

Computer Information Systems Department Course Outline

NTWK 2084 NETWORK HARDWARE SUPPORT (On Demand)

Catalog Description

This course provides knowledge of routers, switches, hubs, and other network specific hardware. This course will assist students in preparing for the ICND1 exam (CCENT) and the CCNA exam which are industry recognized certifications. This course includes both theory and application and uses Cisco routers and switches. (Note: Preparation for the ICND1 exam (CCENT) should include semesters 1 and 2 of the Netacad Courses (NTWK 2014 and NTWK 2084). Preparation for the CCNA exam should include all four semesters of CCNA training (NTWK 2014, NTWK 2084, NTWK 2214, NTWK 2224)

Prerequisites

NTWK 2014 Networking and Information systems

Credit Hours/Contact Hours/Load Hours

4/4/4

Target Audience /Transferability

The target audience includes but is not necessarily limited to the following:

- Students pursuing a career in Networking or other computer-related field.
- Students who wish to enhance their understanding of networking hardware.
- Community members or Networking professionals who wish to expand their understanding of networking hardware.

This course does not transfer to the University of Arkansas, Fayetteville.

Student Learning Outcomes

Students completing this course will:

- Describe the functions of the hierarchical network design model.
- Use VLSM to define logical network topologies.
- Identify and correct common network problems using a layered model approach
- Configure and manage Cisco switches.
- Configure and manage VLANS
- Configure 802.1q trunking
- Configure inter-VLAN routing
- Configure RIP v2
- Configure OSPF v2 & OSPF v3
- Configure NAT, PAT
- Configure DHCP
- Configure NAT
- Configure a router from the GUI
- Configure ACLs with IPv4 and IPv6
- Use Packet Tracer for network design and troubleshooting

Forms of Assessment

On-line chapter quizzes, hands-on skills application quizzes, hands-on lab assignments, case study, comprehensive on-line final exam and a comprehensive hands-on final exam will be required.

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