

Program Information Report

Science, Computer Technology, Engineering & Math

Cybersecurity Operations (CVCSCO)**Advanced Certificate****Program Effective Term: Fall 2021****High Demand Occupation High Skill Occupation High Wage Occupation**

In this program, students will develop the knowledge and skills associated with monitoring, detecting, investigating, analyzing and responding to security events, thus protecting systems and organizations from cybersecurity risks, threats and vulnerabilities. Students will prepare for the Cisco CCNA Cyber Operations Associate Examination.

Program Admission Requirements:

Completion of the Principles of Cybersecurity Advanced Certificate

Major/Area Requirements		(13 credits)
CNT 290	Network Forensics	4
CPS 141	Introduction to Programming Using Python	4
CSS 225	Cybersecurity Operations - CCNA Cyber Ops	4
CSS 296	Cybersecurity Operations Certification Preparation	1

Minimum Credits Required for the Program:**13**

Washtenaw Community College

PROGRAM PROPOSAL FORM

Preliminary Approval – Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.

Final Approval – Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name:	<u>Cybersecurity Operations</u>	Program Code:
Division and Department:	<u>BCT/CSIT</u>	<u>CVCSO</u>
Type of Award:	<input type="checkbox"/> AA <input type="checkbox"/> AS <input type="checkbox"/> AAS <input type="checkbox"/> Cert. <input checked="" type="checkbox"/> Adv. Cert. <input type="checkbox"/> Post-Assoc. Cert. <input type="checkbox"/> Cert. of Comp.	
Effective Term/Year:	<u>Fall 2021</u>	CIP Code:
Initiator:	<u>Cyndi Millns</u>	<u>43.0404</u>
Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program.	Purpose: Expand opportunities for students to earn certificates in the networking and cybersecurity area by creating mini certificates that support the associate's degree in Cybersecurity. This certificate is the last in the nested certificates: Computer Networking Academy I Principles of Cybersecurity Cybersecurity Operations All courses in these certificates are a part of the Cybersecurity associate's degree program. To provide students with an opportunity to earn an advanced level cybersecurity certificate, as the industry need continues to grow for cybersecurity professionals. Capstone Goals: Students will demonstrate their knowledge of concepts and principles learned in the pre-requisite courses as it relates to the applicable industry certification exam, CCNA Cyber Operations Associate.	
Need Need for the program with evidence to support the stated need.	High demand, high skill and high wage program. Allows individuals with some experience to earn a certificate to advance their knowledge.	

Program Outcomes/Assessment	Outcomes	Assessment method
State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program.	1. Demonstrate the knowledge and skills required to monitor and analyze network traffic, host-based attacks and network intrusions.	1. Cybersecurity Operations Preparation exam
Include assessment methods that will be used to determine the effectiveness of the program.	2. Demonstrate test-taking strategies that will prepare the student for the Cisco CCNA Cyber Operations Associate Examination.	2. Cybersecurity Operations Preparation exam

Curriculum List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list. Associate degree programs must provide a semester by semester program layout.	<table> <tr> <td>CPS 141</td> <td>Python</td> <td>4 credits</td> </tr> <tr> <td>CSS 225</td> <td>Cyber Operations</td> <td>4 credits</td> </tr> <tr> <td>CNT 290</td> <td>Network Forensics</td> <td>4 credits</td> </tr> <tr> <td>CSS 296</td> <td>Adv. Cyber Operations Cert Prep</td> <td>1 credit</td> </tr> <tr> <td colspan="2">Total Credits</td> <td>13 credits</td> </tr> </table>			CPS 141	Python	4 credits	CSS 225	Cyber Operations	4 credits	CNT 290	Network Forensics	4 credits	CSS 296	Adv. Cyber Operations Cert Prep	1 credit	Total Credits		13 credits
CPS 141	Python	4 credits																
CSS 225	Cyber Operations	4 credits																
CNT 290	Network Forensics	4 credits																
CSS 296	Adv. Cyber Operations Cert Prep	1 credit																
Total Credits		13 credits																
Budget Specify program costs in the following areas, per academic year:		START-UP COSTS	ONGOING COSTS															
	Faculty	\$.	\$.															
	Training/Travel	.	.															
	Materials/Resources	.	.															
	Facilities/Equipment	.	.															
	Other	.	.															
	TOTALS:	\$ 0 .00	\$ 0 .00															
Program Description for Catalog and Web site	In this program, students will develop the knowledge and skills associated with monitoring, detecting, investigating, analyzing and responding to security events, thus protecting systems and organizations from cybersecurity risks, threats and vulnerabilities. Students will prepare for the Cisco CCNA Cyber Operations Associate Examination.																	
Program Information	Accreditation/Licensure – n/a Advisors – Sandro Tuccinardi, Division Advisor Cyndi Millns, Professional Faculty Advisory Committee - Admission requirements – Completion of Principles of Cybersecurity Advanced Certificate Articulation agreements – n/a Continuing eligibility requirements – n/a																	

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
Demonstrate the knowledge and skills required to monitor and analyze network traffic, host-based attacks and network intrusions.	Industry Certification Preparation Exam	CSS 296	All sections	All students
Demonstrate test-taking strategies that will prepare the student for the Cisco CCNA Cyber Operations Associate Examination.	Industry Certification Preparation Exam	CSS 296	All sections	All students

Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally-developed rubric, external evaluation, other). Attach the rubric.

Industry-developed certification exam

2. Indicate the standard of success to be used for this assessment.

70% of students will score 70% or better on the preparation certification exam.

3. Indicate who will score and analyze the data.

The exam will be automatically graded by the Test Preparation Tool. The results will be analyzed by our full-time faculty.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	Cyndi Millns	<i>Cyndi Millns</i>	1/5/2021
Dean	Eva Samulski	<i>Eva Samulski</i>	1/5/2021
Curriculum Committee Chair	Lisa Veasey	<i>Lisa Veasey</i>	2/8/21
<p>Please submit completed form to the Office of Curriculum and Assessment (SC 257). Once reviewed by the appropriate faculty committees, we will secure the signature of the VPI and President.</p>			
Vice President for Instruction <input type="checkbox"/> Approved for Development <input type="checkbox"/> Final Approval	Kimberly Hurns	<i>Kimberly Hurns</i>	2/12/2021
President	Rose Bellanca	<i>Rose B. Bellanca</i>	2/18/21
Board Approval			3/30/21