DEPARTMENT: Computer Support Technology  COURSE NO: CST 2600
COURSE TITLE: Fundamentals of Wireless Networking  CREDITS: 3

CATALOG DESCRIPTION
This course is designed to educate the student in the areas of wireless networking technologies and the implementation of those technologies. Emphasis is placed in the areas of design, planning, implementation, operation and troubleshooting.

AUDIENCE
Computer Support Technology, Networking Specialist or Information Assurance students in their second year of their program. This course is for someone whose career goals include becoming a Network or Security Administrator.

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 1500

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. ACADEMIC CONTENT: The student will achieve the knowledge and skill needed in the area of Information Security Administration.
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 socioeconomic status.

Topics to be covered:
1. Wireless Technology Background
2. Wireless Technology Equipment
3. Wireless Site Preparation and Security
4. Managing Wireless Networks
LIST OF EXPECTED COURSE OUTCOMES:
1. Describe a wireless LAN
2. Describe the history of wireless networking
3. Identify the hardware components of a wireless network
4. Design a wireless network topology
5. Describe wireless transmission methods
6. Configure wireless hardware components
7. Configure the client and adaptors for a wireless network
8. Identify antenna types and functions
9. Describe wireless security
10. Perform a site survey for a wireless network
11. Install a wireless network
12. Describe the duties of a wireless network administrator

LEARNING/TEACHING TECHNIQUES used in the course are:

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

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:

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

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.
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