

# CTC 362 – Communication Systems Security

## SPRING 2019

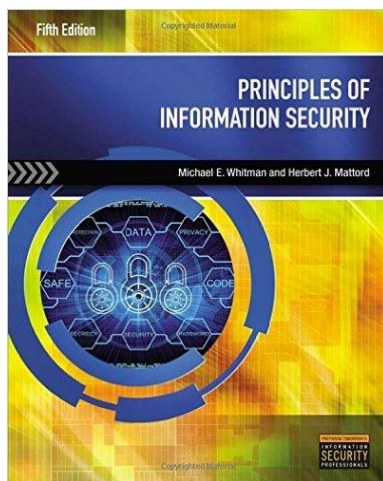
<b>Instructor</b>	Garrett Poppe	<b>E-Mail</b>	gpoppe@csudh.edu
<b>Classroom</b>	SAC 2102	<b>Class Time</b>	MoWe 1:00PM - 2:15PM
<b>Office</b>	LIB-5717	<b>Office Hours</b>	We 10:45PM - 12:45PM
<b>Phone</b>	(310) 243-3398	<b>URL</b>	<a href="http://csc.csudh.edu">http://csc.csudh.edu</a>

### COURSE DESCRIPTION:

This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. Federal Government Guidance and regulations regarding Information Assurance and Cybersecurity are introduced.

**PRE-REQUISITE:** CSC 116 and CSC 228 with grade “C” or better.

### TEXTBOOKS [Required]:



Principles of Information Security, 5<sup>th</sup> edition

M. Whitman and H. Mattord,

ISBN10: 1-285-44836-7, ISBN13: 978-1-285-44836-7

### COURSE GOALS:

The primary objective of this course is to teach students to analyze the vulnerabilities and related solutions in the area of networking, computer systems and imaging. The course presents solutions ranging from cryptography and its applications to intrusion detection and practical

countermeasures against network attacks through watermarking of images and biometric identification techniques. Federal Government and Industry guidance on Information Assurance and Cybersecurity are introduced.

### **COURSE OUTCOMES:**

**Upon completion of the course the students will be able to:**

- Identify and prioritize information assets.
- Identify and prioritize threats to information assets.
- Define and information security strategy and architecture.
- Plan for and respond to intruders in an information system.
- Describe legal and public relations implications of security and privacy issues.
- Present a disaster recovery plan for recovery of information assets after an incident.
- Identify resources available from Federal Government and Private Industry which can help address Information Assurance and Cybersecurity Issues.

### **AMERICANS WITH DISABILITIES ACT**

*CSUDH adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with temporary and permanent disabilities. If you have a disability that may adversely affect your work in this class, I encourage you to register with Disabled Student Services (DSS) and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the DSS. For information call (310) 243-3660 or to use the Telecommunications Device for the Deaf, call (310) 243-2028 or goto: <http://www4.csudh.edu/dss/>*

### **COMPUTER INFORMATION LITERACY EXPECTATIONS**

*It is expected that students will:*

- 1. Use Microsoft Word for word processing unless otherwise approved by the instructor,*
- 2. Be familiar with using email as a communication tool and check your official campus email account at least every other day;*
- 3. Be able to access websites and online course materials which may require Flash and other plug-ins;*
- 4. Use the library databases to find articles, journals, books, databases and other materials;*
- 5. Be able to create an effective PowerPoint presentation;*
- 6. Be able to record audio (ideally video) to share with the instructor via the web; and*
- 7. Have regular access to a computer and internet access for the term of this course.*

### **ACADEMIC INTEGRITY**

Academic integrity is of central importance in this and every other course at CSUDH. You are obliged to consult the appropriate sections of the University Catalog and obey all rules and regulations imposed by the University relevant to its lawful missions, processes, and functions. **All work turned in by a student for a grade must be the students' own**

**work.** Plagiarism and cheating (e.g. stealing or copying the work of others and turning it in as your own) will not be tolerated, and will be dealt with according to University policy. The consequences for being caught plagiarizing or cheating range from a minimum of a zero grade for the work you plagiarized or cheated on, to being dropped from the course.

### **BEHAVIORAL STANDARDS**

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. The instructor may require a student responsible for disruptive behavior to leave class pending discussion and resolution of the problem and may also report a disruptive student to the Student Affairs Office (WH A-410, 310-243-3784) for disciplinary action.

### **COURSE POLICIES:**

- Deliverables (Class Assignments, Projects) submitted late are not accepted.
- Deliverables (Class Assignment, Projects) not submitted before the end of the final class will earn 0%.
- Any exceptional, non-academic circumstances need to be discussed with the instructor as soon as they arise, prior to the due date of the deliverable. At the time of the discussion, NO make-up work will be assigned.

The instructor reserves the right not to award credit for deliverables that are incomplete. Partial credit is awarded at the instructor's discretion, and only for work that merits such an award. Assignments that are incomplete or incongruous with the specifications may be returned to the student.

### **MIDTERM & FINAL EXAM:**

Midterm Exam 1 is during the 5th week of the class,

Midterm Exam 2 is during the 10th week of the class, and the date for the final exam is based on the final examination schedule printed in the campus Class Schedule. All projects are due no later than the last week of the semester.

**No makeup or early exams will be administered.**

### **GRADES:**

**The following grading scale will be used:**

Score	Grade	Score	Grade
96-100	A	90-95	A-
87-89	B+	83-86	B
80-82	B-	77-79	C+
73-76	C	70-72	C-
67-69	D+	63-66	D
0-60	F		

### **GRADING:**

**The weighting of the coursework is listed below:**

Exam 1	15%
Exam 2	15%

Final Exam	25%
Labs and Quizzes	35%
Project	10%
<b>Total:</b>	<b>100%</b>

**TOPIC OUTLINE (Will be conducted according the following. However, the schedule of the topics schedule or timetable may be varying slightly)**

[Tentative Course Schedule](#)

WEEK #	DATE	TOPIC	<i>Reading Assignment/ Computer Lab Topic/In Class Assignments</i>
<b>Week 1</b>	1/22/19	Course Introduction & Requirements/ Overview of References, Blackboard	Chapter 1
<b>Week 2</b>	1/29/19	Need for Security	Chapter 2
<b>Week 3</b>	2/5/19	Legal, Ethical, and Professional Issues in Information Security	Chapter 3
<b>Week 4</b>	2/12/19	Planning for Security.	Chapter 4
<b>Week 5</b>	2/19/19	<b>Exam 1</b>	Chapter 1-4
<b>Week 6</b>	2/26/19	Risk Management.	Chapter 5
<b>Week 7</b>	3/5/19	Firewalls and VPNs	Chapter 6
<b>Week 8</b>	3/12/19	IDS and IPS	Chapter 7
<b>Week 9</b>	3/19/19	Cryptography	Chapter 8
<b>Week 10</b>	3/26/19	<b>Exam 2</b>	Chapter 5-8
<b>Week 11</b>	4/2/19	Physical Security	Chapter 9
<b>Week 12</b>	4/9/19	Implementing Information Security	Chapter 10
<b>Week 13</b>	4/16/19	Security and Personnel	Chapter 11
<b>Week 14</b>	4/23/19	Information Security Maintenance	Chapter 12
<b>Week 15/16</b>	4/30/19 5/7/19	Final Project Presentation	<i><b>Due for Project Report, Presentation</b></i>
<b>Week 17</b>	5/17/19	<b>Final Exam Week</b>	<b>The Final Exam: all chapters covered</b>