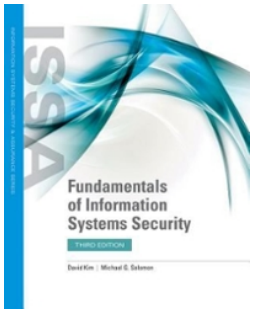
California State University
DOMINGUEZ HILLS

WWW.CSUDH.EDU

College of Natural and Behavioral Sciences
Department of Computer Science
http://csc.csudh.edu

COURSE TITLE:	Communication Systems Security
COURSE NUMBER:	**CTC 362**
INSTRUCTOR NAME:	**MEHRDAD S. SHARBAF, PH.D.** MSHARBAF@CSUDH.EDU, **OFFICE**: NSM A-139 **PHONE:** 310-243-3398, **OFFICE HOURS: WED. 5:00PM-7:00PM**
DATE:	SPRING SEMESTER, 2023
COURSE LENGTH:	**_15_ WEEKS**
WEB COMPANION	**N/A**
BLACKBOARD WEB SITE	**HTTP://toro.csudh.edu**
COURSE SCHEDULE:	**FRIDAYS 5:30PM-8:15PM CAMPUS**
UNIT OF ACADEMIC MEASUREMENT (SELECT ONE):	**___ QUARTER SYSTEM** **__X SEMESTER SYSTEM**
PREREQUISITES:	**CSC 116 INTRODUCTION TO HARDWARE , AND CSC 228 INTRODUCTION TO NETWORKS**
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.**

	TEXTBOOKS AND MATERIALS	(CHECK ONE)	
		REQUIRED	OPTIONAL (SUPPLEMENTAL)
TEXTBOOK (S)	**FUNDAMENTALS OF INFORMATION SYSTEMS SECURITY, FOURTH EDITION** Published: Jones & Bartlett  **Author(s):** **David Kim**, President and Chief Security Officer, Security Evolutions, Inc., Fairfax, Virginia **Michael G. Solomon**, Solomon Consulting Inc. **eBook Bundle** **ISBN: 9781284244571 | © 2023** **Lab Access Code: B4EB9F** **Discount Code 20%: CSUDHCYBR apply this code to get discount at the checkout process** **https://www.jblearning.com/catalog/productdetails/9781284244571**	✓	
References	HAND OUT	✓	

ESOURCES & SUPPLIES	Virtual Security Cloud Labs* Student Lab Manual (available within the virtual lab environment)* An Internet browser (e.g. Internet Explorer), connection to the Internet. A storage device for your files (Flash Drive)	✓	

PERFORMANCE OBJECTIVES: **Upon completion of this course, the student should be able to do the following:**

- ✓ Identify and prioritize information assets.
- ✓ Identify and prioritize threats to information assets.
- ✓ Define an 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.

INSTRUCTIONAL METHODS:

- ✓ This course will be delivered through the use of lecture, presentations, demonstrations, and limited hands-on experience.

GRADING: Student performance will be evaluated based upon the following criteria: Evaluation of the course will include any class assignments or deliverable exercises, and the projects. The instructor will supply the students with a full grading scheme at the beginning of the course.

Midterm	**100**
Final Exam	**100**
Group Research Propose Plan	**50**
Group Research Project Report	**100**
Group Research Project Presentation	**50**
Class Activity	**200**
Labs	**200**
Total:	**800**

Grading Scheme:

96-100%	A	73-76%	C
90-95%	A-	70-72%	C-
87-89%	B+	67-69%	D+
83-86%	B	61-66%	D
80-82%	B-	< 60%	F
77-79%	C+		

COURSE POLICIES: **Late and Incomplete Deliverables:**

- 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.

ATTENDANCE: Students are required to be prepared and attend all the online sessions threaded discussions. The attendance policy is strictly enforced, and poor attendance may adversely affect your final grade due to class assignments.

MAKE-UP WORK: There will be no makeup or early examinations and late assignments will not be accepted.

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 student'' 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.

STUDENT ACADEMIC APPEALS PROCESS: Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, error, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

ADA STATEMENT: Students with disabilities, who believe they may need an academic adjustment in this class, are encouraged to contact Disabled Student Services as soon as possible to better ensure receipt of timely adjustments.

MIDTERM & FINAL EXAM: Test exam is during the 8th 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.

(The class schedule is tentative and subject to change as circumstances dictate)

WEEK #	DATE	TOPIC	*Reading Assignment/ Computer Lab Topic/Online Module*
Week 1	1/23/2023	Course Introduction & Requirements/ Overview of Syllabus and Course Orientation / Information Systems Security	Week 1-Chapter 1
Week 2	1/30/2023	Emerging Technologies Are Changing How we live	Week 2-Chapter 2
Week 3	2/6/2023	/Risks, Threats, and Vulnerabilities	Week 3-Chapter 3-Due Group Research Paper Topic
Week 4	2/132023	The Drivers of the Information Security Business	Week 3-Chapter 4
Week 5	2/20/2023	Networks and Telecommunications	Week 5-Chapter 5
Week 6	2/27/2023	Access Controls	Week 6-Chapter 6
Week 7	3/6/2023	Cryptography	Week 7-Chapter 7
Week 8	3/13/2023	**Midterm**- Malicious Software and Attack Vectors	Week 8-Chapter 8-**Due Group Research Proposal-Midterms covers Chapters 1-7 and Labs 1-5**
Week 9	3/20/2023	Security Operations and Administration	Week 9-Chapter 9
	3/27/2023	**Spring Recess-No Classes**	
Week 10	4/3/2023	Auditing, Testing, and Monitoring	Week 11-Chapter 10
Week 11	4/10/2023	Contingency Planning	Week 12-Chapter 11
Week 12	4/17/2023	Digital Forensics	Week 13-Chapter 12
Week 13	4/242023	Information Security Standards	Week 14-Chapter 13
Week 14	5/1/2023	Information Systems Security Education and Training/Certifications	Week 15-Chapter 14
Week 15	5/82023	**Group Research Paper Presentation**	Due Group Research Paper/Presentation
Week 16	5/15/2023	**Final Exams Week**	**Final Exam Covers 8-14, and Labs 6-10**

GO TOROS!

Group Lab Assignments

Lab	LAB 1: EXPLORING THE SEVEN DOMAINS OF A TYPICAL IT INFRASTRUCTURE
Lab	LAB 2: PERFORMING A VULNERABILITY ASSESSMENT
Lab	LAB 3: PERFORMING PACKET CAPTURE AND TRAFFIC ANALYSIS
Lab	LAB 4: APPLYING USER AUTHENTICATION AND ACCESS CONTROLS
Lab	LAB 5: USING ENCRYPTION TO ENHANCE CONFIDENTIALITY AND INTEGRITY
Lab	LAB 6: ASSESSING COMMON ATTACK VECTORS
Lab	LAB 7: IMPLEMENTING AN IT SECURITY POLICY
Lab	LAB 8: IMPLEMENTING SECURITY MONITORING AND LOGGING
Lab	LAB 9: CONFIGURING BACKUP AND RECOVERY FUNCTIONS
Lab	LAB 10: PERFORMING INCIDENT RESPONSE AND FORENSIC ANALYSIS

Technology Requirements

Computer:
You must have access to a reliable computer for this course. If you are on campus, and do not have a laptop, you can check out a laptop from the IT User Services Help Desk via Technology Checkout Program. In addition, the CSUDH Toro Lab offers on campus access to workstations with a wide variety of commonly used software.

Visit the CSUDH Academic Technology Online Courses Technical Requirements page for more information on technology requirements.

Email:

All email communications from this course will go through your Toromail. Toromail is the CSUDH student email system.

Internet and Campus Wireless Network:
You must have Internet access to participate in this course. If you are on campus, connect your laptop and mobile device to the internet using the eduroam campus wireless network.

Office 365:
Course work will require you to submit work in Word format (.docx files). Active CSUDH students have access to Office 365 (Word, Excel, PowerPoint) for personal desktop and laptop computers at no cost.

Blackboard Learn

You may access the course through Blackboard Learn https://toro.csudh.edu. You have the flexibility in an online course to study and participate according to your work and personal schedule within each week of study. However, you must still complete assignments by their required due dates.

Your challenge is to dedicate the required time for study within your personal schedule. This syllabus, including the schedule and due dates, should support you in managing time effectively. Marking your study and your online discussion time in your personal calendar also will help.

As part of your personal schedule, make sure you check the Announcements and my Online Office several times a week so that you can see if I have posted any new information about the course.

LockDown Browser

Tests in this course will use the Respondus LockDown Browser. This is a specialized web browser which temporarily blocks access to other applications on your computer while you take a Lockdown Browser required test on Blackboard. Tests using LockDown Browser will include the text, "requires LockDown Browser."

Click here to download Respondus LockDown Browser for Mac and Windows. If you are on campus, LockDown Browser is available on computers found in the second and third floor of the library (south), as well as, on the accessibility computers found in the ToroLab.

View this short video for a general overview of LockDown Browser. Watch this video to view the install and LockDown Browser test taking process.

Note: The webcam feature in LockDown Browser, known as Respondus Monitor, will not be used.

Zoom

This course will use Zoom web conferencing software for online office hours. Go to the Zoom download page to download and install the Zoom Client for Meetings on your desktop or laptop. Zoom is also available for mobile and tablet devices on the App Store (iOS) and Google Play (Android). Visit the CSUDH Academic Technology Tutorials page for information on using Zoom.

View this short video for a general overview of Zoom.

Special Needs

Online courses are required to meet ADA accessibility guidelines. This means that all aspects of the online learning experience are accessible. Please let me know if you have adaptive software and hardware to assist you with taking this course or if you have any specific needs I should be aware of. The CSUDH Student Disability Resource Center (SdRC) is available to assist you during this course. The SdRC is available at (310) 243-3660 and can be reached by email at dss@csudh.edu.

Technical Help

If you need technical help, refer to the following resources:

Login Issues:
For login issues related to Blackboard, Toromail and MyCSUDH, contact the IT Help Desk at (310) 243-2500, option 1. You can also create an online service ticket for login support.

The IT Help Desk also offers walk-in support. Visit the first floor of the library (north), C-108, for in-person help.

Password Resets:
CSUDH offers an easy, self-service password reset service at https://password.csudh.edu/. For additional assistance with password resets, contact the IT Help Desk.

Blackboard Issues:
For issues or questions with Blackboard, contact the CSUDH Blackboard Support line at (310) 243-2500, option 2. You can also create an online service ticket for Blackboard support.

Need Help with Using Blackboard?

If you are new to Blackboard or unfamiliar with a specific feature of Blackboard, CSUDH Academic Technology offers a series of PDF and video-based tutorials. Visit the CSUDH Academic Technology Tutorials page for more information.