Wayne Community College
Program Review and Outcome Assessments, 2020-21
(Previous Program Review Cycle, 2017-18)

Name of Program: Cybersecurity

Section 1: Program Overview

Mission/Purpose: ***As part of the review cycle, programs are asked to formally evaluate their mission/purpose statement.***

Please provide your current mission/purpose statement.

The mission of the Information Systems Technology Department is to provide graduates the skills for employment in diverse computer technology environments.

Provide narrative for the analysis of the mission/purpose statement. *(Are you planning to revise your mission/purpose statement? If so, please provide your revised mission/purpose statement and reason for the change.)*

Cybersecurity is a technical path within the Information Technology (IT) curriculum which prepares graduates for employment in the technology sector as designers, testers, support technicians, system administrators, developers, or programmers who use computer software and\or hardware to design, process, implement and manage information systems in specialties such as database services, security, business intelligence, healthcare informatics and others depending on the technical path selected within this curriculum.

The current mission/purpose statement accurately reflects the aims of the department's work.

Describe how the program's mission aligns with the College's vision, mission, core values, and strategic goals. Identify which Institutional Goal(s) best aligns with your program and explain why.

Goal 1: Increase Student Access
Goal 2: Ensure Program Excellence
Goal 3: Improve Student Success
Goal 4: Ensure Institutional Quality

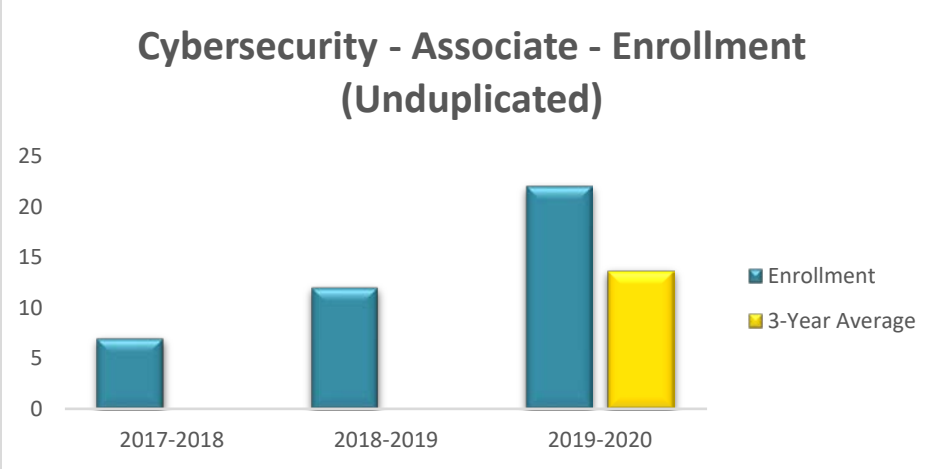
The department's mission directly correlates to the College's vision, mission, core values, and strategic goals. The core values are directly woven into the curriculum, being taught, and modeled to students from the moment they enter the program. "Student access" is increased by making courses available online or during times and days that increase accessibility. Faculty take great measures to ensure textbooks and other learning materials are free or low cost. Instructors "ensure program excellence" by examining rigor, relevance, and quality each semester in all of their courses. This is intensified by the feedback from the advisory committee to ensure the content is up-to-date, competitive, and relevant to the world of work--there is a continuous effort to "improve student success". All program faculty are keenly aware that remote learning provides the global community many options for learning; hence, each faculty member makes great strides to ensure WCC is the preferred choice for quality education and training.

Associates, Diplomas, Certificates, and Pathways Offered: Utilizing the table below, list all associates, diplomas, certificates, and pathways offered.

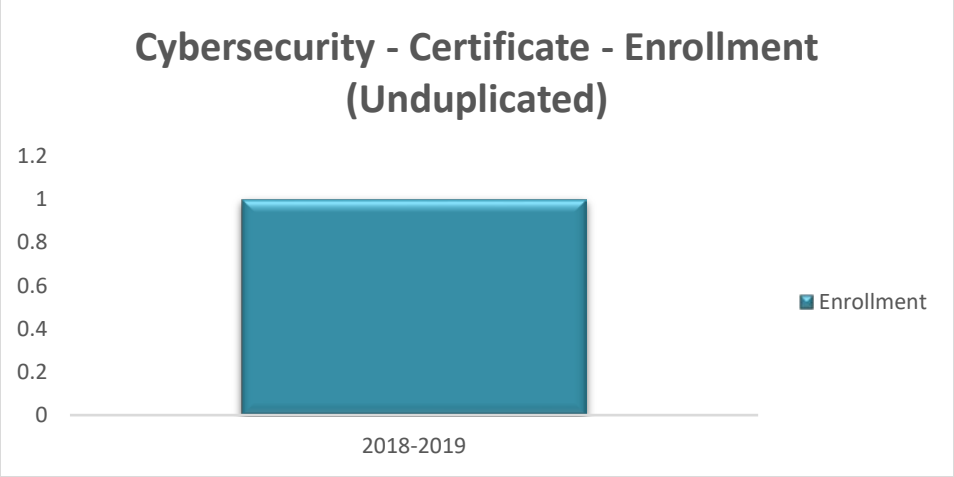
Program Type (Associate, Diploma, Certificate, or Pathway)	Program Title
Degree	Cybersecurity A25590S
Certificate	Cyber Defense Certificate C25590CD
Certificate	Cybersecurity Concepts Certificate C25590CC
Certificate	Network Systems Certificate C25590NY
Pathway	Systems and Hardware Support (CCP) C25590HX

Program Enrollment (Academic Year - Fall, Spring, Summer) – for each degree level (Associate, Diploma, Certificate, and Pathway)

Program Enrollment (Associate) *(unduplicated)*		
Academic Year (Fall, Spring, Summer)	**Enrollment**	**3-Year Average**
2017-2018	7	
2018-2019	12	
2019-2020	22	14



Program Enrollment (Certificate) *(unduplicated)*		
Academic Year (Fall, Spring, Summer)	**Enrollment**	**3-Year Average**
2017-2018		
2018-2019	1	0
2019-2020	0	0

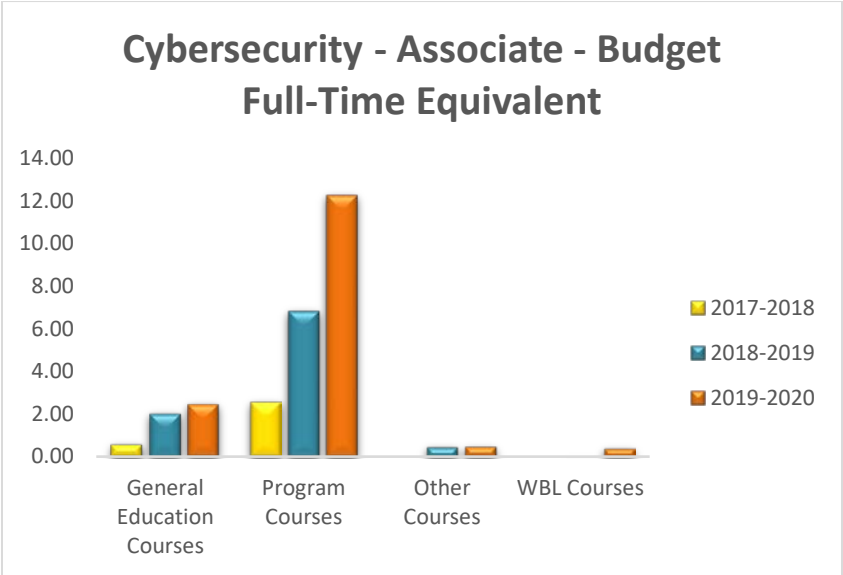


Provide narrative for analysis of program enrollment. *(Is enrollment increasing or decreasing? What are possible reasons for increase/decrease? Describe any plans to improve or increase program enrollment.)*

Program enrollment for Cybersecurity is increasing. There is strong demand in the workforce for cybersecurity professionals. The department routinely recruit students when possible by passing out flyers, attending career fairs, making phone calls, demonstrating technologies, and doing tours of the labs. We will continue to follow these methods to increase program enrollment.

Program Budget Full-Time Equivalent (BFTF) (Academic Year - Fall, Spring, Summer) – *(highest level only)*

Academic Year (Fall, Spring, Summer)	General Education Courses	Program Courses	Other Courses	WBL Courses	Total
2017-2018	0.59	2.56	0.00	0.00	3.15
2018-2019	2.06	6.84	0.50	0.03	9.43
2019-2020	2.50	12.28	0.50	0.41	15.69
Total	5.15	21.68	1.00	0.44	28.27



Analysis of program budget full-time equivalent (BFTE) *(What is the program budget FTE data indicating? Is the program budget FTE increasing or decreasing? What are possible reasons for increase/decrease? Describe any plans to increase program budget FTE.)*

BFTE is increasing because the program enrollment is increasing. A possible reasons for increase is because there is high demand for cybersecurity professionals. The best method to increase BFTE is to increase enrollment. WBL is a significant FTE generator. The program lead instructor will grow partnerships with employers to expand internships that produce increased WBL enrollment.

Activities to ensure program is current (2017-18; 2018-19; 2019-20 – Academic Year, Fall, Spring, Summer)
List program curriculum changes, revisions, and/or deletions.

Course Title	Date – Updated / Revised / Deleted
Systems Security A25590	Fa2017; added as a program of study
SEC289	Fa2017; added CTI 141, CTI240, NOS120, NOS230, SEC160, SEC175 as prereq
SEC175	Fa2017; added NET126 as prereq
SEC160	Fa2017; added NET126 as prereq
C25590CD Cyber Defense Certificate	Fa2017, added Certificate; add NET125, NET126, CTI120, SEC110, SEC160, SEC175 as requirements
SEC110	Fall2019; added NET125 prereq
CTI140	Fall2019; added NET125 prereq
Cybersecurity Concepts Certificate C25590CC	Fa2019; added Certificate; Add CTS115, NET125, CTI120, SEC110 as requirements
Systems Security A25590	Fa2019; name changed to Cybersecurity

Provide an overview of the significance of the program changes and improvements that occurred over the past three years. *(What were the program's / discipline's goals and rationale for expanding and improving student learning, including new courses, program degrees, certificates, diplomas, and/or delivery methods?)*

The demand in the workplace for Cybersecurity is increasing. The Systems Security was added as a program of study. SEC 289, SEC 175, SEC 160 were added to provide core classes in the Systems Security program. CTI 141, CTI 240, NOS 120, NOS 230, SEC 160, SEC 175 were added as the prerequisite for SEC 289, and NET 126 was added as the prerequisite for SEC 175 and SEC 160. The prerequisite classes were needed to provide a basic understanding and to give students a better chance to succeed in the respective courses. Cyber Defense and Cybersecurity Concepts were added as certificates to make the students more marketable in the Cybersecurity field. The program name changed from Systems Security to Cyber Security to make the program more recognizable to the public.

Advisory Committee: dates, summary of minutes, activities (2017-18; 2018-19; 2019-20 – Academic Year – Fall, Spring, Summer)

Summary of Advisory Committee Activities

Year	Meeting Dates	Recommendations / Activities
2017-2018	Various days during Fall 2017; Mar 29, 2018	The fall meeting covered current industry needs, future industry needs, troubleshooting skills, and content recommended for CSC 151/251, CSC 289, CTI 115, SEC 160, SEC 175, SEC 285. The spring meeting focused on general employee soft skills. Refer to meeting minutes on file for more details.
2018-2019	Oct 18 - Dec 13, 2018; Mar 28, 2019	The fall meeting discussed recommended content for CTI 120, CTS 120, NET 130, SGD 112, and SGD 113. The spring meeting focused on general employee soft skills. Refer to meeting minutes on file for more details.
2019-2020	Oct 29, 2019; Spring 2020 cancelled because of the pandemic.	The fall meeting covered recommended hard skills for courses related to service desk, tech support, system admin, cybersecurity, storage, and virtualization. During the webinar, there was discussion about the need for updated motion capture technology. Refer to meeting minutes on file for more details.

(Ensure that Advisory Committee Meeting Minutes are filed in the IE Shared Program Folder.)

Provide narrative for analysis of trends in the field or industry (emerging needs) that contribute to maintaining program relevance. *(Based on advisory committee suggestions, environmental scans, and other sources external to the program/discipline, how well is the program/discipline responding to the current and emerging needs of the community? What resources might your program need?*

Input from advisory members covers a broad range of technologies, hard skills and soft skills. All of these recommendations are directly mapped to current industry trends and expectations. Campus policies, leadership, and funding have allowed the program maximum flexibility to adapt to rapid changes within the industry. Planning objectives are based upon advisory input. As a result, the program learning environment stays aligned with preparing students for workforce needs. The spring advisory committee meeting is a joint meeting with other departments in the division that is held annually. Students are invited to the spring meeting so that they have the opportunity to connect with employers (advisory members) for potential job placement. Currently, the program needs to provide students access to a remote access live cyber range.

Labor Market Data

Provide narrative for analysis of Labor Market Data. *(Review Labor Market Data provided in the audit data reports and provide an assessment of the data.)*
There is a light job posting demand in Wayne County. The national median salary for the industry is $104,220 compared to $99,378 for Wayne County. Regional employment is lower than the national average. An average area of this size typically has 957 jobs; there are 288 in this region. Low average supply of jobs make it more difficult for graduates to find employment in this region. The regional compensation is 5% lower than the national

average. The top hard skills are SQL, computer science, software engineering, JavaScript, information systems, C#, .NET, project management, and Java. The top common skills are communications, management, problem solving, leadership, written communications, and interpersonal communications. Retirement risk is high in Wayne County. Racial diversity is low in Wayne County. Gender diversity is about average in Wayne County. The major of occupation by age breakdown is 25-34 (20.6%), 33-44 (25.7%), and 45-54 (25.8%). The majority of occupation race/ethnicity breakdown is White (77%), Black (12.1%), Asian (4.9%), and Latino (4%). The occupation gender breakdown is 72.7% male and 27.3% female.

Section 2: Faculty Profile

Have all faculty credentials been verified? (*Verify required documents are in personnel files.*)
Yes ☒ No ☐

List of Faculty and Status (2017-18; 2018-19; 2019-20 – Academic Year – Fall, Spring, Summer)

Faculty / Name	Full-Time / Part-Time	Total Years within Department/Program	Total Years at WCC
Arthur Wyatt	PT	3	3
Brian Jensen	PT	7	7
Cynthia Kaye	FT	3	3
David Vinciguerra	FT	11	11
Demarcus Reid	FT	7	16
Glenn Royster	FT	10	17
James Flannery	PT	1	1
Jenneth Honeycutt	FT	4	4
Jennifer Tyndall	FT	7	7
Jerome Brooks	FT	8	8
Jose Alicea	PT	1	1
Robert Shafer	PT	8	8
Sabrina Mozingo	PT	7	7
Tim Collins	PT	1	1
Tony Smith	PT	6	6
Velma Edwards	PT	7	7

Provide narrative for adequacy of faculty numbers. *(Do you have enough faculty to support your program?)*

Courses are taught by full-time and adjunct faculty. Adjunct faculty members are hired on an as-needed basis. The faculty members are adequate for the courses taught in the program.

Faculty Contact and Credit Hours

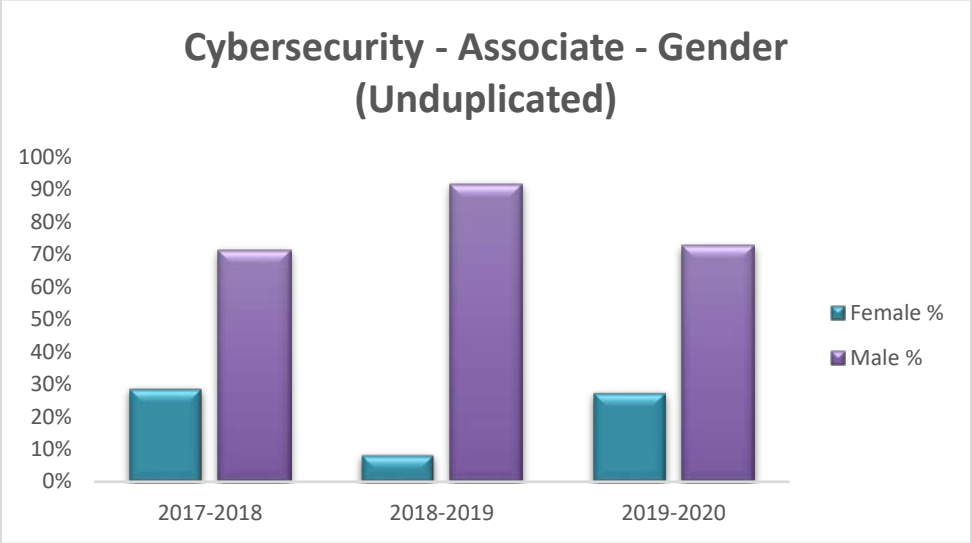
Faculty / Name	Full-Time Part-Time	Fall 2017		Spring 2018		Summer 2018	
		Contact	Credit	Contact	Credit	Contact	Credit
Brian Jensen	PT	5	3	5	3		
Jerome Brooks	FT	18	12	12	1.5	13	9
Jenneth Honeycutt	FT	4	3	5	1.5		
Demarcus Reid	FT	8	6	6	4.5		
Glenn Royster	FT	8	6	6	4.5	6	6
Jennifer Tyndall	FT	6	6				
Velma Edwards	PT			4	3		
Robert Shafer	PT			10	6		
Tony Smith	PT			5	3		
Arthur Wyatt	PT			4	3		
David Vinciguerra	FT	1	1				

Faculty / Name	Full-Time Part-Time	Fall 2018		Spring 2019		Summer 2019	
		Contact	Credit	Contact	Credit	Contact	Credit
Brian Jensen	PT	5	3				
Jerome Brooks	FT	18	12	12	7.5	13	9
Jenneth Honeycutt	FT	8	7			5	3
Demarcus Reid	FT	8	6	4	3		
Glenn Royster	FT	9	6	15	10.5		
Jennifer Tyndall	FT	6	6	3	3		
Velma Edwards	PT			4	3	4	3
Tony Smith	PT			9	6		
Arthur Wyatt	PT			8	6		
David Vinciguerra	FT			1	1		

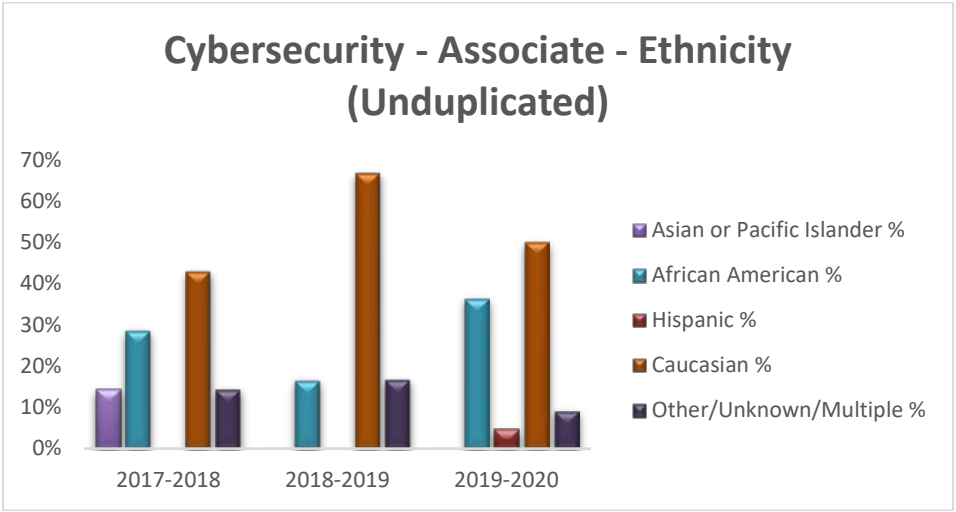
Faculty / Name	Full-Time Part-Time	Fall 2019		Spring 2020		Summer 2020	
		Contact	Credit	Contact	Credit	Contact	Credit
Brian Jensen	PT	10	6				
Jerome Brooks	FT	9	6	14	9	12	9
Jenneth Honeycutt	FT	4	3				
Glenn Royster	FT	5	3	5	3	5	3
Jennifer Tyndall	FT	13	12	3	3		
Tony Smith	PT	4	3	9	6		
Arthur Wyatt	PT	4	3				
Sabrina Mozingo	PT	8	6				
James Flannery	PT			4	3		
Jose Alicea	PT			4	3		
Tim Collins	PT			8	6		
Cynthia Kaye	FT			5	3	5	3
David Vinciguerra	FT	1	1	1	1		

Section 3: Student Demographics - *Parent program (highest level only) data is provided.*

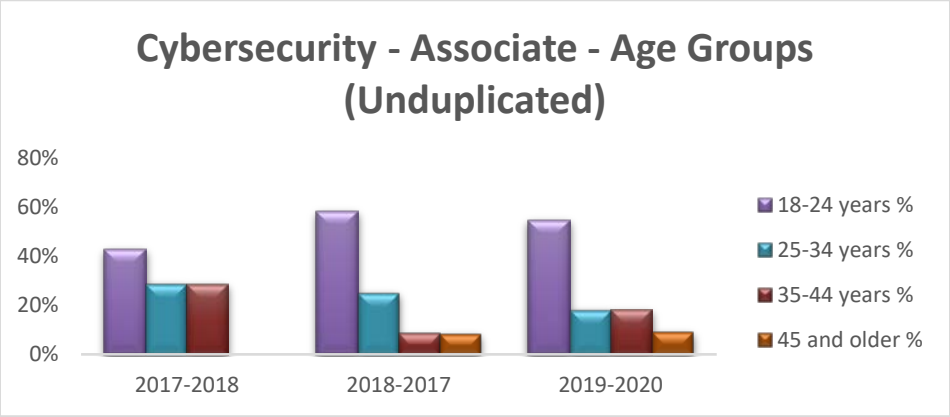
Gender (Associate - unduplicated) Academic Year – Fall, Spring, Summer						
Academic Year	Female		Male		Total	
	N	%	N	%	N	%
2017-2018	2	29%	5	71%	7	100%
2018-2019	1	8%	11	92%	12	100%
2019-2020	6	27%	16	73%	22	100%



Ethnicity (Associate – unduplicated) Academic Year – Fall, Spring, Summer														
Academic Year	American Indian		Asian or Pacific Islander		African American		Hispanic		Caucasian		Other / Unknown / Multiple		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2017-18	0	0	1	14%	2	29%	0	0%	3	43%	1	14%	7	100%
2018-19	0	0	0	0%	2	17%	0	0%	8	67%	2	17%	12	100%
2019-20	0	0	0	0%	8	36%	1	5%	11	50%	2	9%	22	100%



Age (Associate – unduplicated) Academic Year – Fall, Spring, Summer												
Academic Year	Under 18		18-24 years		25-34 years		35-44 years		45 and older		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
2017-18	0	0	3	43%	2	29%	2	29%	0	0%	7	100%
2018-19	0	0	7	58%	3	25%	1	8%	1	8%	12	100%
2019-20	0	0	12	55%	4	18%	4	18%	2	9%	22	100%



Provide narrative for analysis of student demographics. *(How are you recruiting/retaining a diverse population of students? What are some ways you can increase student diversity in your program?)*

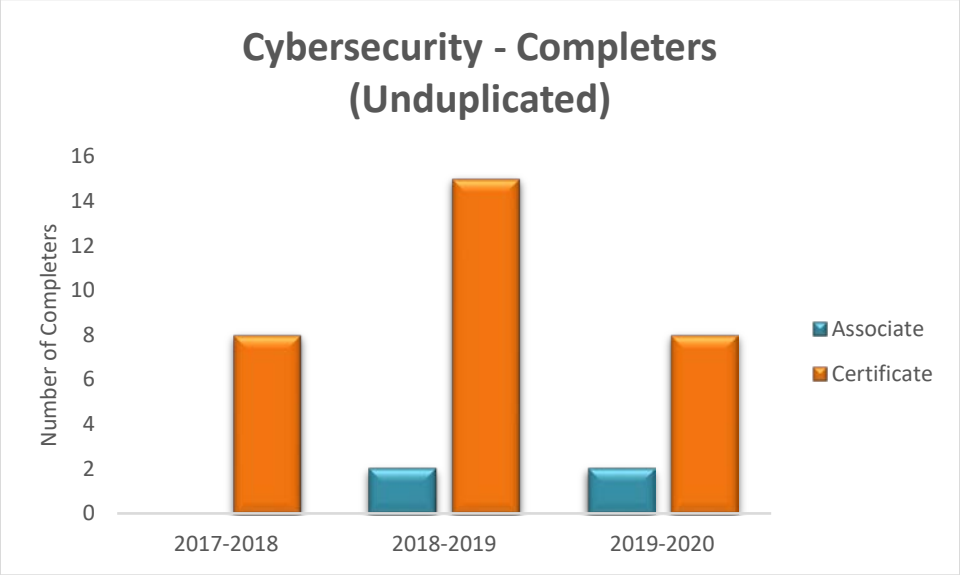
In 2017-2018, 43% of students were in the 18-24 age group and 29% of the students were in the 25-44 age group. In 2018-19, 58% of students were in the 18-24 age group, 25% of the students were in the 25-34 age group and 8% of students were in the 35-older age group. In 2019-2020, 55% of students were in the 18-24 age group, 18% of the students were in the 25-44 age group and 9% of the students were in the 45-older age group. Instructors are actively recruiting and striving to broaden the participation for female students and underserved populations in STEM. Marketing materials and recruiting events have focused on presenting the industry and the program in a manner that is representative of a range of demographics.

Section 4: Program Outcomes

Outcome #1: Completers *(unduplicated) (Degree level, highest level of attainment)*

Baseline: 11 # (*Average of total completers for the last three years – 2017-18; 2018-19; 2019-20*)
Standard: 12 #
Target: 15 #

Number of Completers *(unduplicated) – Graduation Year – Summer, Fall, Spring*				
Graduation Year	**Associate**	**Diploma**	**Certificate**	**Total**
2017-2018	0		8	8
2018-2019	2		15	17
2019-2020	2		8	10



Provide narrative for analysis of completers. *(Based on the data, provide a narrative of your analysis of completions. Indicate factors that may have affected your completions. How might you increase the number of completers in your program?)*

Since the Cybersecurity program is new, the completers in the associate category was low. The Network Management program and Cybersecurity program have almost the same courses. Some of the students transferred to the cybersecurity as they see the cybersecurity field is growing. The program will seek to join the Carolina Cyber Network, which is a consortium of higher education network that provides training to industry partners and high school students across the state. Joining the CCN will attract more students to the degree program and by default increase not only the degree completers but also the certificate completers.

Provide narrative for analysis of completer standard/target. *(Identify standard and target. Standard is the acceptable performance, which must be higher than the baseline; Target is the desired performance, which must be higher than the standard.)*

New completer standard and target was set based on the three-year baseline data from 2017-18, 2018-19 and 2019-20.

The standard has been set at 12 # and the target at 15 #.

Identify Completer Action Items
(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	**Action Items** *(Identify action items as a result of your program outcome assessment.)*	**Target Date** *(Identify your projected target date for completion of action items.)*	**Assessment of Action Items** *(How will you assess the results of action items?)*
1	Modify the cyber security program and differentiate it from the network management program.	FALL2021	Program advisor will monitor students' rationale for selecting Cybersecurity.

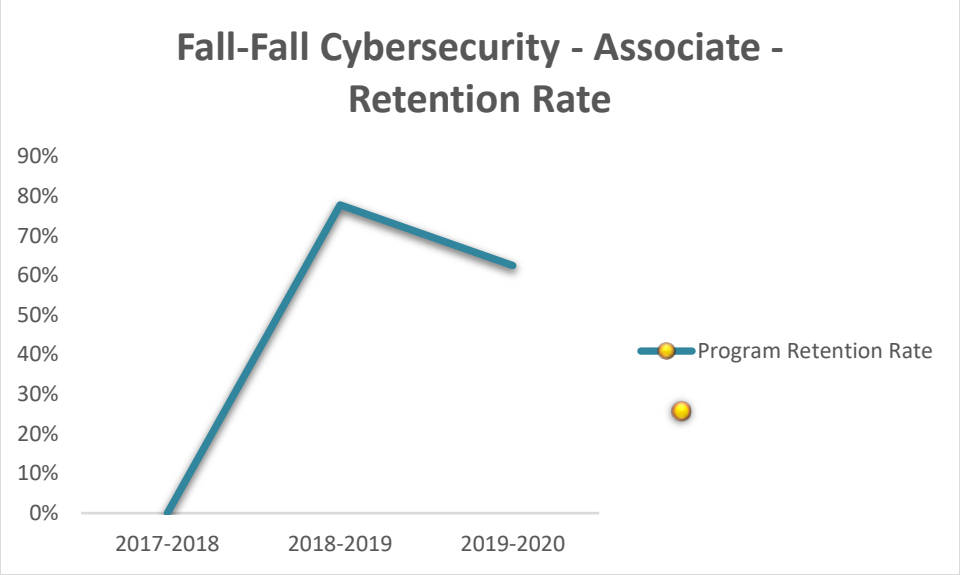
Outcome #2: Retention

Baseline: 46.8 % (*Average of last three years – 2017-18; 2018-19; 2019-20; fall-to-fall program retention*)
Standard: 50 %
Target: 55 %

2020-2021 Action / Strategy Items: *(carried forward outcomes)*

Item #	**Action / Strategy Items:** *(Actions / strategies identified in the 2019-20 program outcome assessment follow-up.)*	**Results / Use of Results:** *(Provide results of the action / strategy identified. Was the action / strategy successful? How do you know?)*
1	Implement more live and recorded lectures in online courses.	Live lectures and recordings were added to more online courses. In some cases, they were added to hybrid courses too. Retention rates have improved as enrollment is continually increasing.

Year (Fall to Fall)	Program Fall Enrollment Cohort	Program Completers	Program Retained	Program Stop Outs	Program Transfers	Program Retention Rate
Fall 2017-Fall 2018	2	0	0	0	2	0.0%
Fall 2018-Fall 2019	9	2	5	2	0	77.8%
Fall 2019-Fall 2020	16	2	8	4	2	62.5%



Provide narrative for analysis of program retention data. *(Based on the data, provide a narrative of your analysis of fall-to-fall retention. Indicate factors that may have affected your retention. State any changes you plan to make to improve retention.)*

There was a massive increase from 2017-2018 to 2018-2019, from 0% to 78%. Some of the 2018-2019 students transferred from Network Management because both programs have similar courses and Cybersecurity is experiencing more demand. From 2018-2019 to 2019-2020, there was a drop from 78% to 63%. More cybersecurity internships that provide full-time employment after completion of the program may have a positive impact on retention. The program lead instructor will work towards building relationships with industry that can support such internships.

Provide narrative for analysis of program retention standard/target. *(Identify standard and target. Standard is the acceptable performance, which must be higher than the baseline; Target is the desired performance, which must be higher than the standard.)*

New program retention standard and target was set based on the three-year baseline data from 2017-18, 2018-19, and 2019-20 fall to fall retention.

The standard has been set at 50 % and the target at 55 %.

Identify Retention Action Items
(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	**Action Items** *(Identify action items as a result of your program outcome assessment.)*	**Target Date** *(Identify your projected target date for completion of action items.)*	**Assessment of Action Items** *(How will you assess the results of action items?)*

1	Modify the cyber security program and differentiate it from the network management.	FALL2021	Program advisor will monitor enrollment growth, retention, and reasons for withdrawals to determine the enrollment ratio required to overcome student attrition that negatively impacts retention rates.

Outcome #3: Program Success Rate (all delivery methods)
(Duplicated based on number of courses taken by students in the program.) (Program Success Rate tab)

Baseline: 85 **%** (*Average program success students for the last three years – 2017-18; 2018-19; 2019-20*)
Standard: 88 %
Target: 90 **%**

Academic Year Fall, Spring, Summer	Program Enrolled Students	Program Success Students	Program Success Rate
2017-2018	26	24	92%
2018-2019	57	45	79%
2019-2020	101	85	84%

Provide narrative for analysis of student success in program courses. *(Are students more successful in program courses in face-to-face, online, hybrid, or blended methods of course delivery? Do you plan to make any changes to course offerings based upon your analysis of the data?)*

In 2017-2018 program success rate was 92%. In 2018-2019 program success rate was 79%. In 2019-2020 program success rate was 84%. There were 8 students in Spring 2019 in the face-to-face delivery method that yielded 100% success rate. In Fall 2019, there were 7 students that yielded 88% success rate in the blended delivery method. In Spring 2020, there were 14 students that yielded 100% success rate in the blended delivery method. In Fall 2017-Spring 2018, there were a total of 9 students that yielded 82% average success rate in the hybrid delivery method. In Fall 2018-Spring 2019, there were a total of 14 students that yielded 78% average success rate in the hybrid deliver method. In Fall 2019-Spring 2020, there were 12 students that yielded 75% average success rate in the hybrid delivery method. The average internet success rate was 83% for Fall 2017 – Summer 2020. Based on the results, the current offerings will remain the same.

Provide narrative for analysis of student success in program courses standard/target. *(Identify standard and target. Standard is the acceptable performance, which must be higher than the baseline; Target is the desired performance, which must be higher than the standard.)*

New program success rate standard and target was set based on the three-year baseline data from 2017-18, 2018-19, and 2019-20.

The standard has been set at 88% and the target at 90%.

Identify Student Success in Program Courses Action Items
(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	**Action Items** *(Identify action items as a result of your program outcome assessment.)*	**Target Date** *(Identify your projected target date for completion of action items.)*	**Assessment of Action Items** *(How will you assess the results of action items?)*
1	Monitor the program course success rate.	Fall2021	Evaluate the course delivery methods to compare which methods work better for students.

Outcome #4: Licensure and Certification Passing Rates (if applicable) (NCCCS Performance Measure)

Baselines were set based upon WCC's average college performance of the measure. Standards and targets were set using WCC's performance of the NCCCS Performance Measure results and are the same as those set in the WCC Strategic Plan for Institutional Effectiveness.

Baseline: N/A % (*Average of last three years NCCCS Reports; 2018, 2019, and 2020*)
Standard: N/A %
Target: N/A %

Licensure / Certification Exam – (Title of License or Exam)

NCCCS Report	Exam Year	# Tested	# Passed	% Passing
2017	2015-16			
2018	2016-17			
2019	2017-18			
2020	2018-19			

Provide narrative for analysis of licensure / certification passing rates. *(Based on the performance measure data, provide a narrative of your analysis of licensure/certification. Are you satisfied with your program licensure or certification rates? State any changes you plan to make for continuous improvement.)*

Not applicable.

Provide narrative for analysis of licensure and certification passing rates standard/target. *(Standards and targets were set using WCC's performance of the NCCCS Performance Measure results and are the same as those set in the WCC Strategic Plan for Institutional Effectiveness.)*

Not applicable.

Identify Licensure and Certification Passing Rates Action Items
(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	**Action Items** *(Identify action items as a result of your program outcome assessment.)*	**Target Date** *(Identify your projected target date for completion of action items.)*	**Assessment of Action Items** *(How will you assess the results of action items?)*
1	Not applicable.		

Section 5: Other Assessments

In addition to SACSCOC, is there an accrediting body specifically related to the program? If so, please name the professional organization, describe the program's current status, and include the most recent date of accreditation.

Not applicable.

Analysis of other assessments. *(Have you performed other assessments to evaluate the effectiveness of your program, to include surveys, self-assessments, or other assessment instruments used to evaluate the program. If so, please explain how information collected from the(se) assessments will be used to improve the program.)*

The department periodically administers surveys to IST students to gather feedback about the best delivery methods and times of day preferences for class meetings. The program has three program learning outcomes that are representative of skill mastery of program participants; each is assessed via signature assignment during a three year cycle. The rubrics have multiple dimensions that allow assessors to isolate areas that warrant improvement action items. All instructors have open communication with students and solicit at least informal feedback about all aspects of learning; this information is used to make rapid modifications to any warranted aspect of learning. All courses have formal online course feedback surveys that are administered near the end of the semester to allow students to express their experiences that relate to all aspects of learning. At the very least, the department chair reviews the course surveys and takes actions as warranted to enhance learning. The Office of Institutional Effectiveness congregates data from advisory committees, employer, and graduate surveys and shares them with the department which in turn uses them as opportunities to take improvement actions.

Identify Other Assessment(s) Action Items *(if applicable)*
(Address program outcome assessments that fall below the established standard and/or target and additional recommendations resulting from the review.)

Item	**Action Items** *(Identify action items as a result of your program outcome assessment.)*	**Target Date** *(Identify your projected target date for completion of action items.)*	**Assessment of Action Items** *(How will you assess the results of action items?)*
1	Not applicable.		

Provide narrative for your program facility needs. If facilities are adequate, please confirm.

All seated and hybrid classes are taught in the Spruce Building on the main campus of Wayne Community College. The main classroom used is Spruce 202. The classroom has a mini data center to provide hands on experience. All classrooms in the Spruce Building are equipped with wireless Internet access, digital projectors, and instructor stations to provide opportunities for enhanced class presentations. Spruce 202 is currently used as a multipurpose room for core IT courses. The closets (Spruce 203A and 203B are used to house data center equipment; this space limits access to 1/3 of the students at a time; there is not enough space, HVAC, and electrical power to accommodate lab equipment growth to keep pace with new technologies. Space is needed for core IT infrastructure and hardware courses. Request at least 572 square feet space for a student data center learning lab. The data center should have sufficient electrical power and cooling to support equipment. Request at least 572 square feet space for a connected computer lab. This lab will support 18 student desktop computers and one instructor computer. Request a connected closet for storage that is at least 100 square feet. The closet should have electrical receptacles to charge equipment that will be secured in the closet.

Provide narrative for academic / student support services. *(Are services adequate for your program?)*

All academic and support services have open communication with faculty and there is a unified effort to provide the best service to all stakeholders. There are readily accessible channels to address any issues in maximum effort to close any adequacy gaps and ensure mission success.

Planning Objectives (2017-18; 2018-19; 2019-20 – Fiscal Year, July 1-June 30)
Provide a summary of planning objectives submitted for the last three years, including the use of results of the planning objectives in the table provided.

Summary of Planning Objectives

Planning Year (Fiscal Year – July 1-June 30)	Department	Objective(s) Submitted	Use of Results
2017-18	1) Information Systems Technology – SGD 2) Information Systems Technology 3) Information Systems Technology	1) Addition of Zbrush (24 licenses) (Approved) 2) (1)NETLAB+ VE -License -32 Pod; (2)Dell R730; (1)WS-C2960+48TC-L; (1)UPS; (1)Rack (Approved) 3) (1)ISR4321/K9; (4)Cisco NIM-16A; (4)CAB-HD8-ASYNC; (3)APC 7900; (9)Cisco ISR 4321 Sec bundle w/SEC license Bundle; (10)NIM-2T=; (9)Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image (Approved)	1) The software has been instrumental in expanding the modeling skill set of students; the software will also be used as a scupting resource in SGD 162 and SGD 214 during Fall 2018. 2) Items were purchased during the latter part of April and have not been received. Carry forward to the 2018-19 Plan to report assessment and use of results. 2018-19 Use of Assessment: At least 75% of students scored at least 70% or higher on tasks that required comprehension of concepts and techniques related to the respective technologies. The department plans to expand the

			use of the technologies and scale them out to other courses to enhance the remote learning environment. 3) Items were purchased during the latter part of April and have not been received. Carry forward to the 2018-19 Plan to report assessment and use of results. 2018-19 Use of Assessment: At least 75% of students scored at least 70% or higher on tasks that required comprehension of concepts and techniques related to the respective technologies. The department plans to expand the use of the technologies and scale them out to other courses to enhance the remote learning environment.
2018-19	1) Information Systems Technology – SGD 2) Information Systems Technology (all IST programs)	1) (7) 3D printer (Funded) 2) (2) Laptops and (2) USB cameras (Approved)	1) At least 75% of students scored at least 70% or higher on tasks that required comprehension of concepts and techniques related to 3D modeling. There seems to be anecdotal evidence the printers have enhanced the learning within and credibility of the respective 3D modeling courses. The lead instructor is exploring ways to further integrate 3D printing concepts into other facets of the respective courses. 2) The correct laptops were requested in late April 2019 and received in April 2019. However, they have not been configured by Dell. Carry forward to the 2019-20 Plan/Budget to report assessment of the objective. Carry forward to 2020-21 Plan to report assessment.
2019-20	1) Information Systems Technology	1) Request Rokoko SmartSuit Pro (class bundle that has 5 suits	1) Awaiting receipt. Unable to assess objective due to campus shut-down, stay-at-home orders. Carry forward to the

	2) Information Systems Technology	of various sizes). (Approved) 2) (9) SGD computers, with hardware that has the potential to support SGD activities. (Approved)	2020-21 Plan to report assessment. 2) Awaiting receipt. Unable to assess objective due to campus shut-down, stay-at-home orders. Carry forward to the 2020-21 Plan to report assessment.

Provide narrative for analysis of the program's / discipline's strengths, weaknesses, and opportunities.

Strengths

- On-campus and remote access labs provide students opportunity to train on software and equipment they are likely to encounter in the workforce
- Articulation agreement with ECU that provides 4-year degree completion
- Relationships with local and metro area employers provide internships and employment opportunities to students
- Administration advocates new ideas and progressive learning methods that enhance student success in the classroom and the workforce
- Administration strives to secure funding required to keep technology current
- Division has an environment that promotes decisions to be made at the lowest possible level and encourages faculty to "think big"; faculty have flexibility to quickly implement technologies and curricula to stay current with workforce needs
- Faculty routinely evaluate course content and technology to ensure they prepare students for current workforce skill requirements
- Industry-technology professional development opportunities are available to faculty
- Courses continue to be redesigned to keep up with the latest industry demand and trends
- Classes are located in a modern facility
- Course content prepares students for industry certifications

Weaknesses and Opportunities

- Space limitations will be a challenge as emerging technologies arise; however, there are projected expansion opportunities as classrooms are projected to be repurposed after entities are relocated.

Section 6: Outcomes Follow-Up and Approvals

Outcomes follow-up (year-end report) to be addressed spring semester following review year (2021-22 and 2022-23).

Review prepared and submitted by: *(Please list name(s) and titles)*

Jerome Brooks, CyberSecurity Instructor

Approvals

1. Using DocuSign (electronic signature), the Office of Institutional Effectiveness (IE) will review the Program/Service Review and Outcome Assessments when completed by the responsible program/service personnel. The Office of Institutional Effectiveness will forward the review documents to the appropriate administrator (VP/AVP) upon completion.
2. Using DocuSign (electronic signature), appropriate Division Dean, Director, or AVP is asked to review and approve the Review and Outcome Assessment.
3. Using DocuSign (electronic signature), appropriate Vice President/Associate Vice President is asked to review and approve the Review and Outcome Assessments.

Dean, Director, or AVP / Date: Tracy M. Schmeltzer 5/25/2021

IE Acceptance / Date: Dorothy Moore 5/25/2021

Administrator Approval / Date: Patty Pfeiffer 5/25/2021