CIS 2154

Division: Career and Technical Education
Department: Computer Information Systems
Course: CIS 2154
Title: Internetworking II
Catalog Description:

This course will introduce students to the concepts of Local Area Network (LAN) and Wide Area Network (WAN) management. Technologies, protocols, and methods for improving network communications will be discussed. Students will acquire the skills and knowledge necessary to administer LANs and WANs in real-world environments.

General Education Requirements: N/A
Semesters Offered: TBA
Credit/Time Requirement: Credit: 3; Lecture: 3; Lab: 0
Clock/Hour Requirements: 45
Offered for Non-Credit: No
Prerequisites: CIS2153

Justification:

The program advisory committee recommends this course to round out the skills-set that students in this program will need for successful employment in network administration. This course prepares students for job readiness at graduation and/or transfer to some advanced training institutions.

Student Learning Outcomes:

Through Successful Completion of this course, students will:

- Understand and describe interconnectivity between LANs and WANs
- Understand and describe physical transmission options
- Identify proper use and implementation of network transmission equipment
- Understand and be able to explain LAN and WAN protocols
- Understand and describe the implications of TCP/IP in an historical and practical perspective
- Understand and be able to describe WAN transport methods
- Understand and be able to describe ATM technologies
- Understand and be able to describe the impact and proper implementation of wireless technologies
- Understand the implications of convergence as it pertains to integrating voice, video, and data
- Design LAN and WAN systems based on industry standards and proper techniques.

Content:

Course objectives will be accomplished by providing students with learning experiences in the following areas:

- Interconnectivity between LANs and WANs

- Physical Transmission Options
- Network Transmission Equipment
- LAN and WAN Protocols
- TCP/IP Past, Present, and Future
- WAN Transport Methods
- ATM Technologies
- Wireless Technologies
- Integrating Voice, Video, and Data
- LAN and WAN Design

General Education Outcomes:

Key Performance Indicators:

Student grades will be based on a combination of lab exercises(5-25%), quizzes (5-25%), tests (10-50%), and a final exam or project (20-50%).

Representative Text and/or Supplies:

Palmer, Sinclair,*A Guide to Designing and Implementing Local and Wide Area Networks*, Current Ed., Thomson

Optimum Class Size: 16
Maximum Class Size: 16

Signatures:

I hereby submit this course syllabus:

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I hereby find this course consistent with the goals and resources of the Computer Information Systems Department:

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Michael P. Medley, MBA, Assistant Professor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

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Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

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Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)