DEPARTMENT: Computer Support Technology  COURSE NO: CST 1220
COURSE TITLE: Information Security Management  CREDITS: 3

CATALOG DESCRIPTION

In this course the student will continue to explore information security management issues, including authentication, virus attacks and prevention, firewalls, intrusion detection and other security devices and topologies. The student will learn to control security risks, identify secure network design, plan for disaster recovery and setup security policies. This course most of the objective in Comptia’s Security + exam.

AUDIENCE

This course is for students and professionals that are responsible for the security of information in their organization, including accountants, computer technicians, managers, administrators and support staff.

FULFILLS MN TRANSFER CURRICULUM AREA(S): Does not apply

PREREQUISITES OR NECESSARY SKILLS/KNOWLEDGE: It is required that the student successfully completes the following courses:
CST 1200 – Introduction to Information Security

LENGTH OF COURSE: 3 lecture hours per week for 16 weeks or the equivalent if delivered via distance learning.

THIS COURSE IS USUALLY OFFERED:
Every other year □  Fall □  Spring X  Summer □  Undetermined □

Four goals are emphasized in courses at Minnesota West Community and Technical College:

1. ACADEMÉIC CONTENT: The student will achieve the knowledge and skill needed in the area of Information Security Management.
2. THINKING SKILLS: The student will have an understanding of the rational, theory and components of Information Security.
3. COMMUNICATION SKILLS: The student will begin to demonstrate appropriate communication techniques in working with the internet and fellow students to complete assignments.
4. HUMAN DIVERSITY – The student will gain self-awareness regarding their feelings towards people of different cultures, value systems and economic status.

Topics to be covered:

1. Components of a secure network
2. Types of viruses and security breaches
3. Types and uses of security devices
4. Detection of security breaches
5. Recovery of information systems
LIST OF EXPECTED COURSE OUTCOMES:
1. Define security terms
2. Identify the purpose and goals of network security
3. Define authentication and types authentication
4. Identify types of information attacks.
5. Identify best practice to mitigate the effect of attacks and malicious code.
6. Define types of remote access
7. Identify secure email practices
8. Define web security.
9. Identify web components
10. Locate information security resources
11. Describe the basic components of a security education program
12. Identify benefits and vulnerabilities of centralized storage services and file shares
13. Identify wireless capabilities and vulnerabilities
14. Identify network hardware devices and capabilities and vulnerabilities
15. Create a plan for a secure network topology.
16. Identify types and capabilities of intrusion detection products
17. Define cryptography and types of cryptography
18. Identify baselines and why they are important to network management
19. Identify physical security components
20. Create a detailed outline for disaster recovery
21. Define computer forensics
22. Describe the computer audit process

LEARNING/TEACHING TECHNIQUES used in the course are:

X Collaborative Learning   X Student presentations
X Creative Projects   X Lecture
X Problem Solving   X Interactive Lectures
X Individual Coaching   X Films/Videos/Slides
X Demonstration   X Labs

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:

X Reading   X Tests   X Individual Projects
X Oral Presentations   X Worksheets   X Collaborative Projects
X Textbook Problems   X Papers   □ Portfolios
X Group Problems   □ Term Papers   X Performance Exams
X Other

The information in this course outline is subject to revision

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or
Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

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