

CIS 4385 -INTRODUCTION TO INFORMATION SECURITY SYSTEMS

CIS 4385 – Fall 2020 (CRN = 12089)

Course Instructor: Godwin Udo, Ph.D., CFPIM

Office Number: Room 246, College of Business

E-MAIL: gudo@utep.edu

URL: <https://academics.utep.edu/Default.aspx?tabid=70104&ID=gudo>

Course Description:

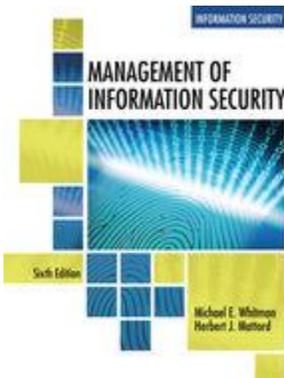
Information systems must be protected from hackers and crackers trying to break into the systems and immobilize e-businesses and other sites using, for example, denial of service attacks. Electronic business transactions and other forms of online communications necessitated the need for security, integrity, and privacy of our data and communication resources. Increasingly, both internal and external computer and network threats motivate the need for implementing cost-effective security apparatuses to protect our information and information systems assets. The course introduces students to the theory and practice of security, aspects of information systems security such as access control, hacks and attacks, systems and program intrusion detection, cryptography, networks and distributed systems security, worms and viruses, and internal secure applications. Students explore key security threats, solutions and legal issues, and implement network security tools in hands-on lab exercises. Upon completion, the student will have a better understanding of computer and network security issues.

Text/Materials:

Text: Management of Information Security, **6th Edition, 2019**, by Michael E. Whitman and Herbert J. Mattord; Cengage Learning, 2019.

ISBN-10: 1-337-40571-X

ISBN-13: 978-1-337-40571-3



Teaching Methods:

1. Lectures: Important material from the textbook and Powerpoint
2. Discussion board topics and responding to posted discussion
3. Assignments: End of chapter review questions (RQ).
4. Exams: Six learning assessments (Exams) will be given

Course Objectives:

In this course, student will systematically study the fundamental principles of computer system security, including authentication, access control, capability, security policies, sandbox, software vulnerabilities, and web security. The

course emphasizes "learning by doing" and requires students to conduct a series of lab exercises. Through these labs, students can enhance their understanding of the principles, and be able to apply those principles to solve real problems. After completion of the course, students should be able to possess the following skills:

- assess the current security landscape, including the nature of the threat, the general status of common vulnerabilities, and the likely consequences of security failures;
- critique and assess the strengths and weaknesses of general cybersecurity models, including the CIA triad;
- appraise the interrelationships among elements that comprise a modern security system, including hardware, software, policies, and people;
- assess how all domains of security interact to achieve effective system-wide security at the enterprise level.
- compare the interrelationships among security roles and responsibilities in a modern information-driven enterprise—to include interrelationships across security domains (IT, physical, classification, personnel, and so on);
- assess the role of strategy and policy in determining the success of information security;
- estimate the possible consequences of misaligning enterprise strategy, security policy, and security plans;
- evaluate the principles of risk and conduct a notional risk management exercise;
- justify the need for business continuity planning and propose how to implement such a plan successfully within a modern enterprise.

Attendance Policy

Because this is an online course, attendance is determined by class participation online. Participation is determined by completion of the following activities:

- Lab assignments which keeps you up to date on information security issues
- Discussion with your peers on the Discussion Boards (grading rubric provided in the “grading information” area of each forum)
- Completing all Module Activities (assignments, quizzes, etc.)
- Completing all Major Assignments and the 6 Exams
- Case Study Analysis

Technology Requirements

Course content is delivered via the Internet through the Blackboard learning management system (LMS). Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Mozilla Firefox and Google Chrome are the most supported browsers for Blackboard; other browsers may cause complications with the LMS. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.

You will need to have or have access to a computer/laptop, scanner, a webcam, and a microphone. You will need to download or update the following software: Microsoft Office, Adobe, Flashplayer, and Windows Media Player. Check that your computer hardware and software are up-to-date and able to access all parts of the course.

If you encounter technical difficulties beyond your scope of troubleshooting, please contact the [Help Desk](#) as they are trained specifically in assisting with technological needs of students.

COURSE REQUIREMENTS:

All assignments are individual assignments. Outsourcing of assignments is not permitted. Submit on-time. There are no make-ups. ** Late work is not accepted. Don't even ask. Period. ** Computer issues (Server/Blackboard/Brower, etc...) are not a valid excuse to miss an assignment. These are minimum course requirements.

Exams (aka learning assessment)

There will be four exams or learning assessments (LA) in all. Each will comprise of three chapters from the text book. All questions will be multiple choice and true/false.

Discussion Boards (DB)

Participants are expected to complete all modules and the discussion boards, quizzes and activities within. Activities explored in this course:

For discussion board you are required to write at about 300 words in your post in response to the provided guiding questions. You also have to reply (at least 100 words for each response) to the entries of at least one of your colleagues for each assigned discussion. Refer to the discussion board and course content for further details on each assignment.

The deadline for postings is 11:59 pm MST every Wednesday. Replies to colleagues are due by 11:59 pm MST every Sunday.

Case Study:

Each student will be assigned a case study and a guideline on how to analyze it.

LATE WORK

Late work will not be accepted. In fact, the submission link will disappear after dateline which is always at 11:59 PM.

DROP POLICY

You can drop this class by contacting the Registrar's Office to initiate the drop process. If you cannot complete this course for whatever reason, please contact me. If you do not, you are at risk of receiving an "F" for the course.

ACCOMMODATIONS POLICY

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that

doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services.

ACADEMIC DISHONESTY

I expect all students to conduct themselves with the highest level of integrity. You have the opportunity throughout your business career to demonstrate your own level of integrity. Similarly, in this class you will have an opportunity to demonstrate academic integrity. The two are inextricably linked. I encourage you to think about the standard you set for business integrity in your career, and to implement that standard with respect to your academic integrity in this class.

Academic dishonesty in any form will not be tolerated. For a definition of academic dishonesty and its consequences, see your student handbook.

For the purposes of this course, academic dishonesty includes, but is not limited to,

- Copying another student’s solution or allowing another student to copy your solution
- Removing or copying pages or problems from exams or quizzes, including those posted on the World Wide Web
- Any other activity that jeopardizes the integrity of this course.

Evaluation:

Grades are not given; they are **EARNED**. You must work for it. Your grade will be based on results rather than on effort—your performance is an indicator of your ability to master the topic. Decide to work **NOW** for the grade you want. Students who keep up with the materials, do all of the assignments, and participate in the learning experiences typically do well.

Your grade will be based on the total number of points that you earn for each assignment group. The weight associated with each of the graded areas, and the total points required to earn the various grades, are shown below.

Assignment Group	Weight
Discussion Boards & Rethreads (5 * 6)	30%
Other Assigned Works	6%
Learning Assessments (9 * 6 Exams)	54%
Case Study Analysis	10%
Total	100%

You will be able to check the status of your grade at any point during the semester by accessing ‘My Grades’ section of the BLACKBOARD classroom.

Your grade will be calculated using the following scale:

Grade	Level of Work	Percentage Range
A	Excellent, distinguished	90 – 100%
B	Very good, above average	80 – 89%
C	Average, Normal	70 – 79%
D	Below Average	60 - 69%
F	Failing	<60%

A grade of "I" (**Incomplete**) will be assigned only in circumstances in agreement with the current UTEP Undergraduate Catalog.

Course Drop Policy:

The last day to drop the course with an automatic "W" is October 30th, **2020**. After this deadline, students will be dropped from a course with a grade of "F".

A grade of "W" can be assigned after the deadline only under exceptional circumstances, and only with the approval of the instructor and the academic dean. In such a case, the student must petition for the "W" in writing and provide the necessary supporting documentation.

Special Accommodations:

Should you have a documented disability and require any auxiliary aids, services, or accommodations, please see me after class or call me in order to discuss your specific needs. If you feel you may have a disability but do not have appropriate documentation, contact the Disabled Student Services Office at 747-5148, go to Room 106E Union, or e-mail: dss@utep.edu. You are welcome to discuss in private with me what is needed for you to feel comfortable and enabled in the class.

COURSE SCHEDULE

The instructor will endeavor to adhere to the course schedule below but does reserve the right to alter course content, class assignments and activities, and/or dates as deemed necessary.

Modules	Learning Unit	Discussion Topics
	Course Information – Watch videos and take syllabus quiz.	
Module 1: (08/24 – 09/06)	Chapter 1: Introduction to Information Security	The 12 categories of threats to the company’s information assets (09/02) (09/06)
	Chapter 2: Compliance: Law and Ethics Exam 1 (09/04)	
Module 2: (09/07 – 09/20)	Chapter 3: Governance and Strategic Planning for Security	Analysis of UTEP information security policy (09/16) (09/20)
	Chapter 4: Information Security Policy Exam 2 (09/18)	
Module 3: (09/21 – 10/04)	Chapter 6: Risk Management: Assessing Risk	Risk Management Process (09/30) (10/04)
	Chapter 7: Risk Management: Treating Risk Exam 3 (10/02)	
Module 4: (10/05 – 10/18)	Chapter 5: Developing the Security Program	Building Effective Security Program (10/14) (10/18)
	Chapter 8: Security Management Models	
	Chapter 9: Security Management Practices Exam 4 (10/16)	
Module 5: (10/19 – 11/01)	Chapter 10: Planning for Contingences;	Security Response Planning (10/28) (11/01)
	Chapter 11: Security Maintenance Exam 5 (10/30)	
Module 6: (11/02 – 11/15)	Chapter 12: Protection Mechanisms	TBA
	Case Study Analysis and Presentations (11/25)	
	Exam 6 (11/20)	