



EASTERN WEST VIRGINIA COMMUNITY AND TECHNICAL COLLEGE

DISCOVER YOUR POTENTIAL

Program Review

Program Name: Information Technology

Degree or Certificate: Associate 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 goals of the program are to give students the skills to work in information technology positions and to respond effectively to the needs of employers. Graduates of the program will be fully prepared to perform the duties of IT professionals. Graduates with an Associate Degree in Information Technology are able to gain national employment in a variety of diverse businesses and organizations. This program addresses an unmet labor need for many local businesses and organizations. These businesses include food processing, cabinet manufacturing, healthcare, banking, educational institutions, high tech companies, and other service organizations. 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. Apply basic knowledge of system administration and scripting techniques
2. Perform routine maintenance and repairs on the personal computer (PC)
3. Install and troubleshoot operating systems
4. Design an interactive website
5. Demonstrate knowledge regarding Information Technology and Cybersecurity
6. Design and manage a database
7. Demonstrate basic knowledge of networking
8. Demonstrate a basic knowledge of business organizations and procedures
9. Demonstrate effective communication skills
10. Develop scientific knowledge and mathematical analytical skills and techniques
11. Demonstrate global awareness and knowledge of human diversity
12. Demonstrate knowledge of computer applications

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

The Associate in Applied Science in Information Technology (IT) degree 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 will be better prepared as employees to perform the duties of IT professionals in Eastern's district to meet the technology needs of their employers. In keeping with the institution's mission, vision and goals, the IT Program is able to meet the expressed needs of the District's businesses. The program supports the institution's mission in several ways. First, the program addresses the expressed need for professional, skilled, entry-level employees. Second, the program offers students a technical core of courses (42 credit hours) as well as a defined general education core (18 credit hours). Third, the program design provides an educational ladder building from skills sets to a certificate (30 credit house) and eventually to an associate in applied science degree. Consequently, students are able to provide employers with evidence of proficiency via skill set certification or certificates as they progress toward the associate degree. Fourth, the program promotes lifelong learning by encouraging current

employees to build upon existing credentials. And finally, the program contributes toward the enhancement of economic development within the college's service district assuring a labor pool of professionally trained, and skilled employees.

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 plans of (1) Stabilizing and Increasing Enrollment, (2) Increasing Student Retention & Success, (3) Quality, and (4) 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 program is customized to serve the needs of small and mid-size organizations in Eastern's district which includes medical, financial, educational, agricultural, and industrial companies.

Students in this program complete a general education core in communication, computer literacy, math, science, and social science. Additionally, the degree includes a technical core of

courses in PC Repair and Troubleshooting, Web Design, Networking, Database Management, and Cyber Security, and a Programming Language.

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, Digital Forensics, 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 Information Technology AAS and CAS. All of these programs, including IT, 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 Information Technology. This commonality between programs has encouraged some of the students to take an average of eight (8) additional courses to graduate with a second degree 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.

Over eighteen graduates of the program are working for a wide range of employers which include, medical, financial, educational, agricultural and industrial organizations. From fall 2016 to spring 2021, nine students graduated with an associate degree in Information Technology. Six of the graduates 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, law firms 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 college does not have a full-time IT faculty and instead, it relies on part-time faculty. While relying on part-time faculty creates a challenge, it eliminates the high cost associated with hiring a full-time faculty. This contributes to making the IT a low-cost program that generates an annual net income of \$5000.

Opportunities

To better serve the needs of Eastern's six-county district, it is recommended the program continues to be offered in its current format with full-time day course implementation, increase the number of 2+2 articulation agreements, and to 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
- Facilitate the transfer of graduates to four-year institutions
- 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. Two articulation agreements were established with Franklin University and Frostburg State University.
- **Explore feasibility of offering the program as a web-based program:** Three of the Business Technologies programs were approved by the HLC to be offered online. This program will be offered starting fall 2023.
- **Promote industry certification:** Students are regularly advised to take the industry exams. Several students 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 used in some of the IT courses that were offered online.
- **Utilize technology to better assess course and program outcomes:** Blackboard was used for all IT courses. The assignments, projects, and exams were linked to the course outcomes, and assessment reports incorporated, assessed and analyzed Blackboard generated reports.
- **Facilitate the transfer of graduates to four-year institutions:** All IT graduates received advising to transfer to four-year institutions. Two of the graduates already had bachelor's degree when they started taking IT courses.
- **Revise curriculum by replacing one of the CIS courses with an IT course:** CIS 122 (Intro to Information Systems) was replaced by IT 110 (Intro to Information Technology).

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

Cyber Security was added to the list of program outcomes.

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. One was added to the required core and two were added to the 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. 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. Program-level outcomes are fully aligned with the courses and 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.

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. The program 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 test results, Eastern students (N=4) taking the test, underperformed the national average (N=2188) by 13.3% points.

NOCTI Standard Description	Eastern Score (N = 4)	Nation Standard Score (N = 2188)	Outperformed Underperformed National Average
Professional Standards, Ethics, and Business Practices Eastern Outcome: 8	78.3	82.6	-5.49%
General Computer Knowledge and Concepts Eastern Outcome: 2, 3, 4, 6	57.4	70.4	-22.65%

PC (Personal Computer) Hardware Knowledge Eastern Outcome: 2	55.2	61.7	-11.78%
PC (Personal Computer) Software Knowledge Eastern Outcome: 3	70.4	82.7	-17.47%
Networking and Data Communications Eastern Outcome: 1, 7	60.9	64.8	-6.40%
Security Eastern Outcome: 7, 5	67.3	79.1	-17.53%
Average	64.9	73.6	-13.30%

Comprehensive National NOCTI's test results:

NOCTI STANDARD SCORE REPORT										
Written Norms Report Data > Post-Test										
Test Code	Version	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
4122	1	Computer Tech	Professional Standards, Ethics, and Business Practices	9	78.3	63.8	2188	82.6	72.4	9.0
4122	1	Computer Tech	General Computer Knowledge and Concepts	9	57.4	63.8	2188	70.4	72.4	14.6
4122	1	Computer Tech	PC (Personal Computer) Hardware Knowledge	9	55.2	63.8	2188	61.7	72.4	12.4
4122	1	Computer Tech	PC (Personal Computer) Software Knowledge	9	70.4	63.8	2188	82.7	72.4	12.6
4122	1	Computer Tech	Networking and Data Communications	9	60.9	63.8	2188	64.8	72.4	11.9
4122	1	Computer Tech	Security	9	67.3	63.8	2188	79.1	72.4	15.0

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

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 outcomes, students underperformed all outcomes. According to Eastern generated course assessment reports for CIS 119, BUS 101, IT 181, and IT 284 students outperformed the benchmark of 75% by an average of seventeen percentage points and they underperformed the benchmark for IT 228, IT 110, IT 233, and CIS 122 by fifteen percentage points.

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 program 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 IT students take the IT Internship or the Capstone as their final course. These courses are usually taught jointly by the Division Chair and a part-time 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 outperformed the benchmark of 75% by an average of 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 assessment and continuous improvement purposes.

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	<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 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>

	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.
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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 program and course outcomes that did not meet the benchmark • Comparing the program and courses with the curriculum of the other state colleges that offer similar program • Reviewing program outcomes and course outcome to ensure all outcomes are covered and aligned • 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

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 closely with the Division Chair for Business, Computer, and Information Technology to manage online courses and train instructors.</p> <p>Part-time faculty are provided training by the Division Chair and the Instructional Technology Specialist. There are seven part-time and 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 teach some of the IT related courses. These two faculty members along with the instructional technology specialist provide support, mentoring, and training for the part-time faculty.</p> <p>Every year during faculty orientation an educational expert provides training and faculty development for all full-time and part-time faculty. The college has been utilizing LMS for all</p>

face-to-face and online program courses. This allowed the Division Chair who worked as an administrator of Blackboard, to provide additional support to instructors and students through the 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, the faculty members have been trained to use Cengage teaching platforms such as MindTap, CNOW, Aplia, *OWL*, and SAM. These platforms have been 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:

- 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 lecture and screen capture that are being utilized for lecture and advising
- The faculty received training regarding program evaluation
- The performance of individual students in NOCTI tests are provided to the faculty every semester for the faculty review and for program assessment
- Graduating students who take Internship are evaluated by the internship provider, and the results of the evaluation are shared with the faculty

The faculty who teaches the business-related course for the IT students attended multiple national and regional training and webinars regarding best practices in teaching and learning, curriculums design, and assessment. Faculty members who have expertise in certain areas 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) program does not have a full-time instructional faculty. However, an administrative faculty manages the IT program. The Division of Business, Computer and Information Technology has nine Business Technologies faculty members. These faculty members have a wide range of industry and educational expertise in the areas of accounting, finance, business, computer, math, and education. The significant industry and educational experience of these faculty members helps IT students familiarize themselves with real-world experience.

Two of the faculty members hold three Master's Degrees and one faculty member, who is a graduate of Eastern is completing her 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. The faculty members regularly assist graduates of the program to secure jobs. They also encourage, advise, and assist the graduates to continue their education by transferring to four-year institutions.

The faculty members have developed and taught more than eight IT elective courses to give students a variety of elective options to choose from to build and strengthen their skills.

In 2019, a visiting HLC team came 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 after reviewing the 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	6	5	10	10	10
Full-Time Equivalent (FTE)	4.2	2.6	6.2	7.4	5.6

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.

From fall 2017 to fall 2021, the number of enrolled IT students declined from 17 to 5 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 to 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 14 program courses as well as six general education courses. The division has procured the textbook services of Cengage Unlimited; students purchase a Cengage subscription for \$240 for all 14 program courses and two of the general education courses. This has reduced the cost of textbooks for students to \$40 per textbook.

Typically, some of IT students dual as Business majors. Similar to the IT program, Business Management, Administrative Support, and IT programs also utilize Cengage Unlimited textbook subscriptions. IT students with double majors spend an average of \$25 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 to accounting 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.

The Information Technology is one of nine Business Technologies programs/certificates offered through the Division of Business, Computer and Information Technology. Introduction to Business (BUS 101) acts in the role as a gateway course and is required for all Business Technologies programs, which includes the IT program. From fall 2016 to spring 2021, one hundred nine students took this course. Of these one hundred nine students, forty-two students dropped out of the program(s). The remaining sixty-seven students have either graduated from the program(s) or continue to work on their degrees. This indicates the aggregate retention rate for the Business Technologies programs stands at 62%. Thirteen of forty-two students who dropped out of the programs have a cashier's hold placed on their accounts. The cashier's hold might be a major contributor (31%) to the dropout rate.

B. Program graduation history

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

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.

From fall 2012 to spring 2016, seventeen students graduated from the IT program. During this program review, from fall 2016 to spring 2021, nine students graduated with an IT degree.

The retention rate for the IT program is above 60%, which is higher than the College's average retention 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 has been 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	5	2	10	10	17
FTE	2.6	1.46	7.4	5.6	12.53
Degrees conferred from fall 2016 to spring 2021	0	2	2	3	2
Credit hour production (refers to the number of credit hours generated by program faculty). The program does not have full-time faculty. The business faculty teaches one of the program courses.	285	423	357	405	324

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	0	0	0	0	0
Percentage of graduating students who transferred to a four-year institution	N/A	N/A	N/A	N/A	N/A

*One completer had a master's degree when transferred to the IT program. Another completer had a bachelor's degree when transferred to the IT program.

G. Job placement data

	2020-21__	2019-20__	2018-19	2017-18__	2016-17__
Number of graduating students who sought employment	0	2	2	3	1
Percentage of graduating students who sought employment	N/A	100%	100%	100%	50%
Number of graduating students who gained employment	N/A	2	1	2	1
Percentage of graduating students who gained employment	N/A	100%	50%	67%	100%

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 decline in enrollment 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 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 60 credit hours to bachelor's degree programs at these universities. All IT graduates in the past five years remained in the state and six of the nine graduates secured IT jobs in local organizations.

The division has nine highly qualified faculty members. 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 promote 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. 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 Business faculty and the Administration faculty who has a master's degree in Information Systems teach three of the IT related courses.

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.

In general, enrollment has been a continual institutional challenge. 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.

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 Associate in Applied Science in Information Technology has served Eastern's district for over ten years. Over eighteen 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 the students and employers in Eastern's district:

- Create a position of Marketing Director
- Assign a budget for marketing of the Information Technology program
- Work closely with the Marketing Director for program promotion
- Re-evaluate recruitment strategies for effectiveness
- Promote the Information Technology 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.

2017	Spring	CIS	119	21	85%	75%	10%	12
2017	Fall	CIS	114	25	86%	75%	11%	12
2019	Fall	CIS	114	27	89%	75%	14%	12
2020	Spring	CIS	121	9	51%	75%	-24%	6