



CBY101 | Introduction to Cybersecurity (BPO) CBY-101

Section Online 3 Credits 05/17/2016 to 05/18/2099 Modality Online Modified 03/31/2026

Description

The purpose of this course is to explore the evolving crime phenomenon resulting from the technology revolution over the last 60 years. An examination of the unique human-computer relationship will be conducted to develop and understanding of how criminal activity has adopted the use of new technologies to further their criminal activity. Additionally, a review of social constructs relating to high tech criminal activity will be provided.

Program Learning Outcomes

By the end of the program, students will be able to:

- Describe and explain the various proactive approaches to deterring and investigating cyberincidences across industries.
- Understand cyber governance, ethics, and information assurance within the cybersecurity arena
- Express an understanding of the skills and knowledge required to work within the field of cybersecurity.

BS in Cybersecurity: Digital Forensics and Incident Response adds the following outcomes:

- Demonstrate an understanding of current approaches to detect and or deter cybercrime, and to investigate incidences related to digital crime activity.
- Demonstrate an understanding of digital forensic tools and techniques.
- Express an understanding of current issues relating to digital forensics and determine the best practices for attending to them based upon available resources and tools, and the overall needs of the organization.

BS in Cybersecurity: Risk Management adds the following outcomes:

- Demonstrate an understanding of various stakeholder perspectives and frameworks for assessing risk.
- Describe and explain ways to mitigate risk across an enterprise.
- Describe best practices for the documentation and communication of risk to various stakeholders.

BS in Cybersecurity: Information Assurance adds the following outcomes:

- Demonstrate knowledge of the tools and techniques utilized to assure confidentiality, integrity, and availability of an organization's data assets.
- Recommend policy, practices, and procedures required to ensure accuracy, authenticity, utility, and possession of data, and recognizing the needs of the organization for access as well as security.
- Utilize critical thinking skills by demonstrating proficiency in the ability to research, understand, and communicate appropriate responses based on best practices, to test a variety of information assurance threats.

Course Learning Outcomes

Competencies:

At the conclusion of CBY101, students will be able to:

1. Identify the bad actors in cyberspace and compare and contrast their resources, capabilities/techniques, motivations and aversion to risk.
2. Discuss the applicable laws and policies related to cyber defense and describe the major components of each pertaining to the storage and transmission of data.
3. Discuss cybersecurity concepts, principles, domains and the interconnection between people and data.

Materials

All materials in this course can be found in Canvas.

Evaluation

Students in this course will be evaluated via a variety of assessments, including active engagement discussions, labs, quizzes, activities, and written assignments. Point values vary, and students are encouraged to use the rubrics as guides for completion of the assignments.

Course Outline

Week 1: Introduction to Computers, Computing, and Cybersecurity

Learning Objectives:

By the end of this week's lesson, you will be able to:

1. Describe the history of computers and computing. (CC1)
2. Discuss the origin of the Internet. (CC1)
3. Identify the technological advancements that enable us to stay connected world wide. (CC3)
4. Define and classify risks associated with an interconnected world. (CC1)

5. Investigate common cyber security attack types. (CC1, CC3)

To-Do List:

1. Review videos
2. Read Chapters 1 & 2
3. Discussion
4. Quiz on Chapters Chapters 1 & 2
5. Chapter 1 Lab - What was taken?
6. Written Assignment

Week 2: Protecting data within an organization's security architecture**Learning Objectives:**

By the end of this week, students will be able to:

1. Describe the concept of security architecture. (CC3)
2. Compare security models.(CC2, CC3)
3. Describe the components of implementing a security model. (CC3)
4. Summarize data and information protection procedures. (CC2, CC3)
5. Identify encryption fundamentals (CC3)

To-Do List:

1. Review video: Cyber Security Course for Beginners
2. Read Chapter 3 - Protecting Your Data and Privacy
3. Quiz
4. Discussion
5. Lab - Create and Store Strong Passwords
6. Lab - Who Owns Your Data
7. Lab - Discover Your Own Risky Online Behavior

Week 3: Understanding and protecting an organization's network**Learning Objectives:**

By the end of this week, students will be able to:

1. Discuss process controls needed to mediate security risks. (CC2, CC3)
2. Describe security anomalies. (CC2, CC3)
3. Identify ways to secure communications and networks. (CC2, CC3)

To-Do List:

1. Review video
2. Read Chapter 4
3. Discussion

4. Quiz on Chapter 4
5. Activity - Identify the Firewall Type
6. Activity - Identify the Security Appliance
7. Activity - Identify Cybersecurity Approach Terminology

Week 4: Laws and security controls that protect people, privacy and data

Learning Objectives:

By the end of this week, students will be able to:

1. Investigate policies designed to protect data. (CC2, CC3)
2. Critique access management controls. (CC3)
3. Differentiate between networks, systems, applications and data. (CC1, CC2, CC3)

To-Do List:

1. Read - Data Protection Law: An Overview
2. Video - Identity and Access Management
3. Discussion - Security Layer Access Controls: Administrative Controls, Physical Controls and Technical Controls
4. Written Assignment

Week 5: Responding to a cybersecurity incident

Learning Objectives:

By the end of this week, students will be able to:

1. Differentiate between security incidents, events and disasters. (CC1, CC3)
2. Investigate legal and economic implications of security incidents and events. (CC1, CC2, CC3)
3. Identify procedures needed to respond to security incidents, events and disasters. (CC2, CC3)

To-Do List:

1. Video - How to Get Started with Cybersecurity Incident Response
2. Video - Incident Handling Process
3. Video - NIST Illustrated
4. Discussion
5. Written Assignment

Week 6: The evolving field of cybersecurity

Learning Objectives:

By the end of this week, students will be able to:

1. Investigate the implications of cybersecurity as an after thought. (CC1, CC2, CC3)
2. Describe risks in the adoption of evolving technology. (CC1, CC2, CC3)

3. Investigate cybersecurity roles in various industries.

To-Do List:

1. Review videos
2. Read Chapter 5
3. Discussion
4. Written Assignment

Week 7: Reflections & Looking Ahead

To-Do List:

1. Discussion



Institutional Policies

Evaluation of Student Learning

At the completion of this course, you will receive a grade reflecting your performance in this course. For details including the letter/number scale, see the “Grading” section of the Catalog.

Rubrics:

Assignments and discussions are graded with rubrics. Students should carefully review the criteria in the rubrics and the rating scale before completing the assignment in order to ensure that they are meeting expectations.

Active Engagement

At Bay Path University, we believe that students learn through being actively engaged in their classes, both online and on-ground. Research supports that engagement with faculty and peers is a critical element to student persistence, academic success, and personal development. We therefore expect students to empower one another and to encourage the active and positive participation of peers.

To foster student success, we assess active engagement regularly in all classes. Students should refer to their Canvas class for detailed information on grading in each course.

Please note the related policies [Attendance \(https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/attendance-policy/\)](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/attendance-policy/) and [the Leave of Absence and Stop Out \(https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/leave-absence-stop-out-policy/\)](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/leave-absence-stop-out-policy/) (for things like Administrative Drop from Course, Administrative Drop from Institution, Planning To Return, and Financial Charges) in the Catalog.

Late Work

Bay Path Online aims to strike a balance in our academic policies between supporting student success and recognizing that the realities of students' non-academic responsibilities require flexibility in the completion of academic work. We have identified that starting behind in an accelerated course often leads to poor performance and non-completion. It is very important that you proactively communicate with your instructor.

- Refer to the [Attendance Policy \(https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/attendance-policy/\)](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/attendance-policy/) for Week 1.
- Work due in Weeks 2-6 may be accepted up until 11:59 PM ET of the Wednesday following the due date.
 - Per the attendance policy (see above), at least one item must be submitted by Wednesday at 11:59pm ET of Week 2 in order to not be administratively dropped from the course.
 - *By the due date*, students are required to communicate with their instructor via Canvas message or Bay Path University email that an assignment will be late.
 - Any accepted late work will receive a 30% deduction prior to other possible deductions.
 - For example, in an 100pt assignment, it would start at a grade of 70 and additional deductions may be applied based on the rubric.
- Exceptions in Weeks 2-6 are at the instructor's discretion in consultation with the program director.
- No late work will be accepted in the last week of class. Please refer to the [Incomplete Grade policy \(https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/incomplete-grades/\)](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/incomplete-grades/) for additional information.

Specific coursework examples:

- **KnowledgePath (KP)**
 - KP activities should be submitted by the set due date but may be revised to improve learning and score throughout the duration of the course.
 - Revision is not an opportunity in classes utilizing KP quizzes or assessments, typically in select math and science courses
- **Discussions**
 - Discussions are designed to demonstrate active engagement with the course material. If an initial discussion post is submitted late, no credit will be awarded, however; students can still earn partial credit if their peer responses are submitted/occur on time.
- **Quizzes and exams**
 - The policy related to quizzes and exams varies by course. Please carefully review the information provided within your individual course.
- **Time-sensitive assignments**
 - Time-sensitive assignments (such lab experiments that require coordination on a specific day/time) cannot be made up.

Statement of Academic Integrity

The vision of Bay Path University's [Academic Integrity Policy \(https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/academic-integrity-classroom-behavior-policy/\)](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/academic-integrity-classroom-behavior-policy/) is to educate students and inspire them to the highest standards of academic endeavor. In practice, the Policy is designed to evaluate whether violations of the Policy have occurred, to provide education regarding the nature of the violation and how to avoid future incidents, and to determine appropriate sanctions when violations are found. For the purposes of this Policy, student behavior related to academic coursework will be managed by the Committee co-chairs, and student behavior unrelated to academic coursework will be managed by Student Life. For full details, please [refer to the Catalog \(https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/academic-integrity-classroom-behavior-policy/\)](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/academic-integrity-classroom-behavior-policy/).

Federal Credit Hour

A “credit hour” is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is institutionally established and reasonably approximates certain standards. Please refer to the Catalog for the full [Federal Credit Hour Policy \(https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/federal-credit-hour-policy/\)](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/federal-credit-hour-policy/).

Procedures for Students with Disabilities

Bay Path University is committed to providing equal access to students with disabilities and temporary medical needs under the guidelines of Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act.

Students with disabilities and temporary medical needs who wish to request reasonable accommodations to ensure equal access to classes, programs or services must register with Student Accessibility Services at accessibility@baypath.edu. Supports for students include reasonable and effective accommodations, academic adjustments, and/or auxiliary aids as determined on a case by case basis. For more detailed information, please visit the [Accessibility Services Page \(https://one.baypath.edu/pages/accessability-services/\)](https://one.baypath.edu/pages/accessability-services/).

Availability of Tutoring Services

We work with a full-service online tutoring program called Tutor.com. Tutor.com can be accessed directly through the Canvas classroom.

For other tutoring options, please contact: academicsupport@baypath.edu

Technology

Important: Chromebooks, tablets (iPads), smartphones, and the Canvas mobile app **may not support full functionality of all tools incorporated into classes**. Relying solely on such may result in limited functionality, loss of work, and inability to access course materials.

Refer to support.baypath.edu for [full technology recommendations](https://support.baypath.edu/support/solutions/articles/4000063090) (<https://support.baypath.edu/support/solutions/articles/4000063090>).

Please refer to [Canvas](https://baypath.instructure.com/) (<https://baypath.instructure.com/>) or [BPU Community](https://one.baypath.edu/dashboard) (<https://one.baypath.edu/dashboard>) for the necessary [IT contact information](https://one.baypath.edu/pages/tech-support-home) (<https://one.baypath.edu/pages/tech-support-home>).

Bay Path Core Values

In 2021, Bay Path joined together in a community-wide undertaking to define the [Bay Path Core Values](https://one.baypath.edu/pages/core-values) (<https://one.baypath.edu/pages/core-values>). These eight Core Values are fundamental to our vision that, At Bay Path, every learner's dreams of a better career, a richer life, and a brighter future will be realized. In order to bring these Values to life, we must incorporate these into the very fabric of our University: how we work together, how we face opportunities as well as challenges, and how we best serve our students.

Programs With Specialty Accreditation

Please see the [Catalog](https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/) (<https://catalog.baypath.edu/american-womens-college/academic-policies-procedures/>) for policies specific to the Associates of Science in Nursing (ASN) program.