Course Description

Introduces the types of security crime, breaches, fraud, and network penetrations. Students learn procedures for preventing intrusions, fraud, and computer crime. Legal impacts for cyber security crimes are discussed and evaluated.

Course Textbook


Course Learning Outcomes

Upon completion of this course, students should be able to:

1. Explain the relevance of cyber security.
2. Identify the types of cybercrime.
3. Update computer security and firewall settings.
4. Scan for malware, rootkits, and malicious software.
5. Configure browser settings, data execution prevention, and local security policy.
6. Utilize EULA analyzer, port scanners, network protocol analyzers, and key logger software.
7. Analyze security risks and traffic.
8. Identify legal sanctions for cybercrime.
9. List the procedures for a disaster recovery plan.
10. Explain the importance of security training and awareness.
11. Compare cloud computing features.

Credits

Upon completion of this course, the students will earn three (3) hours of college credit.

Course Structure

1. **Study Guide**: Each unit contains a Study Guide that provides students with the learning outcomes, unit lesson, required reading assignments, and supplemental resources.
2. **Learning Outcomes**: Each unit contains Learning Outcomes that specify the measurable skills and knowledge students should gain upon completion of the unit.
3. **Unit Lesson**: Each unit contains a Unit Lesson, which discusses lesson material.
4. **Reading Assignments**: Each unit contains Reading Assignments from one or more chapters from the textbook. Chapter presentations are provided in the Unit I-II and IV-VIII study guides as Required Reading to aid students in their course of study.
5. **Suggested Reading**: Suggested Readings are listed in Units I-IV and VI-VII. Students are encouraged to read the resources listed if the opportunity arises, but they will not be tested on their knowledge of the Suggested Readings.
6. **Learning Activities (Non-Graded)**: These non-graded Learning Activities are provided to aid students in their course of study.
7. **Discussion Boards**: Discussion Boards are part of all CSU term courses. More information and specifications can be found in the Student Resources link listed in the Course Menu bar.
8. **Unit Assessments**: This course contains one Unit Assessment, to be completed at the end of Unit VII. The Assessment is composed of written-response questions.
9. **Unit Assignments:** Students are required to submit for grading Unit Assignments in Units I-VI and VIII. Specific information and instructions regarding these assignments are provided below. Grading rubrics are included with each assignment. Specific information about accessing these rubrics is provided below.

10. **Ask the Professor:** This communication forum provides you with an opportunity to ask your professor general or course content related questions.

11. **Student Break Room:** This communication forum allows for casual conversation with your classmates.

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**CSU Online Library**

The CSU Online Library is available to support your courses and programs. The online library includes databases, journals, e-books, and research guides. These resources are always accessible and can be reached through the library webpage. To access the library, log into the myCSU Student Portal, and click on “CSU Online Library.” You can also access the CSU Online Library from the “My Library” button on the course menu for each course in Blackboard.

The CSU Online Library offers several reference services. E-mail (library@columbiasouthern.edu) and telephone (1.877.268.8046) assistance is available Monday – Thursday from 8 am to 5 pm and Friday from 8 am to 3 pm. The library’s chat reference service, Ask a Librarian, is available 24/7; look for the chat box on the online library page.

Librarians can help you develop your research plan or assist you in finding relevant, appropriate, and timely information. Reference requests can include customized keyword search strategies, links to articles, database help, and other services.

**Security Tools Use and Applications**

Cautionary note: Please read your book, and do not just scan the readings. Read your announcements and this syllabus for potential changes to assignments, nonworking links, etc. The tools used in this class and the course layout allow the student to engage in hands-on discovery of information and information gathering and to assess vulnerabilities. An ethical hacker follows the book and syllabus. At no time are you actually conducting a penetration of a website or network to disrupt or gather sensitive information. You are being exposed to the basic tools that a hacker uses to discover and gather information to attack or penetrate a website or network for criminal purposes. Most of these tools are used today by systems administrators to gather information on how to protect and secure an organization’s network and systems.

You must use your own laptop or desktop computer in which you have administrative rights and not a public computer (used at your organization or workplace, a library, etc.). Those computer systems that do not belong to you personally will not grant you certain administrative rights to view download, upload, or Internet search information. Please see your student handbook on required technology requirements.

**Unit Assignments**

**Unit I PowerPoint Presentation**

Create a 7-10- slide PowerPoint Presentation on the challenges of securing information, and list some of today's information security attacks. You may use various sources (scholarly), but at a minimum, your textbook must be used. Be sure to cite any sources used in a reference slide with proper APA formatting. (Title and reference slides do not count in the total number of slides).

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

**Unit II Scholarly Activity**

At the end of Chapter 2 in your textbook, you will find a list of Case Projects. Select one of the following Case Projects and prepare a one-two- page paper.

- Case Project 2-1: Researching Virus Attacks
- Case Project 2-2: Researching Social Engineering
- Case Project 2-3: Fighting Spam
- Case Project 2-4: Defining Spyware
Use your own words, and remember to apply APA style to your paper.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

**Unit III Web Assignment**

In this assignment, you will research and identify one of the laws that governs computer access and trespass. Begin by selecting ONE of the following governances, laws, or standards:

1. The USA Patriot Act of 2001: [http://www.justice.gov/archive/ll/highlights.htm](http://www.justice.gov/archive/ll/highlights.htm)
6. Another governance, law, or standard of your choosing.

After conducting research online, write a two-page (500-word) paper. Within the paper, include each of the following:

1. Provide an overview of the governance, law, or standard explaining how it is intended to protect civilians.
2. Does adhering to the governance, law, or standard include any nuisances? Does it place a hardship on users or organizations? List them.
3. Describe an example scenario where the governance, law, or standard is violated (this can be real or fictitious).
4. Provide your own thoughts about the effectiveness of the governance, law, or standard. Does it actually accomplish its intentions?
5. Two references (websites, the CSU Online Library, or books)

Apply APA style to the paper, including in-text citations, references, and the format of the pages.

The purpose of this assignment is to allow you to examine a law or standard that governs computer access and trespass. While this assignment does not allow you to examine all of the laws and standards, it does allow you to utilize the process of researching laws and standards. Thus, it reinforces a technique you can utilize as a life-long learner as well as a professional.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

**Unit IV Web Assignment**

For this assignment, choose ONE of the following options:

**Option 1:** Conduct research on the Internet, and write a one-two-page paper on some of the highly publicized DoS attacks that have occurred most recently. Include in your paper the attackers who launch these attacks, and discuss how these attacks can be prevented. Include a title page and separate references page. Follow CSU APA guidelines. This includes in-text citations, referencing, and formatting of the pages.

**Option 2:** Conduct research on the Internet, and write a one-two-page paper on how zero day attack vulnerabilities are discovered. Include in the paper some of the most recent zero day attacks. Also, describe how to defend against zero day attacks. Include a title page and separate references page. Follow CSU APA guidelines. This includes in-text citations, referencing, and formatting of the pages.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.
Unit V Assignment

This assignment asks you to participate in two projects and then to write about both projects in ONE paper.

1. Complete Project 4-1: Using an Internet Port Scanner on page 150 within the textbook
2. Complete Project 4-4: Launching the Linux Wireshark Network Protocol Analyzer on pages 154-156 within the textbook

Write a one-two-page paper about both projects, and describe any unusual problems that arose as a result of these projects. Also include a brief description of a port scanner and a network protocol analyzer. Include a title page and a separate reference page. Follow CSU APA guidelines. This includes in-text citations, referencing and formatting of the paper.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

Unit VI Assignment

This assignment asks you to participate in three projects and then to write about each project in one paper. Begin by following the instructions for each project provided within the textbook.

1. Case Project 6-4: Network Firewall Comparison on page 247 within the textbook
2. Case Project 7-2: Comparing Cloud Computing Features on page 288 within the textbook
3. Project 1-3: Use an Eula Analyzer on pages 34-35 within the textbook

Note: For Project 1-3, the first hyperlink is broken (www.microsoft.com/About/Legal/EN/US/IntellectualProperty/UseTerms/Default.aspx), so use the following hyperlink in its place: https://www.microsoft.com/en-us/useterms

Write a two-page paper following the directions within the textbook on Case Project 6-4, Case Project 7-2, and Project 1-3. Include a title page and separate reference page. Follow CSU APA Guidelines, including in-text citations, referencing, and formatting of the paper.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

Unit VIII PowerPoint Presentation

Create a five-seven- PowerPoint Presentation on what goes into a disaster recovery plan. Include all the units as outlined in the textbook, and explain each section of the plan. Be sure to cite any sources used in a reference slide with proper APA formatting. (The cover and reference slides do not contribute to the slide count). You may also use the slide notes function to explain slide content as necessary.

Information about accessing the Blackboard Grading Rubric for this assignment is provided below.

APA Guidelines

The application of the APA writing style shall be practical, functional, and appropriate to each academic level, with the primary purpose being the documentation (citation) of sources. CSU requires that students use APA style for certain papers and projects. Students should always carefully read and follow assignment directions and review the associated grading rubric when available. Students can find CSU’s Citation Guide by clicking here. This document includes examples and sample papers and provides information on how to contact the CSU Success Center.

Grading Rubrics

This course utilizes analytic grading rubrics as tools for your professor in assigning grades for all learning activities. Each rubric serves as a guide that communicates the expectations of the learning activity and describes the criteria for each level of achievement. In addition, a rubric is a reference tool that lists evaluation criteria and can help you organize your efforts to meet the requirements of that learning activity. It is imperative for you to familiarize yourself with these rubrics because these are the primary tools your professor uses for assessing learning activities.
Rubric categories include: (1) Discussion Board, (2) Assessment (Written Response), and (3) Assignment. However, it is possible that not all of the listed rubric types will be used in a single course (e.g., some courses may not have Assessments).

The Discussion Board rubric can be found within Unit I’s Discussion Board submission instructions.

The Assessment (Written Response) rubric can be found embedded in a link within the directions for each Unit Assessment. However, these rubrics will only be used when written-response questions appear within the Assessment.

Each Assignment type (e.g., article critique, case study, research paper) will have its own rubric. The Assignment rubrics are built into Blackboard, allowing students to review them prior to beginning the Assignment and again once the Assignment has been scored. This rubric can be accessed via the Assignment link located within the unit where it is to be submitted. Students may also access the rubric through the course menu by selecting “Tools” and then “My Grades.”

Again, it is vitally important for you to become familiar with these rubrics because their application to your Discussion Boards, Assessments, and Assignments is the method by which your instructor assigns all grades.

Communication Forums

These are non-graded discussion forums that allow you to communicate with your professor and other students. Participation in these discussion forums is encouraged, but not required. You can access these forums with the buttons in the Course Menu. Instructions for subscribing/unsubscribing to these forums are provided below.

Click here for instructions on how to subscribe/unsubscribe and post to the Communication Forums.

Ask the Professor

This communication forum provides you with an opportunity to ask your professor general or course content questions. Questions may focus on Blackboard locations of online course components, textbook or course content elaboration, additional guidance on assessment requirements, or general advice from other students.

Questions that are specific in nature, such as inquiries regarding assessment/assignment grades or personal accommodation requests, are NOT to be posted on this forum. If you have questions, comments, or concerns of a non-public nature, please feel free to email your professor. Responses to your post will be addressed or emailed by the professor within 48 hours.

Before posting, please ensure that you have read all relevant course documentation, including the syllabus, assessment/assignment instructions, faculty feedback, and other important information.

Student Break Room

This communication forum allows for casual conversation with your classmates. Communication on this forum should always maintain a standard of appropriateness and respect for your fellow classmates. This forum should NOT be used to share assessment answers.

Grading

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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<tr>
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<td>32%</td>
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<tr>
<td>Unit VII Assessment</td>
<td>7%</td>
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<tr>
<td>Assignments (2 @ 8%)</td>
<td>16%</td>
</tr>
<tr>
<td>PowerPoint Presentations (2 @ 9%)</td>
<td>18%</td>
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<tr>
<td>Unit II Scholarly Activity</td>
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</tr>
<tr>
<td>Web Assignments (2 @ 10%)</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</tbody>
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Course Schedule/Checklist (PLEASE PRINT)

The following pages contain a printable Course Schedule to assist you through this course. By following this schedule, you will be assured that you will complete the course within the time allotted.
By following this schedule, you will be assured that you will complete the course within the time allotted. Please keep this schedule for reference as you progress through your course.

## Unit I  
**Introduction to Security**

**Review:**
- [ ] Unit Study Guide
- Learning Activities (Non-Graded): See Study Guide

**Read:**
- [ ] Chapter 1: Introduction to Security
- [ ] Additional Reading Assignment(s): See Study Guide
- [ ] Suggested Reading: See Study Guide

**Discuss:**
- [ ] Discussion Board Response: Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- [ ] Discussion Board Comment: Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- [ ] PowerPoint Presentation by Tuesday, 11:59 p.m. CST (Central Time)

Notes/Goals:

## Unit II  
**Malware and Social Engineering Attacks**

**Review:**
- [ ] Unit Study Guide
- Learning Activities (Non-Graded): See Study Guide

**Read:**
- [ ] Chapter 2: Malware and Social Engineering Attacks
- [ ] Additional Reading Assignment(s): See Study Guide
- [ ] Suggested Reading: See Study Guide

**Discuss:**
- [ ] Discussion Board Response: Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- [ ] Discussion Board Comment: Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- [ ] Scholarly Activity by Tuesday, 11:59 p.m. CST (Central Time)

Notes/Goals:

## Unit III  
**The Legal Aspects of Electronic Data**

**Review:**
- [ ] Unit Study Guide
- Learning Activities (Non-Graded): See Study Guide

**Read:**
- [ ] Chapter 1: Introduction to Security, p. 18
- [ ] Additional Reading Assignment(s): See Study Guide
- [ ] Suggested Reading: See Study Guide

**Discuss:**
- [ ] Discussion Board Response: Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- [ ] Discussion Board Comment: Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- [ ] Web Assignment by Tuesday, 11:59 p.m. CST (Central Time)

Notes/Goals:
# Course Schedule

## Unit IV
**Application and Network Attacks**

**Review:**
- Unit Study Guide
- **Learning Activities (Non-Graded):** See Study Guide

**Read:**
- Chapter 3: Application and Network Attacks
- **Additional Reading Assignment(s):** See Study Guide
- **Suggested Reading:** See Study Guide

**Discuss:**
- **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- **Web Assignment** by Tuesday, 11:59 p.m. CST (Central Time)

**Notes/Goals:**

## Unit V
**Vulnerability Assessment and Mitigating Attacks**

**Review:**
- Unit Study Guide
- **Learning Activities (Non-Graded):** See Study Guide

**Read:**
- Chapter 4: Vulnerability Assessment and Mitigating Risks
- Chapter 5: Host, Application, and Data Security
- **Additional Reading Assignment(s):** See Study Guide

**Discuss:**
- **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- **Assignment** by Tuesday, 11:59 p.m. CST (Central Time)

**Notes/Goals:**

## Unit VI
**Network Security**

**Review:**
- Unit Study Guide

**Read:**
- Chapter 6: Network Security
- Chapter 7: Administering a Secure Network
- **Additional Reading Assignment(s):** See Study Guide
- **Suggested Reading:** See Study Guide

**Discuss:**
- **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- **Assignment** by Tuesday, 11:59 p.m. CST (Central Time)

**Notes/Goals:**
## Course Schedule

### Unit VII - Wireless Network Security, Access Control Models, and Authentication

**Review:**
- Unit Study Guide

**Read:**
- Chapter 8: Wireless Network Security
- Chapter 9: Access Control Fundamentals
- Chapter 10: Authentication and Account Management
- Additional Reading Assignment(s): See Study Guide
- Suggested Reading: See Study Guide

**Discuss:**
- Discussion Board Response: Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- Discussion Board Comment: Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- Assessment by Tuesday, 11:59 p.m. CST (Central Time)

### Unit VIII - Business Continuity and Risk Mitigation

**Review:**
- Unit Study Guide
- Learning Activities (Non-Graded): See Study Guide

**Read:**
- Chapter 13: Business Continuity
- Chapter 14: Risk Mitigation
- Additional Reading Assignment(s): See Study Guide

**Discuss:**
- Discussion Board Response: Submit your response to the Discussion Board question by Saturday, 11:59 p.m. CST (Central Time)
- Discussion Board Comment: Comment on another student’s Discussion Board response by Tuesday, 11:59 p.m. CST (Central Time)

**Submit:**
- PowerPoint Presentation by Tuesday, 11:59 p.m. CST (Central Time)

**Notes/Goals:**