



DEPARTMENT OF
HIGHER EDUCATION &
WORKFORCE DEVELOPMENT

New Program Report

Date Submitted:

04/26/2021

Institution

Ozarks Technical Community College

Site Information

Implementation Date:

8/2/2021 12:00:00 AM

Added Site(s):

Selected Site(s):

Ozarks Technical Community College, 1001 E. Chestnut Expressway, Springfield, MO, 65802

CIP Information

CIP Code:

111003

CIP Description:

A program that prepares individuals to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. Includes instruction in computer architecture, programming, and systems analysis; networking; telecommunications; cryptography; security system design; applicable law and regulations; risk assessment and policy analysis; contingency planning; user access issues; investigation techniques; and troubleshooting.

CIP Program Title:

Computer and Information Systems Security/Information Assurance

Institution Program Title:

Cybersecurity

Degree Level/Type

Degree Level:

Associate Degree

Degree Type:

Associate in Applied Science

Options Added:

Collaborative Program:

N

Mode of Delivery

Current Mode of Delivery

Classroom

Student Preparation

Special Admissions Procedure or Student Qualifications required:

No special procedures or qualifications will be required.



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Specific Population Characteristics to be served:

n/a

Faculty Characteristics

Special Requirements for Assignment of Teaching for this Degree/Certificate:

An earned Associate of Applied Science degree in Cybersecurity or 3 to 5 years of related industry experience.

Estimate Percentage of Credit Hours that will be assigned to full time faculty:

It is estimated 75% of the credit hours will be assigned to full time faculty.

Expectations for professional activities, special student contact, teaching/learning innovation:

Faculty members are required to document at least 20 hours of professional development on an annual basis. Faculty will assist in student advisement who have designated this as their degree option.

Student Enrollment Projections Year One-Five

Year	Full Time	Part Time	Number of Graduates
Year 1	15	6	
Year 2	20	8	
Year 3	27	10	20
Year 4	34	12	
Year 5	50	18	28

Percentage Statement:

85.00

Program Accreditation

Institutional Plans for Accreditation:

There are no plans at this time to see specialized accreditation. However, the program will partner with Cisco, EC Council, Palo Alto, VMware, Ed Hat and CompTIA.

Program Structure

Total Credits:

60

Residency Requirements:

15 of the last 30 credit hours.

General Education Total Credits:

16

Major Requirements Total Credits:

44

Course(s) Added

COURSE NUMBER	CREDITS	COURSE TITLE
NET 110	4	Windows Client Server
CYB 243	3	Digital Forensics



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CYB 123	3	Information Technology Security
CYB 226	3	Cybersecurity Operations
NET 108	3	Operating Systems and Software
NET 107	3	Computer and Network Hardware
CYB 290	2	Co-operative Education/Intern
CYB 223	3	Firewall Essentials
NET 114	4	Network Fundamentals
CYB 253	3	Ethical Hacking
NET 112	4	Linux Operating System
TEC 285	1	Occupational Seminar
NET 206	4	CCNAv7:Switching, Routing and Wireless Essentials (SWRE)
NET 116	4	CCNAv7:Introduction to Networks

Free Elective Credits:

0

Internship or other Capstone Experience:

Completion of 30 credit hours of program specific courses and 2.0 GPA and approval of department chair.

Assurances

I certify that the program is clearly within the institution's CBHE-approved mission. The proposed new program must be consistent with the institutional mission, as well as the principal planning priorities of the public institution, as set forth in the public institution's approved plan or plan update.

I certify that the program will be offered within the proposing institution's main campus, CBHE-approved service region or CBHE-approved off-site location.

I certify that the program will not unnecessarily duplicate an existing program within the geographically applicable area.

I certify that the program will build upon existing programs and faculty expertise.

I certify that the program can be launched with minimal expense and falls within the institution's current operating budget.

I certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful. Institutions' decision to implement a program shall be based upon demand and/or need for the program in terms of meeting present and future needs of the locale, state, and nation based upon societal needs, and/or student needs.

Contact Information

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Phone: 417-447-8115

Student ID: _____	Catalog: 2021-2022 Academic Catalog and Student Handbook
Student Name: _____	Program: Cybersecurity (A.A.S.) PENDING APPROVAL FOR FALL 2021
Navigator Name: _____	

Cybersecurity (A.A.S.) PENDING APPROVAL FOR FALL 2021

A.A.S. Degree: 60 Hours

The Associate of Applied Science (AAS) in Cybersecurity program helps students obtain the knowledge needed for careers in cybersecurity. Students receive a well-rounded experience in basic networking fundamentals and advanced aspects of cybersecurity. The cybersecurity AAS degree covers topical areas that deal with a study of data communication fundamentals, partial foundation of the Cisco CCNA curriculum, firewall essentials, basic cyber operations, digital forensics and security threat assessment. This program also provides the foundation for the following industry recognized certifications: CompTIA A+, CompTIA Network+, CompTIA Linux+, CompTIA Security+, partial foundation for Cisco CCNA, and EC-Council CHFI and CEH.

Cyber Security Program Requirements - 44 Credit Hours

Course Name	Credits:	Semester Completed	Grade	CORE 42
CYB-123 Information Technology Security <i>Prerequisite(s):</i> Grade of "C" or better in NET 112 and NET 114.	Credits: 3			
CYB-223 Firewall Essentials <i>Prerequisite(s):</i> Grade of "C" or better in CYB 123.	Credits: 3			
CYB-226 Cybersecurity Operations <i>Prerequisite(s):</i> Grade of "C" or better in CYB 123.	Credits: 3			
CYB-243 Digital Forensics <i>Prerequisite(s):</i> Grade of "C" or better in CYB 223, CYB 226.	Credits: 3			
CYB-253 Ethical Hacking <i>Prerequisite(s):</i> A grade of "C" or better in CYB 223, CYB 226.	Credits: 3			
CYB-290 Co-operative Education/Intern <i>Prerequisite(s):</i> Completion of 30 credit hours and 2.0 GPA, or advisor's approval	Credits: 2			
NET-107 Computer and Network Hardware	Credits: 3			
NET-108 Operating Systems and Software	Credits: 3			
NET-110 Windows Client-Server <i>Prerequisite(s):</i> Grade of "C" or better in NET 107 and NET 108.	Credits: 4			
NET-112 The Linux Operating System <i>Prerequisite(s):</i> Grade of "C" or better in NET 107 and NET 108.	Credits: 4			
NET-114 Introduction to Networking <i>Prerequisite(s):</i> Grade of "C" or better in NET 107 and NET 108.	Credits: 4			
NET-116 CCNAv7: Introduction to Networks <i>Prerequisite(s):</i> Grade of "C" or better in NET 107 and NET 108.	Credits: 4			
NET-206 CCNAv7: Switching, Routing and Wireless Essentials (SRWE) <i>Prerequisite(s):</i> Grade of "C" or better in NET 116.	Credits: 4			
TEC-285 Occupational Seminar <i>Prerequisite(s):</i> Minimum of 30 hours toward degree program or advisor's approval.	Credits: 1			

General Education Requirements - 16 Credit Hours

The Missouri Department of Higher Education has identified a common set of general education courses that have been adopted statewide. These courses are called the "CORE 42." CORE 42 courses are **guaranteed** to transfer to any Missouri public college or university to satisfy general education requirements.

Courses in knowledge areas below, designated with the CORE 42 logo indicates courses in that area have been evaluated and provided a MOTR number for transfer to all Missouri public institutions of higher education.

Courses that do not have this designation may still transfer to public and private colleges and universities in Missouri and elsewhere, but students are encouraged to check the transfer equivalency website of the institution to which they plan to transfer to confirm.

Please refer to the MDHE Core Transfer Curriculum for detailed information on CORE 42 courses.

Mathematical Sciences - 3 Credit Hours

Course Name	Credits:	Semester Completed	Grade	CORE 42

TEC-108 Applied Technical Mathematics	Credits: 3			
MTH-110 Intermediate Algebra	Credits: 4			
MTH-128 Contemporary Mathematics	Credits: 3			
MTH-128S Cont Mathematics with Support	Credits: 4			
MTH-130 College Algebra	Credits: 3			
MTH-130S College Algebra With Support	Credits: 4			
MTH-138 Pre-Calculus Mathematics <i>Prerequisite(s):</i> Grade of "B" or better in MTH 110 or satisfactory score on the ACT.	Credits: 5			
or higher				

Written Communications - 3 Credit Hours



Course Name	Credits:	Semester Completed	Grade	CORE 42
ENG-100 Composition I With Support	Credits: 5			
ENG-101 Composition I	Credits: 3			
ENG-102 Composition II <i>Prerequisite(s):</i> ENG 100 or ENG 101.	Credits: 3			
ENG-150 Technical Writing <i>Prerequisite(s):</i> ENG 100 or ENG 101.	Credits: 3			

Oral Communications - 3 Credit Hours



Course Name	Credits:	Semester Completed	Grade	CORE 42
COM-100 Introduction to Communication	Credits: 3			
COM-105 Public Speaking	Credits: 3			
COM-200 Interpersonal Communication <i>Prerequisite(s):</i> Grade of "C" or better in ENG 100 or ENG 101.	Credits: 3			

Natural Sciences - 4 Credit Hours

Course Name	Credits:	Semester Completed	Grade	CORE 42
TES-140 Technical Physics <i>Prerequisite(s):</i> Grade of "C" or better in TEC 108 or higher	Credits: 4			
BCS-115 Survey of A & P	Credits: 3			
BCS-132 Allied Health Nutrition	Credits: 3			
BCS-165 Human Anatomy	Credits: 4			
BCS-210 Pathophysiology <i>Prerequisite(s):</i> Grade of "C" or better in BCS 165 and BCS 200 and BCS 205.	Credits: 3			
BIO-100 Life Science	Credits: 4			
BIO-105 Environmental Science	Credits: 4			
BIO-135 Nutrition for Living	Credits: 3			
BIO-142 Essential Biology	Credits: 3			
BIO-160 General Biology I	Credits: 5			
CHM-101 Introductory Chemistry	Credits: 4			
CHM-160 General Chemistry I <i>Prerequisite(s):</i> Grade of "C" or better in MTH 110 or higher, or satisfactory score on the ACT.	Credits: 4			
PHY-105 Introduction to Physics <i>Prerequisite(s):</i> Knowledge of algebra, scatter plot graphing, slope and equation of the line, scientific notation, and unit conversions is recommended.	Credits: 4			
PHY-110 Introduction to Geology	Credits: 4			

PHY-115 Introduction to Astronomy	Credits: 4			
PHY-120 General Physics I <i>Prerequisite(s):</i> Grade of "C" or better in MTH 130 or equivalent (MTH 131 recommended).	Credits: 4			
PHY-220 Physics Engrs & Scientists I <i>Prerequisite(s):</i> Grade of "C" or better in MTH 140.	Credits: 5			
CHM 160 CHM-160 General Chemistry I Credits: 4				
and				
CHM-161 General Chemistry I Lab <i>Prerequisite(s):</i> Grade of "C" or better in MTH 110 or higher, or satisfactory score on the ACT.	Credits: 1			

Social and Behavioral Sciences - 3 Credit Hours



Course Name	Credits:	Semester Completed	Grade	CORE 42
HST-120 U.S. History I: to 1865	Credits: 3			
HST-130 U.S. History II: 1865-Present	Credits: 3			
PLS-101 American Government and Politics	Credits: 3			

Notes: