CSIT 146: INTRODUCTION TO CYBERSECURITY

1. Course Information

Subject
CSIT - Computer Science/ Information Technology

Course Number
146

School
Science, Technology, Engineering, Mathematics

Course Title
Introduction to Cybersecurity

2. Hours

Semester Hours
3

Lecture
3

Lab
0

Practicum
0

3. Catalog Description

For display in the online catalog
This introductory course focuses on the importance cybersecurity, cybersecurity principles, and the impact technology has in the field of security. The course will cover legal and ethical concerns, capabilities and limitations of communications, history, current methodology, system operating environments, existing and emerging security technology, security policies, and the growing need for cybersecurity. As an introduction course, students will enter with various degrees of cybersecurity knowledge and will be expected to improve their knowledge of professional cybersecurity practice. This course will focus on building student's knowledge base of cybersecurity, recognize the fundamentals of cybersecurity, and grant hands on knowledge of cybersecurity application.

4. Requisites

Prerequisites
N/A

Corequisites
N/A

5. Course Type

Course Fee Code
3

Course Type for Perkins Reporting
vocational (approved for Perkins funding)

6. Justification

Describe the need for this course
This can be used as an elective in Computer Science/Engineering program. This course will introduce students to low level cybersecurity principles and allow interested students to explore potential enrollment in our cybersecurity focused degree programs.

7. General Education

Will the college submit this course to the statewide General Education Coordinating Committee for approval as a course, which satisfies a general education requirement?
No

If the course does not satisfy a general education requirement, which of the following does it satisfy:
Elective

8. Consistency with the Vision and Mission Statements, the Academic Master Plan, and the strategic initiatives of the College

Please describe how this course is consistent with Ocean County College's current Vision Statement, Mission Statement, Academic Master Plan, and the strategic initiatives of the College:

	Add item
1	Demonstrating the college's commitment to offer comprehensive educational programs that develop intentional learners of all ages. (Mission Statement)
2	Seeking to ensure that students will thrive in an increasingly diverse and complex world. (Vision Statement)
3	Preparing students for successful transfer to other educational institutions and/or entrance into the workforce. (Academic Master Plan)
4	Seeking to empower students through the mastery of intellectual and Practical Skills. (Academic Master Plan)
5	Challenging students to transfer information into knowledge and knowledge into action. (Academic Master Plan)

9. Related Courses at Other Institutions

Comparable Courses at NJ Community Colleges
Institution
Brookdale CC

Course Title
Introduction to Security

Course Number
NETW-107-DE01B

Number of Credits
3

Institution
Camden County College

Course Title
Computer and Network Security

Course Number
CST-204

Number of Credits
3

Institution
Hudson County CC

Course Title
Cybersecurity

Course Number
CSC-232

Number of Credits

3

Institution

Mercer County CC

Course Title

Network Security

Course Number

NET 240

Number of Credits

3

Transferability of Course

Georgian Court University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CSCISEC Comp. Science/Info Systems Elective, 3	Elective	

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
TECH2498 Cybersecurity , 3	Required course for B.S. in Computer Science (Cybersecurity Option)	

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
FE001 100-Level Free, 3	Elective	

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
INTR 01.266, Computers and Society, 3	Elective	

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
01:198:419, Computer Security, 4	Elective	Will not transfer

Stockton University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CSISEC computer Science & Info Systems, 4	Elective	

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Recognize basic computer network security.
CLO2	Classify basic cybersecurity policies.
CLO3	Comprehend different types of malware and spyware.
CLO4	Describe basic database security requirements and best practices.

CLO5	Properly and safely distinguish cybersecurity incident response techniques.	
CLO6	Examine current cybersecurity ethical and legal issues.	

11. Topical Outline

(include as many themes/skills as needed)

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO1	Basic Network Cybersecurity -CIA Triad -Hardware -Software Vulnerabilities -Access Control -Types of Harm -Types of Threats	Reading Class discussion Research	Exam Quiz	CL01
TO2	Cybersecurity Policies and Controls -Controls -Access Policies -Implementing Access Control -Access Control List -Encryption Terminology -Types of Encryption	Reading Class discussion Research	Exam Quiz	CL02
TO3	Types of Malware -Buffer Overflows -Potential Harm -Countermeasures -Race Conditions -Types of Malware -History of Malware	Reading Class discussion Research	Exam Quiz	CL03
TO4	Database Security -Database Overview -Security Features -Admin Responsibilities -Database Intruders	Reading Class discussion Research	Exam Quiz	CL04
TO5	Management and Incidents -Incident Response -Security Policy -Timetable and Plan Maintenance -Business Continuity Plan -Incident Response Plan -Risk Analysis	Reading Class discussion Research	Exam Quiz	CL05
TO6	Legal Issues and Ethics -Protecting Programs and Data -Copy Rights -Patents -Trade Secrets -Computer Crime -Ethical Theories	Reading Class discussion Research	Exam Quiz	CL06

12. Methods of Instruction

In the structuring of this course, what major methods of instruction will be utilized?

a. Class Lecture
b. Discussion
c. Demonstrations
d. Online presentations, online activities, and assessments.

13. General Education Goals Addressed by this Course (this section is to fulfill state requirements)

Information

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Technological Competency
Yes

Related Course Learning Outcome
CL01-CL06

Related Outline Component
TO1-TO6

Assessment of General Education Goal (Recommended but not limited to)
N/A

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Information Literacy
Yes

Related Course Learning Outcome
CL01-CL06

Related Outline Component
TO1-TO6

Assessment of General Education Goal (Recommended but not limited to)
N/A

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Independent/Critical Thinking
Yes

Related Course Learning Outcome
CL01-CL06

Related Outline Component
TO1-TO6

Assessment of General Education Goal (Recommended but not limited to)
N/A

14. Needs

Instructional Materials (text etc.):
Appropriate textbook(s) will be selected. Please contact the department for current adoptions.

Technology Needs:
N/A

Human Resource Needs (Presently Employed vs. New Faculty):
N/A

Facility Needs:

N/A

Library needs:

N/A

15. Grade Determinants

The final grade in the course will be the cumulative grade based on the following letter grades or their numerical equivalents for the course assignments and examinations

A: Excellent

B+: Very Good

B: Good

C+: Above Average

C: Average

D: Below Average

F: Failure

I: Incomplete

R: Audit

For more detailed information on the Ocean County College grading system, please see Policy #5154.

16. Board Approval

History of Board approval dates

Board of Trustees Approval Date: March 17, 2023