

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 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 or missed two or more due dates.

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).

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

Written Test Average = 40% of Final Grade
Router Configuration Exam = 15% of Final Grade
Lab Assignments = 25% 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

ACADEMIC INTEGRITY: Academic integrity will be expected of students at all times. Your work must be your own, **not shared with or copied from** other students. Please refer to the section on academic integrity in the TC Student Handbook for further details.

DISRUPTIVE BEHAVIOR: Disruptive behavior will not be tolerated. Depending on the situation the student may be warned once about their negative behavior. Continued disruptive behavior may result in the student being asked to leave the class. Once removed, the only way to return to class is with a public apology in front of the rest of the class. See the Student Handbook for a more detailed discussion of disruptive behavior.

CLASSROOM ETIQUETTE: Pagers and cell phones will be turned off or set to vibrate during class. Please show courtesy to the class by restricting conversation to in-class topics, and raise your hand to gain attention when asking a question or raising a point of discussion.

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

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.