

CSC 455 - ENTERPRISE SECURITY

CREDIT HOURS: 3

PREREQUISITES: CSC 321 or 331 or 355.

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.

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