

CSIT 4355 - ENTERPRISE SECURITY

CREDIT HOURS: 3
PREREQUISITES: CSCI 3321 or CSCI 3331 or CSIT 3355.
GRADE REMINDER: Must have a grade of C or better in each prerequisite course.

CATALOG DESCRIPTION

Practical approaches to ensuring the security of information systems. May not be used to satisfy computer science requirements for a major or minor in computer science or computer information systems.

PURPOSE OF COURSE

The purpose of this course is to provide the student with an understanding of tools and techniques employed to assure security in information systems. Legal, ethical, professional, and technical issues will be addressed. Current topics will be explored.

EDUCATIONAL OBJECTIVES

Upon successful completion of the course, students should be able to:

1. Demonstrate an understanding of the computer security field through identification of need, social issues, risk assessment and planning.
2. Demonstrate an understanding of the threats and controls for operating system and network security and to study specific system vulnerabilities.
3. Identify techniques of disaster planning and recovery.
4. Identify the tools and techniques of digital forensics.
5. Describe current topics in the computer security field.

COURSE CALENDAR

This course meets for a minimum of 37.5 lecture contact hours during the semester. Students have significant weekly reading assignments. Students are expected to complete 8-9 homework assignments, and 2-3 periodic exams in addition to the final exam. Students are expected to prepare for any class assignments or quizzes over the material covered in class or in the reading material. Successful completion of these activities requires at a minimum six additional hours of outside of classroom work each week.

CONTENT

HOURS

Introduction and Scope	3
Legal, Ethical, Professional Issues	
Risk Management and Planning	
Personnel, Physical, and Maintenance Security Issues	
Security Assessment	10
Attack Vectors	
Vulnerability Assessment and Audit	
Disaster Planning	

Security Implementation Policy.....	2
Intrusion Prevention, Detection, and Recovery	10
Authentication	
Firewalls.....	10
Architecture	
Components	
Bastion Hosts	
Cryptography	3
Virtual Private Networks	2
Current Topics	2
Exams (plus final).....	3
	TOTAL
	45

REFERENCES

Kim and Solomon, Fundamentals of Information Systems Security, Jones & Bartlett, 2014

Smith, Elementary Information Security, Jones and Bartlett, 2016

Harris, All-in-one CISSP, 7th Ed., McGraw Hill, 2016

Pfleeger, Security in Computing, 5th Ed., Prentice Hall, 2015