Legal and ethical aspects

**Module Description:** The intent of this Knowledge Unit is to provide students with a basic understanding of the legal and ethical aspects of cybersecurity.

**Prerequisite Knowledge:**  Students are expected to have a familiarity with different types of networks and network devices.

**Length of Completion**: 3 lecture/meeting/active learning hours, 3 hours outside of lecture reading/preparation, homework.

**Level of Instruction:** This module intended for advanced undergraduate students majoring in computer science or computer engineering.

**Learning Setting:** This module is suitable for many forms of delivery: online/in-class/hybrid.

**Lab Environment:** No lab needed for this module.

**Activity/Lab Tasks:** Learning activities involves group discussion and internet searches.

**Lab Files that are Needed:** No lab files are needed.

# learning outcomes

MODULE learning oUTCOMES

* Students will be able to describe different types of cybercrime.
* Students will be able to analyze a situation and discuss if it is a cybercrime.
* Students will be able to describe different types of intellectual property.
* Students will be able to describe legal mechanisms for protecting intellectual property.
* Students will be able to describe different types of intellectual property.
* Students will be able to describe legal mechanisms for protecting intellectual property.
* Students will be able to discuss ethical questions related to cyber security.
* Students will be able to research and discuss professional society codes of conduct/ethics.

# module Details

**Interconnection:** This module is not directly interconnected with other modules.

**Instructional Files and Online Resources that are Needed:**

* Lesson 1: Lesson\_1\_LegalApects\_CyberCrime.pptx
* Lesson 2: Lesson\_2\_LegalApects\_IntellectualProperty.pptx
* Lesson 3: Lesson\_3\_LegalApects\_Privacy.pptx
* Lesson 4: Lesson\_4\_LegalApects\_Ethics.pptx

**Assessment:** This provides a reference of what is included in the assessment guide and a mapping of how the assessment items cover all module and lesson learning outcomes.

# lessons

**Overview of Lessons**

* Lesson 1: Cyber Crime
* Lesson 2: Intellectual Property
* Lesson 3: Privacy
* Lesson 4: Legal and Ethical Aspects of Cybersecurity

**Lesson 1: Cybercrime**

Lesson 1 Learning Outcomes:

Upon completion of this lesson:

* Students will be able to describe different types of cybercrime.
* Students will be able to analyze a situation and discuss if it is a cybercrime.

Lesson 1 Details:

**Warm Up:** Ask the students to define cybercrime.Give some examples of behavior and discuss if it is a cybercrime.

**Lesson:** The lesson here is based on the PowerPoint slides and is a standard lecture. Allow time for questions and discussion during the lecture.

**Active Learning Activity:** Have students to look up current news stories about cybercrimes. Discuss them in class. Why are they a crime? Who committed the crime? How did they do it?

**Lesson 2: Intellectual Property**

Lesson 2 Learning Outcomes:

Upon completion of this lesson:

* Students will be able to describe different types of intellectual property.
* Students will be able to describe legal mechanisms for protecting intellectual property.

Lesson 2 Details:

**Warm Up:** Ask the students to define intellectual property. Ask if they know what a patent is? What is a copyright?

**Lesson:** The lesson here is based on the PowerPoint slides and is a standard lecture. Allow time for questions and discussion during the lecture.

**Active Learning Activity:** Have students to look up patent and trademark databases. Have them search the databases for some key terms relevant to the course or current topics. Discuss in class the use of these databases.

**Lesson 3: Privacy**

Lesson 3 Learning Outcomes:

Upon completion of this lesson:

* Students will be able to define privacy
* Students will be able to list some privacy laws and describe the purpose of them

Lesson 3 Details:

**Warm Up:** Ask the students to define privacy. What information do they consider private?

**Lesson:** The lesson here is based on the PowerPoint slides and is a standard lecture. Allow time for questions and discussion during the lecture.

**Active Learning Activity:** Discuss different privacy issues.

From review of HIPPA, it is clear that privacy is contextual. Discuss this and how it relates.

Do privacy concerns differ on an employee’s laptop, internal corporate server, cloud-based server such as AWS, or network communications?

Have students to look up privacy policies of common websites (such as Facebook and Google). Can they figure out how to set their privacy settings? If they have a google account, have them find their google search history.

**Lesson4: Ethical Issues**

Lesson 4 Learning Outcomes:

Upon completion of this lesson:

* Students will be able to discuss ethical questions related to cyber security
* Students will be able to research and discuss professional society codes of conduct

Lesson 4 Details:

**Warm Up:** Ask the students to define ethics? Is ethics different from legal/how?

**Lesson:** The lesson here is based on the PowerPoint slides and is a standard lecture. Allow time for questions and discussion during the lecture.

**Active Learning Activity:** Why are ethics important?

Why should professionals understand the Codes of their professional societies?

Discuss impacts of ethical violations.

Research IEEE code of ethics. Discuss differences with ACM Code.

Please attribute Dr. Jim Alves-Foss and Dr. Jia Song, University of Idaho  
  
  
  
Except where otherwise noted, this work is licensed under <https://creativecommons.org/licenses/by-nc-sa/4.0/>  
  
Notwithstanding the non-commercial license terms, non-profit educational institutions are granted a non-exclusive, royalty-free license to adapt and use this material, with attribution.  
  
Creative Commons and the double C in a circle are registered trademarks of Creative commons in the United States and other countries. Third party marks and brands are the property of their respective holders.