Introduction to Secure system administration

**Module Description:** This module introduces secure system administration. There are two micro modules: one is focus on security management, and the other one discusses privacy, legal and ethical issues. The security management micro module presents how to set up an incident response plan to better handle incidents. The privacy, legal and ethics micro module introduces legal and ethics, privacy, laws and computer crime.

**Prerequisite Knowledge:**  Students are expected to understand the introduction to cybersecurity concepts module and introduction to web security module.

**Length of Completion:** This module includes 2 micro modules. The total length of the module is around 5 hours.

**Level of Instruction:** This module intended for upper division 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:** None

**Activity/Lab Tasks:** There will be in-class discussion and an out-of-class written assignment.

**Lab Files that are Needed:** None

# learning outcomes

MODULE learning oUTCOMES

* Students will be able to understand security plans of organizations.
* Students will be able to depict how to develop a security plan.
* Students will be able to describe rick analysis.
* Students will be able to understand incident response plan.
* Students will be able to demonstrate how to deal with incidents and disaster.
* Students will be able to define privacy.
* Students will be able to list some privacy laws such as HIPAA, GLBA, COPPA.
* Students will be able to distinguish between copyrights, trademarks and patents.
* Students will be able to define computer crime.
* Students will be able to explain what ethics is.
* Students will be able to describe the differences between the law and ethics.

# module Details

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

Slides:

Lesson 1: Planning, risk analysis and incident response (CSP-M7-L1.pptx)

Lesson 2: Privacy, legal and Ethics (CSP-M7-L2.pptx)

**Assessment:**

Written homework questions (CSP-HW7.docx)

# lessons

**Overview of Lessons:**

Lesson 1: Planning, risk analysis and incident response

Lesson 2: Privacy, legal and Ethics

**Lesson 1 Learning Outcomes:**

Upon completion of this lesson:

* Students will be able to understand security plans of organizations.
* Students will be able to depict how to develop a security plan.
* Students will be able to describe rick analysis.
* Students will be able to understand incident response plan.
* Students will be able to demonstrate how to deal with incidents and disaster.

**Lesson 1 Details:**

**Warm Up:** Ask students what a company should do when an incident happens. If there is an incident response plan before it happens, will it help? What would be helpful to be included in an incident response plan?

**Lesson:**

Topics to be covered in this lesson include:

* Security management
* Security planning
* Risk analysis
* Incident response plan
* Physical security threats handling

**Active Learning Activity:**

In-class discussion:

One step of the risk analysis is project saving and costs. Give students several costs of software/methods and their potential savings of each software/method, let them figure out overall which is the best one to implement.

**Lesson 2 Learning Outcomes:**

Upon completion of this lesson:

* Students will be able to define privacy.
* Students will be able to list some privacy laws such as HIPAA, GLBA, COPPA.
* Students will be able to distinguish between copyrights, trademarks and patents.
* Students will be able to define computer crime.
* Students will be able to explain what ethics is.
* Students will be able to describe the differences between the law and ethics.

**Lesson 2 Details:**

**Warm Up:**

Ask students what privacy is. How much do they care about their privacy?

**Lesson:**

Topics to be covered in this lesson include:

* Intellectual property (Copyrights, patents, trademarks)
* Intellectual property law
* Computer Crime
* Privacy
* Privacy laws
* Legal issues
* Computer Forensics
* Ethical issues

**Active Learning Activity:**

Discussion:

Give students some examples of copyrights, patents, trademarks and ask them to distinguish them.

Please attribute Dr. Jim Alves-Foss and Dr. Jia Song, University of Idaho  
  
  
  
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