Networking IV

Networking IV is a one-credit course designed to provide students with skills needed to design and support computer networks. Students learn technical skills and soft skills needed to succeed in entry-level networking professions. The prerequisite for this course is Networking III.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Advanced Networking

Students will:

1. Design an Internet Protocol (IP) addressing scheme to meet local area network (LAN) requirements.

2. Analyze network devices to determine the impact of network devices on LAN performance.

3. Develop an equipment list to meet LAN design requirements.

4. Construct a prototype network incorporating elements of network design.

5. Use research results to assist in evaluating LAN, wide area network (WAN), and virtual local area network (VLAN) troubleshooting using a structured methodology and the Open System Interconnection (OSI) model.

Advanced Network Design

6. Evaluate customer requirements to determine networking design needs.

7. Design a simple Internetwork using available technology.

8. Analyze client software to determine the impact of applications on network design.

9. Develop a customer proposal presentation, including installing and configuring a prototype Internetwork and selecting and upgrading network software.

10. Defend the network design prototype to verify customer requirements have been met.

Career Opportunities

11. Determine career and entrepreneurial opportunities, responsibilities, and educational and credentialing requirements related to network designing.

Alabama Course of Study: Career and Technical Education