping them advance their education. Faculty members regularly assist program graduates with employment; also encourage, advise, and assist graduates with continuous of education by transferring to four-year institutions. Faculty members developed and taught more than eight IT elective courses to give students a variety of elective options to choose from to build and strengthen skills.

In 2019, a visiting HLC team traveled to the college to evaluate the Business Management program. This team met with full-time and adjunct Business Technologies faculty members who teach courses in Business, AST, Accounting and IT. After the interview and faculty personnel files, the Chair of the visiting team described the Business Technologies faculty members as very credentialed.

Section VI: Key Performance Indicators (KPIs)

A. Program enrollment data

	Fall 2021 ____	Fall 2020 ____	Fall 2019 ____	Fall 2018 ____	Fall 2017 ____
Headcount	0.8	1.86	1	0	4
Full-Time Equivalent (FTE)	1	2	0.2	0	2.73

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.

Graduates of the certificate in IT are usually AAS students majoring in IT and Business Management. These AAS students apply for certificate in IT once they complete the requirements for the certificate. Therefore, the graduation rate in the CAS program is usually higher than the number of students enrolled in the CAS program.

From fall 2016 to spring 2021, the number of IT students dropped from four to one for the following reasons:

- Enrollment decline at the state and national level.
- Enrollment decline in high schools.
- As a new college, Eastern helped many adult students complete their education, which resulted in a decrease in a pool of adult students seeking an associate degree.
- A strong job market has deterred students from seeking a college degree.
- Online programs offered by other colleges have attracted more students, particularly those students who live far from the main campus.

During the pandemic, all face-to-face students took virtual courses. Last fall, the college resumed offering face-to-face classes, however only one or two students enrolled in the face-to-face sections. For efficiency purposes, the College linked low live enrollment sections to the online sections through LMS. A full-time faculty recorded her lectures in the face-to-face classes for availability to online students.

In the next five years, face-to-face class sections will have less students as more students show interest in online programs. The increase in enrollment depends on the resources assigned to market the college programs, including the IT program.

The enrollment trend in the IT program is consistent with the general enrollment trend of other college programming. To help the program sustain the same number of graduates, hiring a full-time institutional marketing director with a budget of \$2,000 for promotion of the program is ideal.

To improve retention and increase graduation rates, the division implemented courseware for

all Business Technologies courses. The College increased the number of tutoring services available to students, and promoted these services through LMS. It also merged several similar courses to increase course enrollment in business technology classes.

The Division Chair is serving on the advisory committees of Hampshire, Hardy, Petersburg, and East Hardy High schools. He works closely with Business Technologies teachers for obtainment of articulation agreements, advising and recruitment of high school students. Proactively engaging with high school business teachers and Computer students will help the enrollment.

The faculty members meet with high school officials and high school students to recruit more students. Engaging the alumni and the graduates of the program would also support enrollment.

IT students are required to complete eight program courses as well as two general education courses. The Division has procured the textbook services of Cengage Unlimited; students purchase a Cengage subscription for \$240 for all eight program courses. This has reduced the cost of textbooks for students to \$30 per textbook.

Typically, some IT students dual as Business majors. Similar to the IT program, Business Management, Administrative Support, and Accounting programs also utilize Cengage Unlimited textbook subscriptions. IT students with double majors spend an average of \$20 per book for a two-year subscription. These subscriptions provide students not only access to eBooks, but also access to courseware that enhances students' learning. These subscriptions also provide interactive course materials and facilitate the assessment of courses and programs.

The cost of textbooks for the IT students can drop even further if more general education courses use Cengage services. Lowering the cost of textbooks can increase enrollment and help with retention.

B. Program graduation history

	Spring 2021__	Spring 2020__	Spring 2019__	Spring 2018__	Spring2017__
Graduates	0	0	1	2	0

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.

During this program review period, three students graduated with a certificate in IT.

The graduation rate for the IT certificate is above 50%, which is higher than the College's average graduation rate. A primary contributing factor to this success rate is that faculty members have significant experience in advising, teaching and supporting students. Additionally, there has not been a turnover in the IT faculty for several years which has helped the retention rate.

In general, enrollment is a continual institutional challenge. To help the program sustain the same number of graduates, hiring a full-time institutional marketing director with a minimum budget of \$2,000 for promotion of the program is ideal.

Additionally:

- Create a position of Marketing Director
- Assign a budget for marketing of the IT program
- Work closely with the Marketing Director for program promotion
- Re-evaluate recruitment strategies for effectiveness
- Promote the IT Program through alumni
- Compare program and course outcomes to ensure all outcomes are covered and aligned
- Re-evaluate curriculum to ensure program outcomes are met
- Meet with high school Business Technologies teachers and students regularly
- Apply Quality Matters criteria to all courses
- Require, implement, and monitor regular and substantive interaction between students and instructors in all online courses as required by the U.S. Department of Education

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)*

	2020- 21__	2019- 20__	2018- 19__	2017- 18__	2016- 17__
Headcount	2	1	3	4	1
FTE	1.86	0.2	1.86	2.73	0.93
Degrees conferred	0	0	1	4	1
Credit hour production (refers to the number of credit hours generated by program faculty). The program does not have full-time faculty. Business	285	423	357	405	324

faculty teaches one of the program courses.					
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Credit hour production: **Number of student credit hours generated by program faculty teaching in program courses over the academic year**, encompassing summer, fall and spring.

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.
N/A

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

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

F. Transfer data for program graduates

	2020-21__	2019-20__	2018-19	2017-18__	2016-17__
*Number of graduating students who transferred to a four-year institution	N/A	0	0	1	0
Percentage of graduating students who transferred to a four-year institution	N/A	0%	0%	25%	0%

*Five graduates of the CAS in IT completed an AAS in IT and one graduate didn't complete.

G. Job placement data

	2020-21__	2019-20__	2018-19	2017-18__	2016-17__
Number of graduating students who sought employment	0	0	1	4	0
Percentage of graduating students who sought employment	N/A	N/A	100%	100%	N/A

Number of graduating students who gained employment	N/A	N/A	1	3	N/A
Percentage of graduating students who gained employment	N/A	N/A	100%	75%	N/A

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.

While the college can increase enrollment in online sections through effective marketing, the enrollment in face-to-face sections is expected to be very low. This enrollment drop is the result of several factors including the effect of the pandemic that shifted the face-to-face students to online courses. To address this issue, the face-to-face sections are linked to the online sections and are taught by the full-time faculty. The lectures in the face-to-face sections are recorded and made available to the online students.

The job market for IT graduates is expected to be strong for the next five years. This should create both challenges and opportunities for the program, as many high school graduates might enter the job market without seeking a college degree. And at the same time, some high school graduates might decide to advance their education by seeking an IT degree to secure higher-paying jobs.

The College has a 2+2 agreement with several universities. Graduates of the program can transfer all 30 credit hours to an AAS degree and then to a bachelor's degree programs at these universities.

All IT graduates in the past five years remained in the state. More than seventy percent of these graduates secured jobs in local organizations.

The division has nine highly qualified faculty members. Six of these faculty members teach IT related courses. Eight of the faculty members live in Eastern's district and one online faculty member is a senior database administrator at Purdue University.

The enrollment in the IT program depends on the resources assigned to effectively market the program

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):

- 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.

The College is effectively using technology to serve IT students, and has enough experienced and dedicated Business Technologies faculty and staff to provide quality education.

The IT and other Business Technologies programs are low-cost programs. Revenues generated by tuition are enough to cover the cost of instruction.

In 2018, the Division of Business, Computer and Information Technology requested a \$130,000 grant to hire an Instructional Technology Specialist for three years. Part of the grant was used to pay for the costs associated with offering the IT program fully online. The college utilized this grant effectively and three of the business technology programs (Business Management, Accounting, and Administrative Support Technology) were approved by the HLC as fully online programs. Additionally, hiring an Instructional Technology Specialist helped the transition of all face-to-face courses to an online forum during the pandemic.

A full-time instructional faculty teaches courses related to Business Management and Accounting. Several of these courses are required for other similar programs such as Administrative Support, and IT programs. These programs have several common courses with the IT program and do not have full-time instructional faculty. As a result, students of these programs benefit from courses taught by full-time business faculty.

The total cost of Business Technologies programs which includes four AAS, four CAS in Business Management, Information Technology, Administrative Support Technology, and Accounting programs is \$110,000 annually. The cost associated with the IT program is \$15,000. Each of these four programs including IT generates \$5,000 of net income.

The salary of the Division Chair is partially financed by the tuition generated by the courses he teaches and also is financed by the general college fund.

In general, enrollment is a continual institutional challenge. To help the program sustain the same number of graduates, hiring a full-time institutional marketing director with a budget assigned for promotion of the program is ideal.

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.**

The Certificate in Applied Science in Information Technology has served Eastern's district for over ten years. Over eleven graduates of the program are currently working for a wide range of employers. These employers include medical, financial, educational, agricultural, and industrial organizations. The following recommendations are suggested to enable continued service to students and employers in Eastern's district:

- Create a position of Marketing Director
- Assign a budget for marketing of the IT program
- Work closely with the Marketing Director for program promotion
- Re-evaluate recruitment strategies for effectiveness
- Promote the IT Program through alumni
- Compare program and course outcome to ensure all outcomes are covered and aligned
- Re-evaluate curriculum to ensure program outcomes are met
- Meet with high school Business Technologies teachers and students regularly
- Apply Quality Matters criteria to all courses
- Require, implement, and monitor regular and substantive interaction between students and instructors in all online courses as required by the U.S. Department of Education

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: 3/25/22
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:

Certificate in Information Technology - Matrix	BUS	CIS	CIS	CIS	CIS	CIS	MTH	ENL	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT
	101	114	119	121	133	197	Elec	101	110	134	180	181	192	194	198	220	228	233	234	269	275		
Design an interactive website					x													x					
Perform routine maintenance and repairs on PCs and hardware										x													
Demonstrate effective and communication and computation skills							x	x															
Demonstrate a basic knowledge of business organization and procedures	x																						
Demonstrate basic knowledge regarding information Technology						x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Design and manage a database				x																x			
Demonstrate mathematical skills							x																
Demonstrate knowledge of Computer Applications		x	x	x																			

Appendix B – Alignment of Assessed Outcomes

Year	Semester	Subject	Course #	# of Students	Course Average	Threshold	Outcome Performance +/-	PLO # Assessed by the course
2017	Spring	CIS	119	21	85%	75%	10%	8
2018	Spring	IT	228	6	64%	75%	-11%	4
2017	Fall	IT	233	12	42%	75%	-33%	1, 4
2020	Fall	BUS	101	19	91%	75%	16%	4
2021	Fall	IT	110	3	73%	75%	-2%	5
2021	Fall	IT	181	2	95%	75%	29%	5
2017	Spring	CIS	119	21	85%	75%	10%	8
2017	Fall	CIS	114	25	86%	75%	11%	8
2019	Fall	CIS	114	27	89%	75%	14%	8
2020	Spring	CIS	121	9	51%	75%	-24%	8