Program Review Report
3.7 Academic Program Review

A thorough internal or external program review addressing all criteria in policy should be possible within a comprehensive report of ten or fewer pages. This template is provided to assist institutions in compiling the program review information, **which is to be presented to the institutional governing board prior to submission to the State Regents**. Please provide an executive summary of this review using the Program Review Executive Summary Template.

Institution Name: Oklahoma City Community College

Program Name and State Regents Code: Associate in Applied Science: Computer Science (052)

List Program Options: Computer Science - Computer Programming
Computer Science - Computer System Support
Computer Science - Web Design and Development
Computer Science - Cyber/Information Security

List Embedded Certificates included in this review:
Computer Science - Computer Networking Support Certificate
Computer Science - Computer Systems Support Certificate
Computer Science - Cyber/Information Security Certificate
Computer Science - Web Design Certificate
Computer Science - Web Development Certificate

Previous Review

Date (Year) of Last Review 2018

1. Summarize key findings from previous internal and/or external reviews of this program.

The 2018 Review included the following recommendations for the department to give the team areas to focus on for the next program review cycle.

- Hiring qualified faculty still continued to be a problem. It was decided to try and advertise the openings in more places, including online job sites, and explore other ways to encourage qualified applicants to consider OCCC and find ways of providing salaries competitive to the business job market.
- Recruitment and Promotion of the programs was an area that was recommended to be worked on. The recruitment department could communicate about planned recruitment activities that would allow faculty to be prepared for and also attend. Programs could also be promoted on local media.

- Encourage a procedure on campus to allow students to obtain materials for class by first day of class. This would help in retention of students.

- It was recommended that additional funds be allocated to hire more tutors and supplemental instructors in the Student Computer Center and to establish a system to use scheduled lab hours to have lab personnel sit in on a class at least once a year per faculty recommendation.

- It was recommended that budget allocations should continue to be made to update hardware in the classrooms and the Student Computer Center on a regular basis.

- Communication with alumni was limited to the annual graduate survey. Instead it was recommended that alumni should be contacted to find out about job placement, transfer to four-year institutions, employers, and industry demands. Alumni could also be asked to come and speak to current students at club meetings and lunch brown-bag sessions.

The 2018 Review included the following Institutional recommendations for the department.

- The department has struggled with providing artifacts for General Education Assessment because of the specific nature of the CS assessments. The department has been recommended to work with the General Education Committee to identify more artifacts for each Assessment areas and to see how the rubrics could be applied to assess Computer Science artifacts also.
- The department has been recommended to work on partnership opportunities to work with business and industry partners to encourage degrees and careers in STEM fields and allow students to get internship and employment. The program will work on various industry partnerships.

2. What developments and actions have taken place since the last review?

During the 2019-2023 Review period, the department has worked on the recommendations from the 2018 Review. Some of the recommendations still need to be worked on. A summary of the actions listed below

- The department continues its search for qualified faculty. The job postings have been made to several online and national jobsites. The department is shorthanded as the full time faculty continue to carry on the load of their own prep and also be lead instructors for courses that they may not teach but are taught by adjunct faculty. The department depends heavily on adjunct instructors for many of their specialized courses, and the programs are enriched because of the expertise and experience they provide. Fulltime faculty who are lead instructors help the adjuncts to choose textbooks, design and supplement their courses in order to maintain quality and standards across the department. Factors like degree requirements and salary continue to be factors that impede qualified applications.

- The department has continued to work with Recruitment and has hosted an also taken part in several High School visits, local career and College Preview fairs that have been in-house and off campus. Summer camps were conducted for High School and Middle school students. A Teachers workshop was also conducted in Summer 2022 to prepare high school teachers for their IT classes. The department participated in High School Counselors workshops too. Outreach Programs were also promoted through emails and on local media and social media platforms.

- The Day One Access program adopted by the College allows for students to obtain materials for class by first day of class. The department continues to work with the Bookstore and the publishers to get this available for more courses across the program.

- It was recommended that additional funds be allocated to hire more tutors and supplemental instructors in the Student Computer Center and to establish a system to use scheduled lab hours to have lab personnel sit in on a class at least once a year per faculty recommendation.

- Budget continues to be allocated for hardware updates in the classrooms and the Student Computer Center. Grant money was used to convert a classroom into a lab setting for students who are enrolled in the Computer Systems Support and Cyber Information/Security degrees and Certificate programs. This was done in efforts to emulate real world organizational setups and help the students get hands on experience with hardware and scenarios they would need to be comfortable with.

- Graduates are emailed and surveyed by the department to gain feedback on the programs and courses. We also try to get alternate emails from students that we use to keep in touch with them. We have used alumni to come back and speak to students in Cyber Club meets. Alumni are also contacted for job openings that may require a graduate degree or above.

- The department is continuing to work with the General Education Committee to identify how CS artifacts could be accepted for each of the Assessment areas and to see how the rubrics could be applied to assess Computer Science artifacts also. Discussions also include on how more assessors who are computer science literate could be included on assessment teams.

- The programs were updated to include cloud computing, scripting, data analytics, and project management. All these updates were included to keep up with workforce expectations, and advice from Advisory Board. In addition to this changes have been made to course to incorporate more hands on labs and projects and update course content.

- The department has continued its work on partnership opportunities with business and industry partners to allow students to get internships and employment. Internships are being offered at Moore Public School, Devon, Tinker, OMES, PCI and many other organizations. The department continues to work on the advice it receives from its

Advisory Board especially in areas to groom students on their sift skills, resume writing, interview etiquette and computer science experience outside class. The department continues to provide workshops on branding, mock interviews, help with resumes etc. to get students more aware of industry expectation and their responsibilities. Internships, workshops and lab modules were provided to gain experience outside classrooms. This has helped students be more confident and also be hired by local, state and government agencies with their Associate degrees.

Current Review

Date (Year) of Current Review FY 2023

Review Criteria *(Institutions should address each criterion of OSRHE policy 3.7.5 as directed below).*

A. Centrality of the Program to the Institution's Mission:

The Computer Science department believes that the continued development and implementation of the program is integral to the growth and purpose of the college. The program exists to serve the educational and career needs of the citizens and employers in the community. The Computer Science faculty have the responsibility of assuring employers that they are training potential employees who are competent, creative, eager to solve problems, and dedicated to staying current in the field. The ultimate responsibility is to assist students in growing and learning as unique individuals and competent computer professionals. The College's goal of Student success and Community enrichment is the driving force for the department. It is our belief that the community is enriched through the successful development and placement of each of our students. Through access, preparation, student and graduate success, and partnering with the community, the department strives to make a difference in the community, one student at a time, and through our programs we aspire to allow OCCC to make significant contributions to the local, state and federal workforce development.

The program prides itself in its solid core curriculum. Courses are taught at appropriate levels and care is taken to make sure that students do build on course objectives that have been worked on in pre-requisite courses. Courses are planned to build on each other for the entire degree plan so that a student has a well-rounded portfolio of skills when they graduate with the program. Hands on labs and projects that have been incorporated into our courses across the degree programs supplement the course content and add to student engagement and success. We will continue to work with Recruitment to increase awareness and interest in STEM areas, and also continue to offer workshops for K-12 students and teachers. We also proud of the partnerships we have built with our industry partners and the faith they show in us when they come to us with employment opportunities for our students. We will continue to work with hiring managers and employers to create internship and placement opportunities. Our Advisory

Board continues to volunteer and provide different workshops, sessions or even mentorships for our students.

The department is looking into making our online offerings of courses more interactive and engaging. This is not just to increase student retention and success, but also to increase student retention of course content through the program. We want to encourage more students to attempt and pass their certification exams where applicable. We will continue to work with Student Advising to help students with resources that they may need in order to foster timely successful completion. We will continue in our efforts to maintain communication with our alumni. The department is definitely trying to keep up with the constantly changing needs of workforce, but it is definitely reaching a point where the full time faculty are not being able to keep up. It is of utmost urgency and importance that we find ways to hire and retain qualified candidates.

B. Vitality of the Program:

B.1. Program Objectives and Goals:

Students will successfully complete a common core of at least one class in each of the following categories: computer applications, introductory computer course, database, computer security, and college-level math. All options must have 61 credit hours.

Program goals for student learning outcomes for the CS – AAS programs in FY 2020 – FY2024 period are listed below.
Outcome 1: Students will be able to demonstrate understanding of installation procedures in given situation (FY 2020).
Outcome 2: Students will be able to solve common system issues in a given situation (FY 2021).
Outcome 3: Students will be able to apply security measures to systems and networks in a given problem case scenario (FY 2022).
Outcome 4: Students will be able to employ scripts for purposes of automation in a given situation (FY 2023).
Outcome 5: Students will be able to manipulate stored data in a given situation (FY 2024).

B.2. Quality Indicators (including Higher Learning Commission criteria and requirements):

All students of the CS - AAS programs must take the course CS2183: Linux. Students in the program might take this class at different times in their degree and so it gives the department a holistic look at the program when we look at the results of the measures that have been administered. All students in CS2183 will be administered an assessment quiz. For each outcome, 70% of the students will have to be able to correctly demonstrate the specific measure. One outcome will be measured each year.

B.3. Minimum Productivity Indicators:

Time Frame (e.g.: 5-year span)	Enrollment	Graduates
Computer Science - Computer Programming	408	29
Computer Science - Computer System Support	90	35
Computer Science - Web Design and Development	58	10
Computer Science - Cyber/Information Security	289	125
Computer Science - Computer Networking Support Certificate	35	166
Computer Science - Computer Systems Support Certificate	24	201
Computer Science - Cyber/Information Security Certificate	69	95
Computer Science - Web Design Certificate	11	3
Computer Science - Web Development Certificate	18	15

B.4. Other Quantitative Measures:

b.4.a. Number and enrollment of courses taught exclusively for the major for each of the last five years:
List or attach list of courses

Course	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
CS-1143: Beginning Programming	327	244	275	293	268
CS-1153: Introduction to Computing Technologies	109	101	136	140	128
CS-1333: Database Management Applications	53	38	45	37	35
CS-1353: Computer Operating Systems	81	84	93	103	93
CS-1363: Digital Media Development	NA	9	NA	13	13
CS-1413: Computer Hardware	80	70	79	79	101
CS-1543: Introduction to Scripting	NA	NA	4	27	16
CS-2113: Computer Based Information Systems	222	225	173	97	118
CS-2153: Cloud Computing	41	38	43	61	61
CS-2163: Java	85	100	131	110	133
CS-2173: Oracle	5	NA	NA	NA	NA
CS-2183: Linux	55	49	68	60	54
CS-2283: Introduction to Virtualization	10	13	8	14	NA
CS-2303: Networking Technologies	41	35	39	56	28
CS-2363: C++	21	33	22	27	17

CS-2403: Computer Support Services	14	9	6	15	NA
CS-2413: Web Site Development	43	35	55	49	39
CS-2433: Digital Media Scripting	15	8	NA	NA	NA
CS-2443: SQL Server	25	32	41	30	30
CS-2453: Visual Basic	40	37	40	45	42
CS-2463: Advanced Java	37	36	38	35	30
CS-2473: Data Analytics	NA	NA	NA	NA	4
CS-2503: Server Administration	40	37	35	62	19
CS-2513: Client-Side Programming	12	13	5	22	9
CS-2563: C#	34	36	33	40	33
CS-2613: Internship	NA	NA	NA	NA	1
CS-2623: Server-Side Programming	12	13	11	13	4
CS-2713: Principles of Information Security	92	29	44	49	39
CS-2723: Web Security	60	34	35	34	44
CS-2743: Enterprise Security Management	54	27	21	27	29
CS-2763: Network Defense	47	36	34	53	39
CS-2783: Cyber Forensics	33	24	16	34	26

b.4.b. Student credit hours by course level (i.e. 1000, 2000) generated in all major courses in the degree program for five years:

Program	Degree	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Computer Science- 1000 Level Courses within Program	AS, AAS, C	2,988	2,664	2,736	2,829	2,829
Computer Science – 2000 Level Courses	AS, AAS, C	4,488	3,642	3,786	4,086	3,540
Computer Science – All Level Courses within Program	AS, AAS, C	7,476	6,306	6,522	6,915	6,369

b.4.c. Direct instructional costs for the program during the review period:

In 2021 and 2022, our Information Technology Services department installed Zoom room technology in multiple classrooms across campus with an end goal of 70+ rooms. This hybrid/Hy-Flex technology helps us offer different course modalities and allows us to meet student and employee needs by providing the opportunity for courses and meetings to be held in-person and online simultaneously. This endeavor was achieved at a total cost of

$2,393,437.41. In addition, all teaching station computers, monitors and display adapters were replaced at a total cost of $107,167.16.
The Center for Learning and Teaching developed training for this technology that began in Dec. 2021. This training is ongoing and focuses on both how to operate the technology as well as how to engage students with it in the classroom using innovative teaching strategies. We have trained 160+ faculty and staff members to date and anticipate training more in the upcoming fiscal year. At this point, all course sections now use our Learning Management System (LMS), Moodle, and we have several third-party tools available to faculty and students that foster online engagement, including Turnitin, Ally, Poll Everywhere, and VoiceThread. These recurring costs add up to approximately $338,000 per fiscal year.
Faculty are trained in these resources, and the CLT continues to work with faculty to make sure they understand best practices for how to use and implement these resources. Turnitin aids with grading and academic integrity, Ally with ensuring faculty have the tools to make their course materials Section 508 complaint, Poll Everywhere with student engagement, and VoiceThread with creating quality audio presentations and feedback for our students. Additionally, the Center for Learning and Teaching is working toward developing augmented and virtual reality resources for OCCC faculty to potentially integrate into their courses to better engage students through real-world experiences offered in a virtual environment.

b.4.d. The number of credits and credit hours generated in the program that support the general education component and other degree programs including certificates:

CS 1103 Introduction to Computers and Applications (3 credits) is a CS course that is used as a general education course in CS degrees and in multiple other programs at the College.
General Education course hours generated = 1,974 hours.

b.4.e. A roster of faculty members, faculty credentials and faculty credential institution(s). Also include the number of full time equivalent faculty in the specialized courses within the curriculum:

Faculty	**Credential (i.e. MFA, PhD)**	**Institution that granted degree**
John Goulden	Ph.D M.S. M.S. B.S. B.A.	University of Oklahoma University of Oklahoma Oklahoma City University Bethany Nazarene College Southern Nazarene University
Haifeng Ji	M.S. B.S.	University of Nebraska-Lincoln Nanjing University, China
Sara Mathew	M.A. B.A. Advanced Systems Management	University of Madras Calcutta University NIIT
Jon McHenry	Ph.D.	Walden University

	M.B.A. B.S.I.T.	Daniel Webster College ITT Technical Institute

Number of full-time equivalent faculty in the specialized courses within the curriculum: 4

b.4.f. If available, information about employment or advanced studies of graduates of the program over the past five years:

Some of the places that hired our alumni are listed below:	
Job Title	Company
IT Consultant	Santa Fe South Charter Schools
Electronic Technician	City of Oklahoma City
IT Specialist	Santa Fe Schools
Product Manager	Amshot
Security Analysis	John Rose Group
Support Technician	Dell
Budget Analyst	DOD
Computer Tech	Blanchard Public Schools
Project Manager	Farmers Insurance
OR Supply Technician	OU Children's Hospital
Technical Analyst	OU Medical
Technical Support Analysis	Apex System
Lab Assistant	Oklahoma City Community College
System Administrator	Midwest Hose

b.4.g. If available, information about the success of students from this program who transferred to other institutions:

These programs are not designed for transfer, but students often pursue computer science at four-year institutions.
We have worked and developed an articulation agreement between our AAS Cyber/Information Security Program and Capitol Technology University.
We have continued to work with OSU-IT to transfer some of our 2000 level courses to their Bachelor's degree in Information Technology.

B.5. Duplication and Demand:

In cases where program titles imply duplication, programs should be carefully compared to determine the extent of the duplication and the extent to which that duplication is unnecessary. An assessment of the demand for a program takes into account the aspirations and expectations of students, faculty, administration, and the various constituents served by the program. Demand reflects the desire of people for

what the program has to offer and the needs of individuals and society to be served by the program.

The complexity of the new program approval process allows for scrutiny into duplication of a program across the state. It is testament to the nuanced issues that is to be looked at when programs are created. The CS program options allows OCCC to offer cost effective options for students who wish to pursue a College degree that offers critical in-demand professional development and training. Statewide and federal demands are carefully looked at when courses in the programs are updated. This is where duplication ceases even when there may be slight duplication in degrees.

Program demand is addressed through an extensive analytical process of consideration that includes industry demands and student backgrounds. It looks at opportunities and barriers, market assessment and benefit to the students in terms of job placements, higher education placement in 4 year programs etc. Feedback from Advisory Board and other higher education and industry partners are sought for programmatical changes before decisions are made.

b.5.a. Describe demand from students, taking into account the profiles of applicants, enrollment, completion data, and occupational data:

The program serves a number of traditional students, reverse transfer students, co-enrolled students at OU, UCO and other higher educational institutions, concurrent high school students, industry employees, military students, and students who are seeking a career transition. The department has also created micro-credentials to encourage students to gain "small victories" and retain them on their path to degree or certificate completion.

b.5.b. Describe demand for students produced by the program, taking into account employer demands, demands for skills of graduates, and job placement data:

SOC	Description	2019 Jobs	2025 Jobs	Change (2019 - 2025)	Median Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training	Certificate available for HS or Less
15-1132	Software Developers, Applications	4,801	5,613	812	$ 40.68	Bachelor's degree	None	None	
13-1151	Training and Development Specialists	4,817	5,021	203	$ 24.97	Bachelor's degree	Less than 5 years	None	
13-1041	Compliance Officers	4,098	4,283	184	$ 26.24	Bachelor's degree	None	Moderate-term on-the-job training	

11-3021	Computer and Information Systems Managers	3,562	3,782	219	$ 51.85	Bachelor's degree	5 years or more	None	
15-1199	Computer Occupations, All Other	3,091	3,340	250	$ 37.48	Bachelor's degree	None	None	
15-1142	Network and Computer Systems Administrators	3,072	3,175	103	$ 32.97	Bachelor's degree	None	None	
15-1141	Database Administrators	1,528	1,565	36	$ 31.84	Bachelor's degree	None	None	
15-1151	Computer User Support Specialists	7,343	7,691	348	$ 21.17	Some college, no degree	None	None	Y
Source: EMSI: 2020.3									

b.5.c. Describe demand for services or intellectual property of the program, including demands in the form of grants, contracts, or consulting:

OCCC has been designated as a National Center of Academic Excellence in Cyber Defense through the academic year 2027.

OCCC was 1 of 5 colleges to participate in the CyberCorps Scholarship for Service (SFS) grant that was facilitated by WhatCom Community College (WCC). The CyberCorps Scholarship for Service (SFS) is a unique program designed to increase and strengthen the cadre of information assurance professionals that protect the government's critical information infrastructure. Scholarships were funded through grants awarded by the National Science Foundation Community College Cyber Pilot Program (C3P) to Whatcom Community College. The pilot program allowed students with bachelor's degree and/or prior military service to participate in the Cyber/Information Security AAS program.

OCCC is one of 14 Community Colleges nationwide to be awarded the Cyber Skills for All: Community Colleges Lead the Way Initiative grant. This grant is a collaboration between the American Association of Community Colleges and Microsoft and will help bolster OCCC efforts to prepare students for the digital economy. As a part of the community of practice, the department will work directly with AACC, Microsoft and other experts as they expand cyber programming as part of a locally responsive economic development strategy.

The Department offers concurrent classes to Juniors and Seniors at several area high schools. Offerings have expanded to Freshmen and Sophomores through the Early College initiative from the College.

Other services rendered to the community also include IT Advisory Board for Southeast High School, Emerson High School, UCO CS Advisory board, Career Tech Advisory Boards, InfraGard Advisory board, CAE Consortium, and others.

b.5.d. Describe indirect demands in the form of faculty and student contributions to the cultural life and well-being of the community:

OCCC has hosted InfraGard meetings, students have participated in National Cyber League Competitions, and the CAE Virtual Career Fairs.

OCCC CS students had the opportunity to obtain internships in organizations such as FBI, Oklahoma City Government, Oklahoma State Government, Moore Public Schools, Devon, PCI, and Tinker.

STEM summer camps and Scout Badge workshops were offered for Middle School students through College for Kids. An IT Immersion Camp was offered to High School students. A Teach the Teacher was conducted for High School Teachers to make them more prepared for their IT classes.

OCCC students continue to participate and be recognized while they exploit wireless cyber security at the annual National Cyber League competition. The number of students who participate have steadily continued to increase.

The department in partnership with the Center for Cyber Defense Education (CCDE) hosted a security workshop titled “A Social Side of Hack” for the OCCC community. This was conducted to raise security awareness amongst the community. This was conducted by an adjunct faculty of the department. The department has made a concerted effort to spread security awareness across the community through emails and the CCDE website.

Mock Interviews, Branding workshops and Resume writing workshops were conducted by alumni, Advisory Board members and adjuncts periodically for students.

Regular Cyber club meetings were held in order to boost more networking among students and also as a forum where guest speakers spoke about various information technology and cyber security topics.

The faculty participated in talks and career fairs to discuss career choices in eighth grade and Native American College visits. Faculty have given presentations at various local schools on career days.

Faculty and students have donated services and items to local non-profit organizations, United Way annual fundraisers, and Faculty Association fundraisers for scholarships.

b.5.e. The process of program review should address meeting demands for the program through alternative forms of delivery. Describe how the program has met these demands:

The classes are offered in various formats: Intersession, Summer, Online, On-campus Hybrid and individual-paced. Classes are offered as a mix of 8 week and 16 week formats.

Classes are conducted in High Schools for High School students to get acquainted early to College classes and also get them interested in the STEM field.

Students in the military and outside the state have been allowed to take exams using proctors.

Virtual machines have been used to allow for multiple operating systems and software in a classroom.

Videos and E-books have been used to enhance learning across classroom platforms. Class material and supplemental material are all hosted on Moodle to make material easily available for students.

Network versions of the software are purchased so that it can be shared across classrooms and labs. Students are allowed to get copies of the software required for some classes because of the educational alliance with Microsoft.

CS classrooms are shared with other departments if the need arises. Computers are usually reassigned to other non-CS areas when they are recycled out of CS classrooms and labs.

B.6. Effective Use of Resources:

(Resources include financial support (state funds, grants and contracts, private funds, student financial aid); library collections; facilities including laboratory and computer equipment; support services, appropriate use of technology in the instructional design and delivery processes, and the human resources of faculty and staff).

Average Credit hours:
Credit hours major courses - 1000 level
2017 – 6,072
2016 – 6,552
2015 – 6,330
2014 – 6,087
2013 – 6,972
Credit hours major courses - 2000 level
2017 – 4,227

2016 – 4,113
2015 – 3,540
2014 – 3,480
2013 – 3,786

Courses taught - 1000 level
2017 - 52
2016 - 49
2015 - 47
2014 - 49
2013 - 48
Courses taught - 2000 level
2017 - 75
2016 - 68
2015 - 70
2014 - 67
2013 - 77
Five full-time professors provide instruction in the curriculum. There are unfilled positions because of the retirements. Professors teach 15 credit hours as a full-time load and may teach additional classes as adjuncts.
Approximately fifteen adjunct instructors are used each semester in the Computer Science department with each teaching one to two classes. The maximum that an adjunct can teach is three classes. Their credentials can be found in the Division of Information Technology office
The full-time faculty serve as lead teachers and mentors for the adjuncts.
There are 7 computer-equipped classrooms used by the CS Department.
A Student Computer Center with 120 computers is available for all OCCC students. For CS students, there are 2 lab assistants and 1 technician/lab assistant. 1 federal work student and 5 tutors are also available.
There are also a Cyber-Security lab, Network lab, and Testing Center in addition to the Student Computer Center

Recommendation(s)

A. Recommendation for the Program (3.7.7.A.4):

- ☒ Maintain the program at the current level.
- ☐ Continue the program with modifications as noted below and detailed in the comment section below.
  - ☐ Expand the program
  - ☐ Reduce program in size or scope
  - ☐ Merge or consolidate program
  - ☐ Reorganize program/curricular modifications*
- ☐ Suspend program to allow an opportunity to consider recommendations detailed in the section below*
- ☐ Delete program*

**Requires a Request for Degree Program Modification and governing board approval.*

B. Specific comments regarding recommendations:

(Provide detailed recommendations for the program as a result of this thorough review and how these recommendations will be implemented, as well as the timeline for key elements. Recommendations to suspend or modify the program should include measurable goals and a timeline for monitoring the program in one-, two-, three-, or four-year increments)

Recommendations	Implementation Plan	Target Date
Hire new faculty.	We will need new faculty as we plan to enhance current programs to offer new topics in/as classes to maintain program relevance to current industry demands and expectations.	As needed
Find ways to include CS artifacts for general education assessment.	This will have to be implemented after dialogues with the CS team and the General Education team. We continue to have discussions on the assessment of CS artifacts to prove relevance to the multiple Gen Ed assessment categories	By next Program Review
Include opportunities to cultivate and increase student engagement and foster workforce development.	Continue to keep the degree paths relevant to workforce needs, and host activities to foster workforce readiness Include practices inside and outside curriculum to encourage student engagement Include practices inside and outside curriculum to encourage students to take industry certification exams.	By next Program Review
Increase communication with Alumni	Find ways to increase reach to and encourage engagement with alumni. Find ways to use alumni to help strengthen the program.	By next Program Review

Add additional rows as necessary

Department/

Program Head _____*Sara Mathew*_____ Date: **12/22/2022**

(Signature)

Dean _____ Date: Click here to enter a date.

(Signature)

Chief
Academic

Officer _____ Date: Click here to enter a date.
(Signature)

President _____ Date: Click here to enter a date.
(Signature)