EXHIBIT B

EXHIBIT B

OCEAN
COUNTY COLLEGE

BOARD OF TRUSTEES

Bylaw, Policy, and Curriculum Committee Agenda Items

To: Board of Trustees

From: Office of the President

Date: February 16, 2023

The following Bylaw, Policy, and Curriculum Committee items are recommended to the Ocean County College Board of Trustees for approval at its meeting on **Thursday, February 23, 2023**:

1. Recommend approval of the following items as accepted by the College Senate at its meeting on February 2, 2023:

   a. Revised policy:

      1) Policy #5128, Students, Admission, Acceptance and Evaluation of Credits **(Exhibit B-1)**

   b. New Program Options

      1) Associate in Applied Science Degree in Computer Science/Information Technology, Cybersecurity Option **(Exhibit B-2)**
      2) Associate in Science Degree in Business Administration, Accounting Option **(Exhibit B-3)**

   c. New Courses

      1) CSIT 145, Computing Fundamentals **(Exhibit B-4)**
      2) CSIT 146, Introduction to Cybersecurity **(Exhibit B-5)**
      3) CSIT 242, Penetration Testing Fundamentals **(Exhibit B-6)**
      4) CSIT 243, Cisco Networking Fundamentals **(Exhibit B-7)**
      5) CSIT 244, Digital Forensics Fundamentals **(Exhibit B-8)**

   d. Inactivate Program

      1) Associate in Arts Degree in Global Studies **(Exhibit B-9)**

EXHIBIT B-1

POLICY

Acceptance and evaluation of credits are subject to the provisions listed below:

1. Only courses listed on an official transcript from a college or university accredited by an institutional ~~r~~accreditator recognized by the United States Department of Education (USDE) ~~egionally accredited member institutionsof the American Council on Education~~ are accepted for advanced standing subject to the following conditions:

   a. Credit will be granted for courses completed with grades of "C" or better or the equivalent numerical classification. Grades of "D" may be accepted for transfer to Ocean County College only if the student was in good academic standing (i.e., a 2.00 CUM GPA or equivalent) upon leaving the sending institution. Grades of "D" earned in the first part of a sequential course may be accepted if followed by a grade of "C" or better in the second half of the sequence.

   b. Course content must be equivalent to a corresponding course offered at Ocean County College when it is accepted for credit in lieu of a course specified as a general degree or a curriculum requirement (e.g., ENGL 151 for all degrees). A maximum of one-half of the number of semester hours required for the Associate degree may be granted for elective courses at the discretion of the Registrar.

   c. The maximum credits allowable is one-half of the total number of semester hours required for the Associate degree for the curriculum chosen.

2. Credits granted for work done while in the Armed Services:

   a. Students who have served in the U.S. Armed Forces will be -granted college credits under the conditions specified by the American Council on Education. All evaluations of credits shall be made on the basis of recommendations issued in its "Guide to the Evaluation of Educational Experiences in the Armed Services." "Request for Military Evaluation" forms will be processed only for matriculated students. For example; Veterans, active duty personnel, reservists, and National Guard members who have completed Basic Military/Recruit Training may apply to receive 3 credits for HEHP 893 in accordance with the American Council on Education guidelines. A copy of DD Form 214, Notice of Basic Eligibility, Commander's Certificate of Eligibility, or any other document that provides proof of completion of recruit training and a request for HEHP credit must be submitted to the Financial Aid Office.

   b. No credit shall be given for U.S. Armed Forces Institute courses in which the student fails to achieve a score equivalent to "C" or better.

c. Credit may be granted for courses taken under the U.S. Armed Forces Institute only when they are completed, with final examination, before the student matriculates at Ocean County College.

d. The Registrar shall not grant more than one-half of the total number of semester hours required for the Associate degree for U.S. Armed Forces Institute courses, service training courses, and Comprehensive Examination or G.E.D. Test - College Level.

e. Advance credit for Military (USAF 1) Comprehensive College Tests will be evaluated and accepted according to the following criteria:

   I. Advanced credit for USAF 1 and/or CLEP tests will be evaluated and accepted on the basis of departmental criteria and approval by the Vice President of Academic Affairs.

   II. Maximum of one-half of the total number of semester hours required for the Associate degree will be granted.

Advanced Placement (AP) examinations approved for credit by Ocean County College will be evaluated and credit awarded in accordance with Policy 5140.

ADOPTED: August 26, 1968
Revised: April 26, 1971
Revised: June 26, 1972
Revised: May 21, 1973
Revised: February 25, 1974
Revised: August 27, 1979
Revised: June 27, 1988
Revised: December 7, 1992
Revised: December 6, 1993
Revised: April 22, 1996
Revised: March 24, 1997
Revised: February 28, 2000
Revised: November 20, 2000
Revised: March 24, 2003
Revised: December 1, 2008
Revised: March 28, 2011
Revised: May 29, 2012
Revised: June 1, 2017
Revised: February 24, 2022

EXHIBIT B-2

OCEAN
COUNTY COLLEGE

BOARD OF TRUSTEES

RESOLUTION

WHEREAS, Ocean County College desires to offer a new **Cybersecurity Option** in its **Associate in Applied Science degree in Computer Science/Informational Technology**; and

WHEREAS, the Cybersecurity option is designed to provide students to apply their work experience to earning an associate degree by earning credit for work experience, military experience, trade/proprietary school preparation, apprenticeship programs, certifications, and on-the-job training; and

WHEREAS, a graduate of this program will be able to explain the current topics and techniques of cybersecurity; apply concepts, principles, and technologies of information security; and demonstrate foundational computer science and cybersecurity knowledge, and an understanding of cryptography, authentication, and intrusion detection technology; and

WHEREAS, this program prepares students for career advancement in cybersecurity;

NOW, THEREFORE, BE IT RESOLVED that the Ocean County College Board of Trustees, at its meeting on February 23, 2023, approves the Cybersecurity Option of the Associate in Applied Science Computer Science/Information Technology degree.

February 23, 2023

_____

Stephan R. Leone
Secretary

EXHIBIT B - 2

Program Change Request

Date Submitted: 12/09/22 10:49 am

Viewing: AAS.CS.CY : Computer Science/Informational Technology - Option in Cybersecurity, Associate in Applied Science

Last approved: 12/08/22 11:34 pm

Last edit: 01/26/23 4:00 pm

Changes proposed by: Susan O'Connor (soconnor)

Program Type	Option
Program Title	Computer Science/Informational Technology - Option in Cybersecurity, Associate in Applied Science
Option Title	Option in Cybersecurity
Academic School	Science, Technology, Engineering, Mathematics
Base Program	Computer Science/Information Technology, Associate in Applied Science
Effective Catalog Year	2023-2024
Program Code	AAS.CS.CY
CIP Code	110101 - Computer and Information Sciences, General.

Program Description

In Workflow

1. **STEM Academic Administrator**
2. **STEM Dean**
3. **Director of Curriculum**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. **Vice President of Academic Affairs**
7. **President's Leadership Team Chair**
8. President
9. Board of Trustees Chair
10. Academic Administrator for Programs

Approval Path

1. 01/19/23 4:29 pm Susan O'Connor (soconnor): Approved for STEM Academic Administrator
2. 01/19/23 4:29 pm Susan O'Connor (soconnor): Approved for STEM Dean
3. 01/19/23 4:29 pm Susan O'Connor (soconnor):

Approved for Director of Curriculum
4. 01/26/23 4:30 pm Heather Sciarappa (hsciarappa): Approved for Curriculum Committee Chair
5. 02/02/23 4:13 pm Robert Marchie (rmarchie): Approved for Senate Chair
6. 02/02/23 4:44 pm Joseph Konopka (jkonopka): Approved for Vice President of Academic Affairs

History

1. Dec 8, 2022 by Susan O'Connor (soconnor)

The Cybersecurity option in the Computer Science/Informational Technology, Associate in Applied Science is designed to provide students the opportunity to apply their work experience to earning an associate degree in applied science. Students can earn credit for their work experience while they prepare for career advancement. Up to 17 credits may be awarded for work experience, including military experience, trade/proprietary school preparation, apprenticeship programs, certifications, and on-the-job-training.

~~This career program prepares students for entry-level positions in a multitude of computer-related jobs.Both computer scientists and information technologists need a balance of software and hardware applications with specific courses emphasizing effective problem solving.The software development process, (composing and coordinating component of a program) requires that students construct algorithms for problem solving with appropriate documentation.This curriculum has been designed to prepare the student to meet the future needs of integration, design, deployment, and management of computing, resources and services.A graduate of the program will have a firm understanding of modern programming practices and related skills in computer information technology.The department recommends the following minimal criteria for prospective students in the Computer Science/Information Technology program:1.High school diploma or equivalent 2.Cumulative high school grade point average of C or above 3.Ranked in top half of high school graduating class 4.No developmental studies requirement The AAS in Computer Science offers the following concentrations:Information Technology Cloud Computing Data Management Networking Programming~~

Program Learning Outcomes

	Students who successfully complete this program will be able to:
PLO1	Explain the current topics and techniques of cybersecurity. ~~Describe the main functions of an operating system.~~
PLO2	Apply ~~Identify~~ the concepts, principles, ~~basic concepts of the computer system~~ and technologies of information security. ~~computer architecture.~~
PLO3	Demonstrate foundational computer science and cybersecurity knowledge. ~~Identify the major computer data, instruction and addressing formats.~~
PLO4	Demonstrate an understanding of cryptography, authentication, and intrusion detection technologies. ~~Recognize the problems involved in program portability and be able to identify the solutions to these problems.~~
~~PLO5~~	~~Describe the software life cycle.~~
PLO5 ~~PLO6~~	x ~~Identify the requirements and rationale for allocating static, dynamic and virtual memory.~~
PLO6 ~~PLO7~~	x ~~Discuss the rationale and implement both member and friend examples of operator overloading.~~

	Students who successfully complete this program will be able to:
PLO7 ~~PLO8~~	x ~~Explain the benefits of derived classes (including private, protected and public data members and methods) and implement examples of derived classes.~~
PLO8 ~~PLO9~~	x ~~Analyze (big O) sequential, binary and hashing algorithms.~~
PLO9 ~~PLO10~~	x ~~Analyze (big O) common selection, exchange and insertion sorting algorithms.~~
PLO10 ~~PLO11~~	x ~~Discuss the benefits, resource requirements and implementation of logical sorting algorithms.~~
PLO11 ~~PLO12~~	x ~~Explain the concepts, data structure and benefits involved in logically representing common data structures algorithms, such as ordered lists, stacks, queues and trees.~~
PLO12 ~~PLO13~~	x ~~Demonstrate independent thinker through mathematical, scientific and philosophical reasoning.~~
PLO13 ~~PLO14~~	x ~~Communicate effectively through reading, listening, speaking, and writing.~~
PLO14 ~~PLO15~~	x ~~Solve problems by collecting, organizing and evaluating information.~~

Learning Outcomes Display (show only)

Course Code	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12	PLO 13	PLO 14	PLO 15

Required Qualifications

Program Requirements

Plan of Study Grid

First Semester		Credit Hours
ENGL 151	English I	3
MATH 156	Introduction to Statistics	3
CSIT 165	Programming I	4
~~Humanities Gen. Ed. Requirement~~		~~3~~
~~Social Science Gen. Ed. Requirement~~		~~3~~
CSIT 144	Introduction to Operating System Using Unix	3
Humanities or Social Science Gen. Ed. Requirement		3

~~MATH 151 A Survey of Mathematics~~

~~MATH 171 Finite Mathematics~~

~~MATH 181 Introduction to Probability~~

~~or Higher than MATH 181~~

	Credit Hours	16

Second Semester

ENGL 152	English II	3
CSIT 166	Programming II	4
~~CSIT 176~~	~~Computer Organization & Architecture~~	~~3~~
~~Computer Science/Information Technology Program Electives~~		~~6~~
CSIT 185	Networking I	3
CSIT 145 - Computing Fundamentals		3
CSIT 242 - Penetration Testing Fundamentals		3
	Credit Hours	16

Third Semester

~~Computer Science/Information Technology Program Electives~~		~~6~~
~~Lab Science Gen. Ed. Requirement~~		~~4~~
~~COMM 154~~	~~Fundamentals of Public Speaking~~	~~3~~
~~Humanities or Social Science Gen. Ed. Requirement~~		~~3~~
CSIT 186	Networking II	3
CSIT 200	Information Security Fundamentals	3
Any Gen. Ed. Requirement		8
	Credit Hours	14

Fourth Semester

~~CSIT 213~~	~~Database Management~~	~~3~~
~~Computer Science/Information Technology Program Electives~~		~~6~~
CSIT 168	Introduction to Python Programming	2
CSIT 240	Ethical Hacking: Hacker Techniques and Tools	3
CSIT 243 - Cisco Networking Fundamentals (CCNA)		3
CSIT 244 - Digital Forensics Fundamentals		3
Elective(s) to make 60 credits		3
	Credit Hours	14
	Total Credit Hours	60

~~Computer Science/Information Technology Computer Science/Information Technology Electives~~

~~Course List Code Title Credit Hours Students can choose any CSIT course (CSIT 115 or higher). Students are not required to select a specific area of interest/concentration.~~

~~Business Studies Elective~~

~~ACCT 161~~	~~Principles of Accounting I~~	~~3~~
~~BUSN 131~~	~~Introduction to Business Administration~~	~~3~~
~~BUSN 134~~	~~Principles of Marketing~~	~~3~~

How does this option differ from it's base program?

Outside of the General education changes, there are 6 new courses here totaling 18 credits. They replace computer science electives and free elective. This is within the boundaries of a formal option.

Degree Requirements Breakdown

GCOM

Course Code & Title	Credits
ENGL 151	3
ENGL 152	3

GHUM

Course Code & Title	Credits
~~HUMN GEN ED REQ~~	~~3~~
X	X

GSOC

Course Code & Title	Credits
~~SOCIAL SCIENCE GEN ED REQ~~	~~3~~
X	X

GSOC/ GHUM

Course Code & Title	Credits
SOCIAL SCIENCE OR HUMN GEN ED REQ	3

GMAT/ GSCI/ GTEC

Course Code & Title	Credits
MATH ~~LAB SCIENCE~~ GEN ED REQ	3 ~~4~~

General Education

Course Code & Title	Credits
ANY GEN ED REQ ~~COMM 154~~	8 ~~3~~

Concentration Courses

Course Code & Title	Credits
CSIT 166	4
CSIT 176	3
COMP ~~COMP/IT~~ PROGRAM ELECTIVE	5 ~~18~~
CSIT 213	3

Course Code & Title	Credits
CSIT 165	4
CSIT 144 ~~BUSN ELECTIVE~~	3
CSIT 185 ~~MATH 151, 171, OR 181 OF HIGHER~~	3
CSIT 240	3
CSIT 241	3
CSIT 186	3
CSIT 200	3

Elective Courses

Course Code & Title	Credits
ELECTIVE ~~N/A (this is AAS)~~	3 ~~N/A~~

Board Approval

History of Board approval dates

NEW DECEMBER 2022 CREATED AS OPTION - Susan entered the base program and then edited the option into it. This is not actually a revision but a new option.

Reviewer Comments

Key: 104

EXHIBIT B-3

OCEAN
COUNTY COLLEGE

BOARD OF TRUSTEES

RESOLUTION

WHEREAS, Ocean County College desires to offer a new **Accounting Option** in its **Associate in Science degree in Business Administration**; and

WHEREAS, the Data Analytics option is designed to prepare students for entry-level positions in the accounting profession; and

WHEREAS, a graduate of this program will be able to analyze and journalize transactions, prepare financial statements of companies, and learn the managerial aspects involved in accounting, as well as understand the basic roles of sole proprietorships, corporations, and partnerships; and

WHEREAS, this program prepares students to transfer to a baccalaureate program in accounting;

NOW, THEREFORE, BE IT RESOLVED that the Ocean County College Board of Trustees, at its meeting on February 23, 2023, approves the Accounting Option of the Associate in Science Business Administration degree.

February 23, 2023

Stephen R. Leone
Secretary

Program Change Request

Date Submitted: 01/24/23 3:37 pm

Viewing: AS.BA.ACCT : Business Administration - Option in Accounting, Associate in Science

Last approved: 01/24/23 12:51 pm

Last edit: 01/26/23 3:47 pm

Changes proposed by: Susan O'Connor (soconnor)

Program Type	Option
Program Title	Business Administration - Option in Accounting, Associate in Science
Option Title	Option in Accounting
Academic School	Business and Social Sciences
Base Program	Business Administration, Associate in Science
Effective Catalog Year	2023-2024
Program Code	AS.BA.ACCT
CIP Code	52.0201 - 52.0201

Program Description

In Workflow

1. **BS Academic Administrator**
2. **BS Dean**
3. **Director of Curriculum**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. **Vice President of Academic Affairs**
7. **President's Leadership Team Chair**
8. President
9. Board of Trustees Chair
10. Academic Administrator for Programs

Approval Path

1. 01/24/23 3:38 pm Susan O'Connor (soconnor): Approved for BS Academic Administrator
2. 01/24/23 3:38 pm Susan O'Connor (soconnor): Approved for BS Dean
3. 01/24/23 3:39 pm Susan O'Connor (soconnor):

EXHIBIT B - 3

Approved for Director of Curriculum
4. 01/26/23 4:30 pm Heather Sciarappa (hsciarappa): Approved for Curriculum Committee Chair
5. 02/02/23 4:13 pm Robert Marchie (rmarchie): Approved for Senate Chair
6. 02/02/23 4:45 pm Joseph Konopka (jkonopka): Approved for Vice President of Academic Affairs

History

1. Jan 24, 2023 by Susan O'Connor (soconnor)

The Associate ~~AS~~ in Science (A.S.) Degree in Accounting ~~Business Administration~~ is ~~designed for those students desiring to transfer to~~ a business curriculum with an emphasis in accounting studies. ~~baccalaureate program in business.~~ This program is designed to transfer to four-year institutions and to prepare students for entry-level positions in the accounting profession. Students will be able to analyze and journalize transactions, prepare financial statements, and learn the managerial aspects involved in accounting. They will also understand the basic roles of sole proprietorships, corporations, and partnerships.
~~This degree is a broad program of study that provides students with specific skills as well as a general overview of businesstopics.~~

Program Learning Outcomes

	Students who successfully complete this program will be able to:
PLO1	Prepare and analyze financial statements of companies. ~~Analyze the concepts, principles, and operations of the private enterprise system.~~
PLO2	Prepare financial transactions and consider their impact on businesses. ~~Compare and contrast types of businesses and forms of business ownership.~~
PLO3	Solve mathematical ratios to analyze company performance. ~~Evaluate the impact of global markets and international competition.~~
PLO4	Recognize and explain ethical issues related to businesses. ~~Discuss the role of management in developing an organizational structure.~~
PLO5	Define the needs of users of accounting data and demonstrate the ability to communicate such data effectively. ~~Describe the relationship between production and consumption.~~
PLO6	Recognize situations where fraud risk exists and define preventative internal control measures to protect companies ~~Examine the marketing function and describe the concepts and processes involved in designing product strategy, promotional strategy, distribution strategy, and pricing strategy.~~
PLO7	Apply cost accounting methods to evaluate and project business performance. ~~Develop awareness of how government decisions can influence the business environment.~~
~~PLO8~~	~~Develop an awareness of factors which would enhance leadership activities.~~
~~PLO9~~	~~Creatively explore concepts and question established ideas.~~

Learning Outcomes Display (show only)

Course Code	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9
FirstSemester									
ENGL 151									
MATH 156									
ACCT 161									

Course Code	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9
STSC 150									
SecondSemester									
ENGL 152									
ACCT 162									
ECON 151									
CSIT 123									
ThirdSemester									
BUSN 210									
BUSN 271									
ECON 152									
FourthSemester									
BUSN 134									
BUSN 251									

Required Qualifications

Plan of Study Grid

First Semester		Credit Hours
ENGL 151	English I	3
~~MATH 161 or Higher~~ [1]		~~3~~
~~ECON 151~~	~~Macroeconomic Principles~~	~~3~~

~~Humanities Gen. Ed. Requirement~~		~~3~~
MATH 156	Introduction to Statistics	3
or MATH 191 OR HIGHER	or Course MATH 191 OR HIGHER Not Found	
ACCT 161	Principles of Accounting I	3
Lab Science Gen. Ed. Requirement		4
STSC 150	Student Success Seminar	2
or STSC 170	or Student Success Seminar for Business Majors	
	Credit Hours	15
Second Semester		
ENGL 152	English II	3
~~MATH 191 or Higher~~ [1]		~~3~~
~~BUSN 134~~	~~Principles of Marketing~~	~~3~~
ACCT 162	Principles of Accounting II	3
ECON 151	Macroeconomic Principles	3
CSIT 123	Integrated Office Software	3
~~ECON 152~~	~~Microeconomics Principles~~	~~3~~
Any Gen. Ed. Requirement		3
	Credit Hours	15
Third Semester		
~~ACCT 161~~	~~Principles of Accounting I~~	~~3~~
~~BUSN 251~~	~~Business Law I~~	~~3~~
~~Humanities or Social Science Gen. Ed. Requirement~~		~~3~~
~~Lab Science Gen. Ed. Requirement~~		~~4~~
~~Elective~~ [2]		~~3~~
BUSN 210	Business Communications	3
BUSN 271	Principles of Management	3
ECON 152	Microeconomics Principles	3
Accounting Program Elective(s) [1]		3
Any Gen. Ed. Requirement		2
	Credit Hours	14
Fourth Semester		
~~ACCT 162~~	~~Principles of Accounting II~~	~~3~~
~~BUSN 271~~	~~Principles of Management~~	~~3~~
~~COMM 154~~	~~Fundamentals of Public Speaking~~	~~3~~
BUSN 134	Principles of Marketing	3
BUSN 251	Business Law I	3
Accounting Program Elective(s) [1]		3
Humanities Gen. Ed. Requirement		3
Elective to meet 60 credits		3
	Credit Hours	15
	Total Credit Hours	59

1

Accounting Program Electives: include any ACCT (except ACCT 121) and/or any INTR course in the area of Accounting (with a 3 credit maximum in INTR).

[2] ~~BUSN 131 is a recommended elective.~~

How does this option differ from it's base program?

18 credits have been changed in total. Of primary importance, 9 credits have been altered in the concentration area to focus more on accounting studies versus general business studies. In addition, 9 credits have been altered to general education courses in order to align with transfer needs for accounting programs at four-year institutions.

Degree Requirements Breakdown

GCOM

Course Code & Title	Credits
ENGL 151	3
ENGL 152	3

GHUM

Course Code & Title	Credits
HUMN	3

GSOC

Course Code & Title	Credits
ECON 151 ~~SOSC~~	3

GSOC/ GHUM

Course Code & Title	Credits
ECON 152 ~~HUMN/SOSC~~	3

GMAT/ GSCI/ GTEC

Course Code & Title	Credits
Math 156 ~~MATH 161~~ or Math 191 or higher ~~Higer~~	3
CSIT 123	3
LSCI Gen ed	4

General Education

Course Code & Title	Credits
Any Gen Ed Course ~~MATH 191 or Higher~~	3
Any Gen Ed Course ~~ECON 152~~	3

Concentration Courses

Course Code & Title	Credits
BUSN 134	3
ACCT 161	3
BUSN 251	3
ACCT 162	3
BUSN 271	3
BUSN 210 ~~ECON 151~~	3

Elective Courses

Course Code & Title	Credits
STSC 150 or STSC 170	3
Elective (to 60) ~~COMM 154~~	3
Accounting Program Elective ~~(to 60)~~	6

Board Approval

History of Board approval dates

The base AS.BA program was entered into CL by soconnor and saved on 1/24/22 in order to be edited into the final option (in order to show changes). This version is the edited version which shows the edits. - SOC

Reviewer Comments

Key: 105

EXHIBIT B-4

EXHIBIT B - 4

Course Change Request

New Course Proposal

Date Submitted: 11/15/22 7:23 am

Viewing: CSIT 145 : Computing Fundamentals

Last edit: 01/26/23 4:03 pm

Changes proposed by: Joseph Brickley (jbrickley)

Programs referencing this course

AAS.CS.CY: Computer Science/Informational Technology - Option in Cybersecurity, Associate in Applied Science

Learning Outcomes Display (show only)

In Workflow

1. **STEM Academic Administrator**
2. **STEM Dean**
3. **Director of Curriculum**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. **Vice President of Academic Affairs**
7. **President's Leadership Team Chair**
8. President
9. Board of Trustees Chair
10. STEM Academic Administrator
11. Colleague

Approval Path

1. 09/26/22 10:07 am Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
2. 09/26/22 10:26 am Sylvia Riviello (sriviello): Rollback to Initiator
3. 09/26/22 11:03 am Cynthia Fallon (cfallon): Approved for STEM Academic Administrator

4. 09/26/22 12:04 pm Sylvia Riviello (sriviello): Approved for STEM Dean
5. 10/10/22 3:49 pm Susan O'Connor (soconnor): Rollback to Initiator
6. 10/18/22 9:51 am Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
7. 10/18/22 10:17 am Susan O'Connor (soconnor): Rollback to Initiator
8. 11/09/22 9:53 am Cynthia Fallon (cfallon): Rollback to Initiator
9. 11/10/22 10:02 am Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
10. 11/10/22 10:53 am Sylvia Riviello (sriviello): Rollback to Initiator
11. 12/05/22 12:10 pm Carolyn Showalter (cshowalter): Approved for STEM Academic Administrator
12. 12/08/22 12:38 pm Sylvia Riviello (sriviello): Approved for STEM Dean

13. 01/19/23 4:29 pm Susan O'Connor (soconnor): Approved for Director of Curriculum
14. 01/26/23 4:30 pm Heather Sciarappa (hsciarappa): Approved for Curriculum Committee Chair
15. 02/02/23 4:13 pm Robert Marchie (rmarchie): Approved for Senate Chair
16. 02/02/23 4:45 pm Joseph Konopka (jkonopka): Approved for Vice President of Academic Affairs

1. Course Information

Subject	CSIT - Computer Science/ Information Technology
Course Number	145
School	Science, Technology, Engineering, Mathematics
Course Title	Computing Fundamentals

2. Hours

Semester Hours	3
Lecture	3
Lab	0

EXHIBIT B - 4

Practicum 0

3. Catalog Description

For display in the online catalog

This course provides a deep understanding of hardware, operating systems, software troubleshooting, basic networking knowledge basic security concepts, mobile devices, virtualization Type 1-2, and cloud computing. Designed around the CompTIA A+ certification, this course will discuss all of the hardware components of computers, such as Central Processing Units (CPUs), Random Access Memory (RAM), Motherboards, Power Supplies, and Mass storage devices consisting of Solid-State Drives (SSDs) and Hard Drives.

4. Requisites

Prerequisites

Corequisites

5. Course Type

Course Fee Code

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

6. Justification

Describe the need for this course

Students in the cybersecurity field will benefit from understanding and knowing how to utilize current computing fundamentals to be successful in their academic and professional careers.

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	Bergen CC
Course Title	Introduction to Information Technology
Course Number	INF-101
Number of Credits	3
Comments	

Institution	Salem CC
Course Title	Introduction to Computer Hardware and Operation
Course Number	CSC131
Number of Credits	3
Comments	

Institution	Mercer County CC
Course Title	Computer Concepts/Applications
Course Number	IST-101
Number of Credits	3
Comments	

Institution	Passaic County CC
Course Title	Information Technology Fundamentals and Applications
Course Number	CIS 107
Number of Credits	3
Comments	

Transferability of Course

Georgian Court University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
EC Elective Credit, 3	Elective	

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CPS1031 Intro to Computers, 4	Required	

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CS001 100 Level Computer Science Elective, 3	Computer Science Elective	

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CST 06111, Computer Hardware and Operations, 3	Computer Science Elective	

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
01:198:110, Introduction to Computers and Their Application, 3	Computer Science Elective	Unable to determine status

Stockton University

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

If not transferable to any institution, explain:

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Assemble components based on customer requirements
CLO2	Install, configure, and maintain PCs, mobile devices, and software for end users.
CLO3	Recognize the basics of networking and security forensics.
CLO4	Properly and safely diagnose, resolve, and document common hardware and software issues.
CLO5	Apply troubleshooting skills.
CLO6	Provide appropriate customer support.
CLO7	Recognize the basics of scripting, virtualization, desktop imaging, and deployment.

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	Computer Hardware 1. Installing Motherboards and Connectors 2. Installing System Devices 3. Troubleshooting PC Hardware 4. Comparing Local Networking Hardware	Readings Labs Videos	Quiz Exam	CLO1, CLO4
TO2	Installing, Configuring, and Maintaining Operating Systems, Mobile Devices, and Applications (Computer Software) 8. Supporting Mobile Devices 10. Configuring Windows 11. Managing Windows 12. Identifying OS Types and Features 13. Supporting Windows	Readings Labs Videos	Quiz Exam	CLO2, CLO4

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	15. Managing Linux and macOS 18. Supporting Mobile Software			
TO3	Fundamental Networking and Security Techniques 5. Configuring Network Addressing and Internet Connections 6. Supporting Network Services 14. Managing Windows Networking 16. Configuring SOHO Network Security 17. Managing Security Settings	Readings Labs Videos	Quiz Exam	CLO3, CLO4
TO4	Scripting, Troubleshooting, and Ticketing 19. Using Support and Scripting Tools 20. Implementing Operational Procedures	Readings Labs Videos	Quiz Exam	CLO4, CLO5, CLO6, CLO7
TO5	Supporting Virtualization and Printers 7. Summarizing Virtualization and Cloud Concepts 9. Supporting Print Devices	Readings Labs Videos	Quiz Exam	CLO1, CLO4, CLO5

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. Labs
e. Online presentations, online activities, and assessments.

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

Information

Communication-Written and Oral

Quantitative Knowledge and Skills

Scientific Knowledge and Reasoning

Technological Competency Yes

Related Course Learning Outcome CL01-CL07

Related Outline Component T01-T05

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

N/A.

Information Literacy Yes

Related Course Learning Outcome CL01-CL07

Related Outline Component T01-T05

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

N/A.

Society and Human Behavior

Humanistic Perspective

Historical Perspective

Global and Cultural Awareness

Ethical Reasoning and Action

Independent/Critical Thinking Yes

Related Course Learning Outcome CL01-CL07

Related Outline Component T01-T05

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:

Please contact the department for current adoptions.

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

Please contact the department for current adoptions.

Facility Needs:

EXHIBIT B - 4

Please contact the department for current adoptions.

Library needs:

Please contact the department for current adoptions.

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.

Reviewer Comments

Sylvia Riviello (sriviello) (09/26/22 10:26 am): Rollback: I do not want CSIT 110 to be pre-req

Susan O'Connor (soconnor) (10/10/22 3:49 pm): Rollback: Hi: Some questions/possible edits. In the course learning outcomes section 10 (CLO3 and CL7), can you please replace the verb "understand" with a verb from the bloom's taxonomy list. The use of "understand" always ends up being a long debate about whether understanding is truly assessible. You may want to avoid all that. Second, what course number in section 1 did you think would be best for this course (do you imagine it will be freshman-100s-or sophomore - 200s- level course, for example)? I can add in the course number if you give me an idea of what you are thinking. For the mapping to the master plan/strategic plan in section 8, can you tell the reader where exactly you got each point from, since there are a few possibilities? Lastly, did you run the transfer content past Laura Wills, transfer advisor? Let me know if you want to go over any of these items - extension 2978 or email soconnor@ocean.edu. - Susan OC

Susan O'Connor (soconnor) (10/18/22 10:17 am): Rollback: Email sent with explanation on 10/18: I sent the following comments in Courseleaf (italic below). I see that some were edited

EXHIBIT B - 4

based on my comments, but I do not have the answer to the highlighted section below. For all three proposed CSIT courses, I am particularly interested in Laura Wills comments on these courses and their transferability/possible overlap with existing courses. I will also need that answer about 100/200 for all three courses. You can add your responses right to reviewer comments in CL for the course. I will return them to Joseph to respond or edit. Second, what course number in section 1 did you think would be best for this course (do you imagine it will be freshman-100s-or sophomore - 200s- level course, for example)? I can add in the course number if you give me an idea of what you are thinking. For the mapping to the master plan/strategic plan in section 8, can you tell the reader where exactly you got each point from, since there are a few possibilities? Lastly, did you run the transfer content past Laura Wills, transfer advisor? Let me know if you want to go over any of these items - extension 2978 or email soconnor@ocean.edu. - Susan OC Delete Comment Also, I am happy to review these live if you want to set up a meeting on my calendar. Sometimes, that can be easier than email and comments.

Cynthia Fallon (cfallon) (11/09/22 9:53 am): Rollback: At your request

Sylvia Riviello (sriviello) (11/10/22 10:53 am): Rollback: Same comments. Let Susan give you suggestions.

Key: 2273

Preview Bridge

EXHIBIT B-5

EXHIBIT B - 5

Course Change Request

New Course Proposal

Date Submitted: 11/15/22 7:23 am

Viewing: CSIT 146 : Introduction to Cybersecurity

Last edit: 01/26/23 4:08 pm

Changes proposed by: Joseph Brickley (jbrickley)

Learning Outcomes
Display (show only)

In Workflow

1. **STEM Academic Administrator**
2. **STEM Dean**
3. **Director of Curriculum**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. **Vice President of Academic Affairs**
7. **President's Leadership Team Chair**
8. President
9. Board of Trustees Chair
10. STEM Academic Administrator
11. Colleague

Approval Path

1. 10/18/22 9:52 am Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
2. 10/18/22 10:17 am Susan O'Connor (soconnor): Rollback to Initiator
3. 11/09/22 9:54 am Cynthia Fallon (cfallon): Rollback to Initiator

4. 11/10/22 10:03 am Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
5. 11/10/22 10:52 am Sylvia Riviello (sriviello): Rollback to Initiator
6. 12/05/22 12:12 pm Carolyn Showalter (cshowalter): Approved for STEM Academic Administrator
7. 12/08/22 12:42 pm Sylvia Riviello (sriviello): Approved for STEM Dean
8. 01/19/23 4:29 pm Susan O'Connor (soconnor): Approved for Director of Curriculum
9. 01/26/23 4:30 pm Heather Sciarappa (hsciarappa): Approved for Curriculum Committee Chair
10. 02/02/23 4:13 pm Robert Marchie (rmarchie): Approved for Senate Chair
11. 02/02/23 4:45 pm Joseph Konopka (jkonopka): Approved for Vice

EXHIBIT B - 5

President of Academic Affairs

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

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)

	Add item
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
Comments	

Institution	Camden County College
Course Title	Computer and Network Security
Course Number	CST-204
Number of Credits	3
Comments	

Institution	Hudson County CC
Course Title	Cybersecurity

EXHIBIT B - 5

Course Number	CSC-232
Number of Credits	3
Comments	

Institution	Mercer County CC
Course Title	Network Security
Course Number	NET 240
Number of Credits	3
Comments	

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	

If not transferable to any institution, explain:

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	Reading Class discussion Research	Exam Quiz	CL05

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	-Business Continuity Plan -Incident Response Plan -Risk Analysis			
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

Communication-Written and Oral

_____

Quantitative Knowledge and Skills

_____

Scientific Knowledge and Reasoning

_____

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

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

Society and Human Behavior

Humanistic Perspective

Historical Perspective

Global and Cultural Awareness

Ethical Reasoning and Action

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.

Reviewer
Comments

Susan O'Connor (soconnor) (10/18/22 10:17 am): Rollback: Email sent with explanation on 10/18: I sent the following comments in Courseleaf (italic below). I see that some were edited based on my comments, but I do not have the answer to the highlighted section below. For all three proposed CSIT courses, I am particularly interested in Laura Wills comments on these courses and their transferability/possible overlap with existing courses. I will also need that answer about 100/200 for all three courses. You can add your responses right to reviewer comments in CL for the course. I will return them to Joseph to respond or edit. Second, what course number in section 1 did you think would be best for this course (do you imagine it will be freshman-100s-or sophomore - 200s- level course, for example)? I can add in the course number if you give me an idea of what you are thinking. For the mapping to the master plan/strategic plan in section 8, can you tell the reader where exactly you got each point from, since there are a few possibilities? Lastly, did you run the transfer content past Laura Wills, transfer advisor? Let me know if you want to go over any of these items - extension 2978 or email soconnor@ocean.edu. - Susan OC Delete Comment Also, I am happy to review these live if you want to set up a meeting on my calendar. Sometimes, that can be easier than email and comments.

Cynthia Fallon (cfallon) (11/09/22 9:54 am): Rollback: At your request

Sylvia Riviello (sriviello) (11/10/22 10:52 am): Rollback: When you meet with Susan let her review these too so she can give you suggestions.

Key: 2276

Preview Bridge

EXHIBIT B-6

EXHIBIT B - 6

Course Change Request

New Course Proposal

Date Submitted: 11/10/22 10:18 am

Viewing: CSIT 242 : Penetration Testing Fundamentals

Last edit: 01/19/23 4:29 pm

Changes proposed by: Joseph Brickley (jbrickley)

Programs referencing this course

AAS.CS.CY: Computer Science/Informational Technology - Option in Cybersecurity, Associate in Applied Science

Learning Outcomes Display (show only)

In Workflow

1. STEM Academic Administrator
2. STEM Dean
3. Director of Curriculum
4. Curriculum Committee Chair
5. Senate Chair
6. Vice President of Academic Affairs
7. President's Leadership Team Chair
8. President
9. Board of Trustees Chair
10. STEM Academic Administrator
11. Colleague

Approval Path

1. 11/10/22 10:08 am Cynthia Fallon (cfallon): Rollback to Initiator
2. 12/05/22 12:15 pm Carolyn Showalter (cshowalter): Approved for STEM Academic Administrator
3. 01/19/23 3:34 pm Susan O'Connor (soconnor):

Approved for STEM Dean

4. 01/19/23 4:29 pm Susan O'Connor (soconnor): Approved for Director of Curriculum
5. 01/26/23 4:30 pm Heather Sciarappa (hsciarappa): Approved for Curriculum Committee Chair
6. 02/02/23 4:13 pm Robert Marchie (rmarchie): Approved for Senate Chair
7. 02/02/23 4:45 pm Joseph Konopka (jkonopka): Approved for Vice President of Academic Affairs

1. Course Information

Subject	CSIT - Computer Science/ Information Technology
Course Number	242
School	Science, Technology, Engineering, Mathematics
Course Title	Penetration Testing Fundamentals

2. Hours

Semester Hours	3
Lecture	3

Lab	0
Practicum	0

3. Catalog Description

For display in the online catalog

Penetration testing fundamentals assesses the most up-to-date penetration testing, vulnerability assessment, and management skills necessary to determine the resiliency of the network against attacks. It will cover fundamental methodologies, techniques, tools to identify vulnerabilities, exploit, assess security risk to networks, operating systems, and applications.

4. Requisites

Prerequisites

CSIT 165

Corequisites

CSIT 185

5. Course Type

Course Fee Code

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

6. Justification

Describe the need for this course

This course provides the required training in Cybersecurity programs of study and helps students prepare for the fundamental of penetration testing.

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:

Program-specific requirement

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 for 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	Raritan Valley CC
Course Title	Ethical Hacking and Penetration Testing
Course Number	NTWK290
Number of Credits	3
Comments	

Institution	County College of Morris
Course Title	Ethical Hacking and Systems Defense Course
Course Number	CMP243
Number of Credits	3
Comments	

Transferability of Course

Georgian Court University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
EC Elective Credit	Elective	

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
FEX 2000	Free Elective	

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CS002 200-Level Computer Science Elective 3	Computer Science Elective	

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CST 03215, Penetration Testing Fundamentals, 3	Major	

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
		Unable to determine status

Stockton University

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

If not transferable
to any institution,
explain:

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Describe the fundamentals of penetration testing and vulnerability management.
CLO2	Describe the history, development, and principles of cybersecurity.
CLO3	Identify key (vs. secondary) risk elements faced by computer network systems.
CLO4	Assess the current security landscape, including the nature of the threat, the general status of common vulnerabilities, and the likely consequences of security failures.
CLO5	Analyze security components within organizational contest: identity and access management, data protection, security operations.
CLO6	Create a plan for the third-party risk assessments.

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	1.Planning a Pen Test 2.Rules of Engagement 3.Resources and Budgets	Reading, Class discussion	Quiz/ Exam	CLO1, CLO2

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	4.Impact and Constraints 5.Support Resources			
TO2	1. Legal Groundwork 2. Scope Considerations 3. Project Strategy and Risk 4. Scope Vulnerabilities 5. Compliance-Based Assessments	Reading, Class discussion	Quiz/ Exam	CLO3
TO3	1. Scanning and Enumeration 2. Scanning and Demo 3. Packet Investigation 4.Packet Inspection Demo 5. Application and Open-Source Resources	Reading, Class discussion	Quiz/ Exam	CLO2, CLO3
TO4	1. Vulnerability Scanning 2. Vulnerability Scanning Demo 3. Target Considerations 4. Nmap Timing and Performance Options 5. Prioritization of Vulnerabilities 6. Common Attack Techniques	Reading, Class discussion	Quiz/ Exam	CLO4
TO5	1. Credential Attacks 2. Weaknesses in Specialized Systems 3. Remote Social Engineering 4. Spear Phishing Demo 5. In-Person Social Engineering 6. Network-Based Exploits 7. FTP Exploit Demo	Reading, Class discussion	Quiz/ Exam	CLO4, CLO5

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	8. Man-in-the-Middle Exploits 9. Wireless Exploits 10. Application Exploits, Part 1			
TO6	1. SQL Injection Demo 2. Application Exploits, Part 2 3. Application Exploits, Part 3 4. Cross-Site Scripting Demo 5. Code Vulnerabilities 6. Local Host Vulnerabilities 7. Privilege Escalation (Linux) 8. Privilege Escalation (Windows) 9. Misc. Privilege Escalation 10. Misc. Local Host Vulnerabilities 11. Physical Security 12. Post-Exploitation Techniques	Reading, Class discussion	Quiz/ Exam	CLO5, CLO6
TO7	1. Persistence and Stealth 2. Nmap Scoping and Output Options 3. Pen Testing Toolbox 4. Using Kali Linux 5. Scanners and Credential Tools 6. Code Cracking Tools 7. Open-Source Research Tools 8. Wireless and Web Pen	Reading, Class discussion	Quiz/ Exam	CLO5, CLO6

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	Testing Tools 9. Remote Access Tools 10. Analyzers and Mobile Pen Testing Tools			
TO8	1. Other Pen Testing Tools 2. Using Scripting in Pen Testing 3. Bash Scripting Basics 4. Bash Scripting Techniques 5. PowerShell Scripts	Reading, Class discussion	Quiz/ Exam	CLO4, CLO5, CLO6
TO9	1. Ruby Scripts 2. Python Scripts 3. Scripting Languages Comparison 4. Writing Reports 5. Post Report Activities 6. Mitigation Strategies 7. Communication	Reading, Class discussion	Quiz/ Exam	CLO4, CLO5 ,CLO6

12. Methods of Instruction

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

Class lecture, presentations, discussions, lab assignments/exercises, case studies, and projects.

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

Information

Communication-Written and Oral	Yes

Related Course Learning Outcome CLO1-CLO6

Related Outline Component TO1-TO9

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

N/A

Quantitative Knowledge and Skills

Scientific Knowledge and Reasoning

Technological Competency Yes

Related Course Learning Outcome CLO1-CLO6

Related Outline Component TO1-TO9

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

N/A

Information Literacy

Society and Human Behavior

Humanistic Perspective

Historical Perspective

Global and Cultural Awareness

Ethical Reasoning and Action

Independent/Critical Thinking	Yes
Related Course Learning Outcome	CLO1-CLO6
Related Outline Component	TO1-TO9

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.

Reviewer Comments

Cynthia Fallon (cfallon) (11/10/22 10:08 am): Rollback: Change to CSIT 185 and this should be a 200 level course. Thanks!

Susan O'Connor (soconnor) (01/19/23 3:34 pm): will be required coursework for new AAS.CS/IT.CYBER

Susan O'Connor (soconnor) (01/19/23 3:42 pm): will be required coursework for new AAS.CS/IT.CYBER

Key: 2279

Preview Bridge

EXHIBIT B-7

EXHIBIT B - 7

Course Change Request

New Course Proposal

Date Submitted: 11/30/22 10:43 am

Viewing: CSIT 243 : Cisco Networking Fundamentals

Last edit: 01/26/23 4:19 pm

Changes proposed by: Joseph Brickley (jbrickley)

Programs referencing this course

AAS.CS.CY: Computer Science/Informational Technology - Option in Cybersecurity, Associate in Applied Science

Learning Outcomes

Display (show only)

In Workflow

1. **STEM Academic Administrator**
2. **STEM Dean**
3. **Director of Curriculum**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. **Vice President of Academic Affairs**
7. **President's Leadership Team Chair**
8. President
9. Board of Trustees Chair
10. STEM Academic Administrator
11. Colleague

Approval Path

1. 10/12/22 11:11 am Cynthia Fallon (cfallon): Rollback to Initiator
2. 10/12/22 3:11 pm Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
3. 10/18/22 10:17 am Susan O'Connor (soconnor): Rollback to Initiator

4. 10/25/22 9:56 am Cynthia Fallon (cfallon): Rollback to Initiator
5. 11/09/22 9:53 am Cynthia Fallon (cfallon): Rollback to Initiator
6. 11/10/22 10:02 am Cynthia Fallon (cfallon): Approved for STEM Academic Administrator
7. 11/10/22 10:53 am Sylvia Riviello (sriviello): Rollback to Initiator
8. 11/30/22 10:37 am Cynthia Fallon (cfallon): Rollback to Initiator
9. 12/05/22 12:33 pm Carolyn Showalter (cshowalter): Approved for STEM Academic Administrator
10. 12/08/22 4:10 pm Sylvia Riviello (sriviello): Approved for STEM Dean
11. 01/19/23 4:29 pm Susan O'Connor (soconnor): Approved for Director of Curriculum
12. 01/26/23 4:30 pm Heather Sciarappa (hsciarappa): Approved for

EXHIBIT B - 7

Curriculum Committee Chair

13. 02/02/23 4:13 pm Robert Marchie (rmarchie): Approved for Senate Chair
14. 02/02/23 4:45 pm Joseph Konopka (jkonopka): Approved for Vice President of Academic Affairs

1. Course Information

Subject	CSIT - Computer Science/ Information Technology
Course Number	243
School	Science, Technology, Engineering, Mathematics
Course Title	Cisco Networking Fundamentals

2. Hours

Semester Hours	3
Lecture	3
Lab	0
Practicum	0

3. Catalog Description

For display in the online catalog

This course provides a deep dive into the Cisco network. The course introduces network fundamentals (OSI model, IPs, Subnetting, etc.), an overview of Cisco products, hardware components, how to perform Layer 1 and Layer 2 basic Cisco configurations tools, such as PuTTY, TFTP/SFTP/FTP servers, loopback plugs, and Microsoft Windows basic. After this initial

understanding (which will cover CCT routing and switching) the course will cover an introduction into basic configurations on Cisco routers work, common switching/routing issues, network/device architectures, outline basic threat defense technologies, and describing the functions and features off Cisco iOS and NX-OS.

4. Requisites

Prerequisites

Corequisites

CSIT 186

5. Course Type

Course Fee Code

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

6. Justification

Describe the need for this course

Students in the cybersecurity field will benefit from understanding and knowing how to utilize current Cisco fundamentals to be successful in their academic and professional careers.

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:

Program-specific requirement

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	Bergen CC
Course Title	Networking Fund I
Course Number	INF-164
Number of Credits	3
Comments	

Institution	Sussex County CC
Course Title	Networks and Telecommunications
Course Number	COMS 230
Number of Credits	3
Comments	

Institution	Raritan Valley CC
Course Title	NTWK 270
Course Number	Introduction to Cisco Networking
Number of Credits	3
Comments	

Institution	Raritan Valley CC
Course Title	Routing and Switching Essentials
Course Number	271
Number of Credits	3
Comments	

Institution	Mercer County CC
Course Title	Fundamentals of Computer Networks
Course Number	NET104
Number of Credits	3
Comments	

Institution	Passaic County CC
Course Title	Networking Essentials
Course Number	CIS 180
Number of Credits	3
Comments	

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
CPSX1003 Computer Science Free Elective , 3	Elective	

Monmouth University

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

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CST 09295, Advanced Networking, 3	Elective	

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
04:547:331, Networking and Internet Technology, 3	Required for Information Technology and Informatics Major	Will not transfer

Stockton University

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

If not transferable to any institution, explain:

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Understand fundamental networking concepts
CLO2	Understand network access and segmentation techniques, including VLANs
CLO3	Understand network routing and switching using Cisco Devices
CLO4	Understand various services in an IP network, including DNS and DHCP
CLO5	Understand key network security concepts, including L2, L3, and WLAN Security

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 Connectivity and Communications	Reading Class discussion Research	Quiz Exam	CLO1
TO2	Ethernet Concepts	Reading Class discussion Research	Quiz Exam	CLO1, CLO3
TO3	Communicating Between Networks	Reading Class discussion Research	Quiz Exam	CLO3

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO4	IP Addressing	Reading Class discussion Research	Quiz Exam	CLO1, CLO3, CLO4
TO5	Network Applications Communications	Reading Class discussion Research	Quiz Exam	CLO1, CLO4,
TO6	Building and Securing a Small Network	Reading Class discussion Research	Quiz Exam	CLO3, CLO4, CLO5
TO7	Switching Concepts and VLANs	Reading Class discussion Research	Quiz Exam	CLO2, CLO3
TO8	Redundant Networks	Reading Class discussion Research	Quiz Exam	CLO1, CLO4
TO9	Available and Reliable Networks	Reading Class discussion Research	Quiz Exam	CLO1, CLO4
TO10	L2 Security and WLANs	Reading Class discussion Research	Quiz Exam	CLO1, CLO2, CLO5
TO11	Routing Concepts and Configuration	Reading Class discussion Research	Quiz Exam	CLO3

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. Labs
e. Online presentations, online activities, and assessments.

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

Information

Communication-Written and Oral

Quantitative Knowledge and Skills

Scientific Knowledge and Reasoning

Technological Competency Yes

Related Course Learning Outcome CL01-CL05

Related Outline Component TO1-TO11

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

N/A

Information Literacy Yes

Related Course Learning Outcome CL01-CL05

Related Outline Component TO1-TO11

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

N/A

Society and Human Behavior

_____

Humanistic Perspective

_____

Historical Perspective

_____

Global and Cultural Awareness

_____

Ethical Reasoning and Action

_____

Independent/Critical Thinking Yes

Related Course Learning Outcome CL01-CL05

Related Outline Component TO1-TO11

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.

Reviewer Comments

Cynthia Fallon (cfallon) (10/12/22 11:11 am): Rollback: "If non-transferable; select status" should be blank for all schools.

Susan O'Connor (soconnor) (10/18/22 10:17 am): Rollback: Email sent with explanation on 10/18: I sent the following comments in Courseleaf (italic below). I see that some were edited based on my comments, but I do not have the answer to the highlighted section below. For all three proposed CSIT courses, I am particularly interested in Laura Wills comments on these courses and their transferability/possible overlap with existing courses. I will also need that answer about 100/200 for all three courses. You can add your responses right to reviewer comments in CL for the course. I will return them to Joseph to respond or edit. Second, what course number in section 1 did you think would be best for this course (do you imagine it will be freshman-100s-or sophomore - 200s- level course, for example)? I can add in the course number if you give me an idea of what you are thinking. For the mapping to the master plan/strategic plan in section 8, can you tell the reader where exactly you got each point from, since there are a few possibilities? Lastly, did you run the transfer content past Laura Wills, transfer advisor? Let me know if you want to go over any of these items - extension 2978 or email soconnor@ocean.edu. - Susan OC Delete Comment Also, I am happy to review these live

if you want to set up a meeting on my calendar. Sometimes, that can be easier than email and comments.

Cynthia Fallon (cfallon) (10/25/22 9:56 am): Rollback: At your request.

Cynthia Fallon (cfallon) (11/09/22 9:53 am): Rollback: At your request

Sylvia Riviello (sriviello) (11/10/22 10:53 am): Rollback: Same comments. Let Susan give you suggestions.

Cynthia Fallon (cfallon) (11/30/22 10:37 am): Rollback: At your request.

Susan O'Connor (soconnor) (01/19/23 3:41 pm): will be required coursework for new AAS.CS/IT.CYBER

Key: 2275

Preview Bridge

EXHIBIT B-8

EXHIBIT B - 8

Course Change Request

New Course Proposal

Date Submitted: 12/06/22 1:08 pm

Viewing: **CSIT 244 : Digital Forensics Fundamentals**

Last edit: 01/26/23 4:26 pm

Changes proposed by: Joseph Brickley (jbrickley)

Programs referencing this course

AAS.CS.CY: Computer Science/Informational Technology - Option in Cybersecurity, Associate in Applied Science

Learning Outcomes

Display (show only)

In Workflow

1. **STEM Academic Administrator**
2. **STEM Dean**
3. **Director of Curriculum**
4. **Curriculum Committee Chair**
5. **Senate Chair**
6. **Vice President of Academic Affairs**
7. **President's Leadership Team Chair**
8. President
9. Board of Trustees Chair
10. STEM Academic Administrator
11. Colleague

Approval Path

1. 12/06/22 11:07 am Cynthia Fallon (cfallon): Rollback to Initiator
2. 12/06/22 1:13 pm Carolyn Showalter (cshowalter): Approved for STEM Academic Administrator
3. 01/19/23 3:35 pm Susan O'Connor (soconnor):

EXHIBIT B - 8

Approved for STEM Dean
4. 01/19/23 4:29 pm Susan O'Connor (soconnor): Approved for Director of Curriculum
5. 01/26/23 4:30 pm Heather Sciarappa (hsciarappa): Approved for Curriculum Committee Chair
6. 02/02/23 4:14 pm Robert Marchie (rmarchie): Approved for Senate Chair
7. 02/02/23 4:45 pm Joseph Konopka (jkonopka): Approved for Vice President of Academic Affairs

1. Course Information

Subject	CSIT - Computer Science/ Information Technology
Course Number	244
School	Science, Technology, Engineering, Mathematics
Course Title	Digital Forensics Fundamentals

2. Hours

Semester Hours	3
Lecture	3

Lab	0
Practicum	0

3. Catalog Description

For display in the online catalog

This course introduces the methodology and procedures associated with digital forensic analysis. The objective of this class is to emphasize the fundamentals and importance of digital forensics. Students will learn different techniques and procedures that enable them to perform a digital investigation. This course focuses mainly on the analysis of physical storage media and volume analysis. It covers the major phases of digital investigation such as preservation, analysis and acquisition of artifacts that reside in hard disks and random-access memory.

4. Requisites

Prerequisites

CSIT 165 and CSIT 184

Corequisites

5. Course Type

Course Fee Code

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

6. Justification

Describe the need for this course

This course provides the required training in Cybersecurity programs of study and helps students prepare for the fundamental of digital forensics.

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:

Program-specific requirement

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 for 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	County College of Morris
Course Title	Digital Forensic
Course Number	CMP 160
Number of Credits	3
Comments	

Institution	Middlesex County College
Course Title	Computer Forensics
Course Number	CSC 258
Number of Credits	3
Comments	

Institution	Brookdale CC
Course Title	Computer Forensics and Investigation
Course Number	NETW 236
Number of Credits	3
Comments	

Institution	Camden County College
Course Title	Digital Forensics & Investigation
Course Number	CST 210
Number of Credits	3
Comments	

Institution	Essex County College
Course Title	Computer & Internet Forensics
Course Number	CSC 230
Number of Credits	3
Comments	

Institution	Passaic County CC
Course Title	Computer Forensics and Investigation
Course Number	CIS 289
Number of Credits	3
Comments	

Institution	Raritan Valley CC
Course Title	Privacy, Ethics, & Computer Forensics
Course Number	NTWK 274
Number of Credits	3
Comments	

Institution	Rowan College of South Jersey
Course Title	Computer Forensics
Course Number	CS 241
Number of Credits	3
Comments	

Institution	Union County College
Course Title	Digital Forensics Essentials
Course Number	CST 170
Number of Credits	3
Comments	

Transferability of Course

Georgian Court University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
EC Elective Credit, 3	Elective	

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
TECHX1003, 3	Technology Elective	

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
FE0001 100-level Free Elective 3	Elective	

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CST 03252, Foundations of Computer Forensics, 3	Required	

Rutgers - New Brunswick, Mason Gross School of the Arts

Stockton University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CSISEC, Computer Science & Info Systems Elective, 3	Computer Science Elective	

If not transferable to any institution, explain:

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Discuss the fundamental concepts of computer forensics, digital evidence, forensic readiness, identify the roles and responsibilities of a forensic investigator and review legal compliance issues in computer forensics.
CLO2	Examine the computer forensic investigation process and its phases.
CLO3	Describe different disk drives, characteristics, and logical structure, understand Windows, Linux, and Mac boot processes, and examine various file systems and formats.
CLO4	Discuss data acquisition concepts, types, format, and methodology.
CLO5	Examine various anti-forensics techniques and identify countermeasures.
CLO6	Examine various volatile and non-volatile information gathering techniques for Windows, Linux, and Mac systems, including Windows memory and registry analysis, cache, cookie, history analysis, and metadata investigation.
CLO7	Explain network forensics fundamentals, event correlation, and perform network traffic investigation.
CLO8	Appraise web server logs and perform web application forensics to detect and investigate various attacks on web applications.
CLO9	Discuss malware forensics fundamentals, list and perform different types of malware analysis.

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	1. Fundamentals of Computer Forensics 2. Digital Evidence 3. Forensic Readiness 4. Roles and	Reading, Class discussion	Quiz/ Exam	CLO1, CLO2

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	Responsibilities of a Forensic Investigator 5. Legal Compliance in Computer Forensics			
TO2	1. Forensic Investigation Process and its Importance 2. Forensic Investigation Process - Pre-investigation Phase 3. Forensic Investigation Process - Investigation Phase 4. Forensic Investigation Process - Post-investigation Phase	Reading, Class discussion	Quiz/ Exam	CLO3
TO3	1. Different Types of Disk Drives and their Characteristics 2. Logical Structure of a Disk 3. Booting Process of Windows, Linux, and Mac Operating Systems 4. File Systems of Windows, Linux, and Mac Operating Systems 5. File System Examination	Reading, Class discussion	Quiz/ Exam	CLO2, CLO3
TO4	1. Data Acquisition Fundamentals 2. Types of Data Acquisition 3. Data Acquisition Format 4. Data Acquisition Methodology	Reading, Class discussion	Quiz/ Exam	CLO4, CLO5

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	5. Anti-forensics and its Techniques 6. Anti-forensics Countermeasures			
TO5	1. Volatile and Non-Volatile Information 2. Windows Memory and Registry Analysis 3. Cache, Cookie, and History Recorded in Web Browsers 4. Windows Files and Metadata 5. Volatile and Non-Volatile Data in Linux 6. Memory Forensics 7. Mac Forensics	Reading, Class discussion	Quiz/ Exam	CLO4, CLO5
TO6	1. Network Forensics Fundamentals 2. Event Correlation Concepts and Types 3. Identify Indicators of Compromise (IoCs) from Network Logs 4. Investigate Network Traffic 5. Web Application Forensics 6. IIS and Apache Web Server Logs	Reading, Class discussion	Quiz/ Exam	CLO5, CLO6
TO7	1. Investigating Web Attacks on Windows-based Servers 2. Detect and Investigate Attacks on Web Applications	Reading, Class discussion	Quiz/ Exam	CLO6, CLO7

EXHIBIT B - 8

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
	3. Dark Web 4. Dark Web Forensics 5. Tor Browser Forensic			
TO8	1. Email Basics 2. Email Crime Investigation and its Steps 3. Malware, its Components and Distribution Methods 4. Malware Forensics Fundamentals 5. PowerShell Scripts	Reading, Class discussion	Quiz/ Exam	CLO7, CLO8, CLO6
TO9	1. Recognize Types of Malware Analysis 2. Static Malware Analysis 3. Analyze Suspicious Word Documents 4. Dynamic Malware Analysis 5. System Behavior Analysis 6. Network Behavior Analysis 7. Communication	Reading, Class discussion	Quiz/ Exam	CLO8, CLO9

12. Methods of Instruction

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

Class lecture, presentations, discussions, lab assignments/exercises, case studies and projects.

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

Information

Communication-Written and Oral Yes

Related Course Learning Outcome CLO1-CLO9

Related Outline Component TO1-TO9

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

N/A

Quantitative Knowledge and Skills

Scientific Knowledge and Reasoning

Technological Competency Yes

Related Course Learning Outcome CLO1-CLO9

Related Outline Component TO1-TO9

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

N/A

Information Literacy Yes

Related Course Learning Outcome CLO1-CLO9

Related Outline Component TO1-TO9

EXHIBIT B - 8

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

N/A

Society and Human Behavior

Humanistic Perspective

Historical Perspective

Global and Cultural Awareness

Ethical Reasoning and Action

Independent/Critical Thinking

14. Needs

Instructional Materials (text etc.):

Text: 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.

Reviewer Comments

Cynthia Fallon (cfallon) (12/06/22 11:07 am): Rollback: At your request.

Susan O'Connor (soconnor) (01/19/23 3:35 pm): will be required coursework for new AAS.CS/IT.CYBER

Susan O'Connor (soconnor) (01/19/23 3:42 pm): will be required coursework for new AAS.CS/IT.CYBER

Key: 2280

Preview Bridge

EXHIBIT B-9

Program Change Request

A deleted record cannot be edited

Program Inactivation Proposal

Date Submitted: 01/09/23 10:59 am

Viewing: AA.GLOBL : Global Studies, Associate in Arts

Last approved: 01/26/21 6:59 pm

Last edit: 01/09/23 10:59 am

Changes proposed by: Susan O'Connor (soconnor)

Catalog Pages Using this Program

Global Studies, Associate in Arts

Final Catalog	2023-2024
Rationale for Inactivation	

In Workflow

1. BS Academic Administrator
2. BS Dean
3. Director of Curriculum
4. Curriculum Committee Chair
5. Senate Chair
6. Vice President of Academic Affairs
7. President's Leadership Team Chair
8. President
9. Board of Trustees Chair
10. Academic Administrator for Programs

Approval Path

1. 01/09/23 11:04 am Susan O'Connor (soconnor): Approved for BS Academic Administrator
2. 01/09/23 1:31 pm Rosann Bar (rbar): Approved for BS Dean
3. 01/09/23 1:49 pm Susan O'Connor (soconnor):

Approved for Director of Curriculum
4. 01/12/23 3:46 pm Heather Sciarappa (hsciarappa): Approved for Curriculum Committee Chair
5. 02/02/23 4:13 pm Robert Marchie (rmarchie): Approved for Senate Chair
6. 02/02/23 4:44 pm Joseph Konopka (jkonopka): Approved for Vice President of Academic Affairs

History

1. Jan 26, 2021 by Susan O'Connor (soconnor)
2. Jan 26, 2021 by Susan O'Connor (soconnor)

"This degree has had low enrollment and students can achieve similar outcomes through the AA Liberal Arts"
Placed on hiatus in spring of 2023 for 23-24 calendar year through termination or reintroduction.

Program Type	Associate of Arts (AA)
Program Title	Global Studies, Associate in Arts
Academic School	Business and Social Sciences

Will this program exceed the programmatic mission level for the Institution?

EXHIBIT B - 9

Effective Catalog Year	2023-2024
Program Code	AA.GLOBL
CIP Code	N/A - N/A

Is this a new program announcement?

Campus(es) where the program will be offered.

Is licensure required of program graduates to gain employment?

Will the institution seek accreditation for this program?

If yes, list the accrediting organization:

List the institutions with which articulation agreements will be arranged

Program Description

The Global Studies program allows students to complete the first two years of their college education by selecting courses from a range of offerings based on their interest and transfer needs. These courses prepare students to transfer to baccalaureate programs with majors in global studies, international politics, and foreign relations.

Program Objectives

Program Goals

	Program goals
PG1	N/A

Program Learning Outcomes

	Students who successfully complete this program will be able to:
PLO1	Demonstrate an understanding of a set of cultural values and beliefs other than their own.
PLO2	Discuss the impact of modernity and technology on tradition and demographic change in lesser developed countries.
PLO3	Apply the knowledge base from many disciplines to the study of the international community.
PLO4	In their native language – and possibly in another world language – demonstrate oral and written language skills which promote global communication.
PLO5	Demonstrate an awareness of international career and study opportunities in government, business, education, and in organizations servicing international concerns.

Learning Outcomes Display (show only)

Course Code	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
FirstSemester					
ENGL 151					
POLI 101					
HIST 181					
STSC 150					
SecondSemester					
ENGL 152					
POLI 263					
COMM 154					
HIST 182					

Course Code	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
ANTH 134					
ARTS 181					
ARTS 182					
ARTS 191					
ARTS 205					
ENGL 222					
ENGL 225					
ENGL 226					
ENGL 235					
ENGL 237					
ENGL 255					
ENGL 256					
FILM 190					
GEOG 161					
GEOG 162					
HIST 185					
HIST 272					
HIST 275					
HIST 278					
HIST 280					
HUMN 200					
HUMN 201					
MUSC 194					
PHIL 192					
POLI 265					
POLI 268					
PSYC 175					
RELG 193					
RELG 293					
SOCI 181					

EXHIBIT B - 9

Course Code	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
SOCI 231					
ANTH 134					
ARTS 181					
ARTS 182					
ARTS 191					
ARTS 205					
ENGL 222					
ENGL 225					
ENGL 226					
ENGL 235					
ENGL 237					
ENGL 255					
ENGL 256					
FILM 190					
GEOG 161					
GEOG 162					
HIST 185					
HIST 272					
HIST 275					
HIST 278					
HIST 280					
HUMN 200					
HUMN 201					
MUSC 194					
PHIL 192					
POLI 263					
POLI 265					
POLI 268					
PSYC 175					
RELG 193					

Course Code	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
RELG 293					
SOCI 181					
SOCI 231					
FirstSemester					
ENGL 151					
POLI 101					
HIST 181					
STSC 150					
SecondSemester					
ENGL 152					
COMM 154					
HIST 182					

College-wide Assessment of Program Learning Outcomes

- A Graduate Exit Survey and Noel Levitz Student Satisfaction Survey are undertaken in order to gauge overall student satisfaction with college programs.

- Course Level Assessment – 40 high enrollment courses from across all academic disciplines is conduced yearly on a three year cycle. Faculty develop specific assessment instruments/plans aligned to all course learning outcomes; specific recommendations for improvements in instruction, or curriculum are made based upon the results.

- Each course is individually digitally assessed at the end of each term for faculty performance and student satisfaction

- General Education Assessment – The college has 11 General Education goals and outcomes based on the NJCCC/AOA General Education Foundation; these are assessed cyclically each semester; there is a randomized selection of courses and students for inclusion in the assessment each semester; faculty teaching selected sections are required to submit the selected assignments for the students in their sections who have also been randomly selected. A faculty and staff committee works in teams to assess the submitted works using an appropriate AAC&U Value Rubric. Recommendations for curricular improvements, faculty workshops, etc. are made based on the data.

- Program Assessment – Program Assessment is conducted for all programs on a five year cycle; the program is reviewed and assessed in its entirety through indirect and direct assessment (i.e. testing, portfolio review, and artifact collection; student and alumni surveys, focus groups), and requires a full audit of all curriculum, faculty, enrollment and graduation trends, and advisory board recommendations, concluding in specific recommendations for improvement and planning, based upon the data collected

- Retention/Graduate rates are assessed college-wide for all first-time, full time students.

- Transfer rates are assessed at three years for first time, full-time students who non-completers.

Required Qualifications

Program Requirements

Plan of Study Grid

First Semester		Credit Hours
ENGL 151	English I	3
Mathematics Gen. Ed. Requirement [1]		3
POLI 101	Global Issues	3
HIST 181	World Civilization to 1660	3
STSC 150	Student Success Seminar	2
	Credit Hours	14
Second Semester		
ENGL 152	English II	3
POLI 263	Introduction to International Relations	3
or POLI 265	or Comparative Politics and Government	
Global Studies Program Elective		3
COMM 154	Fundamentals of Public Speaking	3
HIST 182	World Civilization From 1660	3
	Credit Hours	15
Third Semester		
Global Studies Program Elective		6
Lab Science Gen. Ed. Requirement [1]		4
Social Science Gen. Ed. Requirement		3
World Language – 1st in a sequence [2]		3
	Credit Hours	16
Fourth Semester		
Global Studies Program Elective - Travel Seminar course preferred		3
Humanities Gen. Ed. Requirement		3
Mathematics or Lab Science Gen. Ed. Requirement [1]		3-4
Technology Gen. Ed. Requirement [1]		3

EXHIBIT B - 9

World Language – 2nd in a sequence [2]	3
Elective to meet 60 credits	0-1
Credit Hours	15-17
Total Credit Hours	60-62

1
Students must select one math course, one lab science course, and one technology course and complete the 12 credit requirement with any additional math or science course from the list of Approved General Education Courses. Students may attempt to "test out" of the technology requirement. If they succeed, they must take an additional course in math or science from the List of Approved General Education Courses.

2
World Language Courses (two sequential semesters of a foreign language is required – for example, SPAN I and II).

Global Studies Program Electives

ANTH 134	Cultural Anthropology	3
ARTS 181	Art From Prehistory to Middle Ages	3
ARTS 182	Art From Renaissance to Modern World	3
ARTS 191	The Arts of the Islamic World	3
ARTS 205	Modern Art	3
ENGL 222	Indigenous American Literature	3
ENGL 225	Chinese Literature in Translation	3
ENGL 226	Arabic Literature in Translation	3
ENGL 235	Literature and Myth	3
ENGL 237	Multicultural Fairy and Folk Tales	3
ENGL 255	World Literature Ancient through 1600	3
ENGL 256	World Literature 1600 to Present	3
FILM 190	World Cinema	3
GEOG 161	World Physical Geography	3
GEOG 162	Human Geography	3
HIST 185	Survey of Middle Eastern Civilization	3
HIST 272	History of Russia	3
HIST 275	History and Culture of China	3
HIST 278	History of the Arab World Since World War I	3
HIST 280	Modern Latin American History	3
HUMN 200	Modernism and the Arts	3
HUMN 201	Postmodernism and the Arts	3
MUSC 194	Introduction to World Music	3
PHIL 192	Contemporary Ethical Issues	3
POLI 263	Introduction to International Relations	3
POLI 265	Comparative Politics and Government	3
POLI 268	Women and Politics	3
PSYC 175	Cross-Cultural Psychology	3
RELG 193	World Religions	3

RELG 293	Religious Experiences	3
SOCI 181	Introduction to Sociology	3
SOCI 231	Social Problems	3
Any approved Travel Seminar course		3
World Language courses [2]		3

Degree Requirements Breakdown

GCOM

Course Code & Title	Credits
ENGL 151	3
ENGL 152	3
COMM 154	3

GHUM

Course Code & Title	Credits
WORLD LANGUAGE (I) COURSE	3
WORLD LANGUAGE (II) COURSE	3
GEN. ED. HUMN	3

GHIS

Course Code & Title	Credits
HIST 181	3
HIST 182	3

GSOC

Course Code & Title	Credits
GEN. ED. SOCIAL SCIENCE	3
POLI 101	3

GDIV

Course Code & Title	Credits
POLI 263 OR POLI 265	3

GMAT/ GSCI/ GTEC

Course Code & Title	Credits
GEN. ED. MATH	3
GEN. ED. LAB SCIENCE	4
GEN. ED. MATH OR LAB SCIENCE	3-4
GEN. ED. TECHNOLOGY	3

Concentration Courses

Course Code & Title	Credits
GLOBAL STUDIES ELECTIVE	3
GLOBAL STUDIES ELECTIVE	3
GLOBAL STUDIES-TRAVEL	3

Elective Courses

Course Code & Title	Credits
STSC 150	2
ELECTIVE	0-1

Reviewer Comments

Key: 33