

ITNW 2413

Networking Hardware

INSTRUCTOR: Tawny Lamb

OFFICE LOCATION: Room 509

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PREREQUISITE: None.

TEXTBOOK USED: *CCNA Guide to Cisco Networking*, Fourth Edition by Cannon, Cudle, and Chiarella. Course Technology. ISBN 978-1-4188-3705-1.

OTHER MATERIALS: a computer with Internet access running MS Windows XP or later, a pen drive (USB) or CDs for storing work, pens and paper for journal. (The college computer labs are available.)

HOURS: Four semester hours of college credit is given. Three lecture hours. Two lab hours.

COURSE DESCRIPTION: Maintain network hardware devices. Topics include network cables, servers, and workstations; network connectivity devices such as routers, hubs, bridges, gateways, repeaters, and uninterruptible power supplies; and other networking hardware devices.

This class is not intended for transfer to a four-year institution.

LEARNING OUTCOMES: Students will be able to:

- I. Describe how networks work:
 - A. Describe purpose and functions of devices
 - B. Use the OSI model
 - C. Describe purpose and operation of protocols in the OSI and TCP models
 - D. Interpret network diagrams
- II. Configure, verify and troubleshoot a switch with VLANs and interswitch communications
 - A. Select appropriate media, cables, ports, and connectors to connect switches to network devices
 - B. Explain the technology and media access control method for Ethernet networks
 - C. Perform and verify initial switch configuration tasks and verify status
 - D. Troubleshoot issues with switch communications
- III. Implement an IP addressing scheme and IP Services to meet network requirements
 - A. Implement static and dynamic addressing services for hosts on a LAN
 - B. Explain operation and benefits of using DHCP and DNS
 - C. Describe IPv6 addresses
 - D. Identify and correct common problems associated with IP addressing and host configurations
- IV. Configure, verify, and troubleshoot basic router operation and routing
 - A. Describe basic routing concepts
 - B. Connect, configure, and verify operation status of a device interface
 - C. Verify device configuration and network connectivity

- D. Manage IOS
- E. Troubleshoot routing issues

ATTENDANCE: Students are expected to be present for all class meetings (see “Attendance” in the student handbook for Temple College) and are responsible for any material covered and any assignments made in the case of an absence. If you quit attending class, you should drop the course. I reserve the right to drop any student who has missed four or more classes.

EXPECTATIONS: If you must miss a due date, notify me BEFORE that date to make arrangements for turning in assignments. If you do not notify me in advance, **no late work will be accepted** (this includes exams).

You will be expected to conduct yourself in a professional manner at all times in this class. Professionalism in the classroom includes but is not limited to:

- Punctuality (The classroom doors may be locked once the lecture or classroom course content begins. This is for the safety of the students and the instructor. Students may not be allowed late admittance into the class.)
- Civility and courtesy towards everyone in the class

EVALUATION: Final grades will be made up of Tests, Labs, and Homework as follows:

Test Average	= 50% of Final Grade
Lab Assignments	= 30% of Final Grade
Review Questions	= 20% of Final Grade

GRADING SCALE: Final grades will be assigned as follows:

90 and above	= A
80 to 89	= B
70 to 79	= C
60 to 69	= D
Below 60	= F

SCHOLASTIC INTEGRITY: Please refer to *Scholastic Integrity* in the Student Handbook, page 10. Your work **MUST** be your own and **MUST NOT** be copied or shared with other students. Scholastic dishonest will not be tolerated. If you are caught cheating on any work, you will be dropped from the class and receive an “F” for the entire course.

DEPARTMENT POLICY: It is the policy of the Computer Information Systems department that no unauthorized personnel are allowed in any of the computer rooms (such as a child of a student taking a class). An authorized person is a student enrolled in a computer information systems class. Violation of this policy could result in you losing your lab privileges.

Instructor reserves the right to modify course requirements at any time based on the professional judgment of the instructor.