Networking II

Networking II is a one-credit course designed to provide students with skills involving hands-on learning by installing a router, configuring a server, and performing disaster recovery. This course includes a strong emphasis on proper safety practices and industry ethics. The prerequisite for this course is Networking I.

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. Describe the structure of the Internet and how it affects communication between hosts, including installing, configuring, and troubleshooting network devices for Internet and server connectivity.

2. Design a basic wired infrastructure to support network traffic, shared resources, and Web services.

3. Utilize mathematics skills to implement basic wide area network (WAN) connectivity using Telco services.

4. Justify the use of Network Address Translation (NAT) and Port Address Translation (PAT).

5. Describe the Open System Interconnection (OSI) model and the process of encapsulation.

Troubleshooting and Maintenance

6. Demonstrate proper disaster recovery procedures.

7. Perform server backups.

8. Interpret various Transmission Control Protocol (TCP) and Internet Protocol (IP) messages.

9. Isolate system failures to improve network performance.

10. Utilize an organized, layered procedure to troubleshoot problems.

Security

11. Utilize research results to assist in selecting a network monitoring system.

12. Evaluate network security considerations for improved network security.

Alabama Course of Study: Career and Technical Education

Career Opportunities

13. Determine career and entrepreneurial opportunities, responsibilities, and educational and credentialing requirements related to small to medium business or Internet Service Provider (ISP) professions.