



Routers: ITNW2312 Online
Course Syllabus: Spring 2021

“Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed.”

Instructor: Sebastian Barron

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	5-6 PM	5-6 PM	5-6 PM	5-6 PM	NA	NA

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description: 3 credit hours.

Lecture/Lab/Clinical: Two hours lecture and two hours of lab each week.

Router configuration for local area networks and wide area networks. Includes Internet Protocol (IP) addressing techniques and intermediate routing protocols.

Prerequisite(s): None.

Student Learning Outcomes: Upon completion of this course, the student should be able to

- Install, configure, and manage switches, routers, and subnets
- Create and apply access control lists in TCP/IP and multi-protocol internetworks

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- Configure variable-length subnet masking and intermediate routing protocols

SCANS Skills:

- Acquire and evaluate information
- Organize and maintain information
- Interpret and communicate information
- Use computers to process information
- Participate as a member of a team: Contribute to group effort
- Monitor and correct performance: Distinguish trends, predict impact on system operations, diagnose system performance, and correct malfunctions
- Improve or Design Systems: Suggest modifications to existing systems and develop new or alternative systems to improve performance
- Select technology: Choose procedures, tools, or equipment, including computers and related technologies
- Apply technology to task: Understand overall intent and proper procedures for setup and operation of equipment
- Reading; Locate, understand, and interpret written information in prose and in

documents such as manuals, graphs, and schedules

- Arithmetic: Perform basic computations; use basic numerical concepts such as whole numbers, etc
- Listening: Receive, attend to, interpret, and respond to verbal messages and other cues
- Problem Solving: Recognize problems and devise and implement plan of action
- Seeing Things in the Mind's Eye: Organize and process symbols, pictures, graphs, objects and other information
- Knowing how to learn: Use efficient learning techniques to acquire and apply new knowledge and skills
- Reasoning: Discover a rule or principle underlying the relationship between two or more objects and apply it
- Responsibility: Exert a high level of effort and persevere toward goal attainment
- Self-Esteem: Believe in own self-worth and maintain a positive view of self
- Social ability: Demonstrate understanding, friendliness, adaptability, empathy, and politeness in group settings
- Self-Management: Assess self accurately, sets personal goals, monitor progress, and exhibit self-control
- Integrity/Honesty: Choose ethical course of action.

Evaluation/Grading Policy:

- Homework Assignments 40%
- Chapter Review Tests 60%

Required Instructional Materials:

The Illustrated Network – How TCP/IP Works in a Modern Network (1st Edition), author Walter Goralski

Publisher: Morgan Kaufman
ISBN Number: 978-0-12-374541-5

Optional Instructional Materials: None.

Minimum Technology Requirements: A windows machine is required for this course.

Required Computer Literacy Skills: Students should understand how to access the internet via a web browser and perform basic application and file management tasks.

Communications: Email will be the official communication channel used in this course. You can reach me by sending an email to sbarron@ntcc.edu. I will respond to all email within a 24-hour period

Institutional/Course Policy: *Online Access:* Students must login to the class during the first week of the semester and post to the discussion board through BlackBoard (see first assignment). Submission of assigned work will count as communication.

- *Class Attendance:* Participation on the class website will constitute “attendance.” Withdrawal requests MUST BE initiated by the student. The last day for a student to drop a

course with a grade of "W" is **Thursday, April 08, 2021**. Requests for withdrawal become official and effective the date they are received in the records office. Students who stop coming to class (that is, stop participating on the class website) but fail to drop the course will *earn* an "F" for the course.

No late discussion postings will be accepted. **Homework assignments can always be submitted early. Please recognize part of Internet technology is the age old adage of "not if the technology is going to fail, but when!" therefore, don't wait until the last minute to complete and submit your work!**

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term): On the due dates listed below, the previous week's assignments and chapter test will close and be unavailable.

Due Date.....	Chapter Assigned
January 25.....	Chapter 1: Protocol and Layers
February 1	Chapter 2: TCP/IP Protocols and Devices
February 08.....	Chapter 3: Network Link Technologies
February 15.....	Chapter 4: IPv4 and IPv6 Addressing
February 22.....	Chapter 5: Address Resolution Protocol
March 01	Chapter 6: IPv4 and IPv6 Headers
March 08.....	Chapter 7: Internet Control Message Protocol
March 15.....	Chapter 8: Routing
March 22	Chapter 9: Forwarding IP Packets
March 29	Chapter 10: User Datagram Protocol
April 05.....	Chapter 11: Transmission Control Protocol
April 12.....	Chapter 12: Multiplexing and Sockets
April 19.....	Chapter 13: Routing and Peering
April 26	Chapter 14: IGPs: RIP, OSPF, and IS-IS
May 02	Chapter 15: Border Gateway Protocol