Syllabus

College of Computing and Computer Engineering Department of Computer Science

CSCE 3530: Introduction to Computer Networks Fall 2025 Section 501

Instructor Information

Instructor: Dr. James E. Freedle II
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Office Hours: TBD

Course Description, Structure, and Objectives

This course covers study of problems and limitations associated with interconnecting computers by communication networks. ISO reference model, architecture of circuits, message and packet switching networks, network topology, routing, flow control, capacity assignment, protocols, coding and multiplexing. The class will be an in person face to face class.

Course Learning Outcomes

Students will be able to:

- 1. Understand a conceptual view of the role of computers in communications.
- 2. Understand communication protocols in the internet.
- 3. Be able to do fundamental network programming.
- 4. Understand different network architecture.
- 5. Recognize the role of application protocols.
- 6. Understand different routing and forwarding protocols.

Course Requirements and Assignments

All class lecture presentation slides, assignments, and projects are available in Canvas. All assignment submissions will be uploaded to Canvas, while exams will be proctored in class. Emailing submissions to the TA or Instructor will not be accepted. Please check the Canvas Calendar and syllabus for due dates. Weekly Tasks:

Each week, we will cover a chapter, and each module will include assignments, labs, participation, and challenge activities. All submissions are due by Sunday at 11:59 pm. Late assignments will be accepted within two days of the due date with a 10%/day penalty. The TA will handle all grading, so direct any grade-related questions to the TA

How to Succeed in this Course

Class Meeting Time: Tuesday and Thursday 11:00 am to 12:20 pm in FRLD 480

Office/Student Hours: Tuesday and Thursday 1:00 pm to 4:00 pm and by Appointment (via Microsoft Teams)

You may contact me via Canvas or UNT email, but it must be through the UNT email account, no personal accounts. You may also contact me through Microsoft Teams, either through chat or audio call (as I do not have an office phone). I receive a lot of email so give me 1 to 2 business days for a response, however if you see me

online and available in Microsoft Teams, you can certainly contact me with any quick questions. Office hours offer you an opportunity to ask for clarification or find support with understanding class material. Come and visit me! I encourage you to connect with me and/or my TA for support. Additional office hours, in person and virtually, may be offered as the semester concludes. Your success is our goal.

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website (https://studentaffairs.unt.edu/officedisability-access). You may also contact ODA by phone at (940) 565-4323.

UNT strives to offer you a high-quality education and a supportive environment, so you learn and grow. As a faculty member, I am committed to helping you be successful as a student. To learn more about campus resources and information on how you can be successful at UNT, go to unt.edu/success and explore unt.edu/success and go to scrappysays.unt.edu.

Supporting Your Success and Creating an Inclusive Learning Environment

Every student in this class should have the right to learn and engage within an environment of respect and courtesy from others. We will discuss our classroom's habits of engagement and I also encourage you to review UNT's student code of conduct so that we can all start with the same baseline civility understanding (<u>Code of Student Conduct</u>) (<u>https://policy.unt.edu/policy/07-012</u>).

Required/Recommended Materials

Required Textbook: This course has digital components. To fully participate in this class, students will need internet access to reference content on the Canvas Learning Management System. If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at Learn Anywhere. There is no text required for the course – all resources are online.

Optional Textbooks:

<u>Network Defense Essentials</u> by EC Council (Content provided in modules with permission of EC council - please do not go buy the course)

Computer Networking: A Top Down Approach by Jim Kurose and Keith Ross

<u>CompTIA Network+ Certification All-in-One Exam Guide, Eighth Edition</u> (Exam N10-008) by Scott Jernigan and Mike Meyers

Prerequisite (should have a grade of C or better):

• MATH 1650: Pre-Calculus and CSCE 1010: Discovering Computer Science (For CSE Majors Only)

Course Requirements/Schedule

Here is the schedule as planned. Depending upon the circumstances the schedule is subject to change and the assignments will be updated in Canvas.

Date	Торіс	Assignment
8/19, 21	Course Overview	Weekly Quiz & Assignment
8/26, 28	Network Foundations	Weekly Quiz & Assignment
9/2, 4	Ethernet Technologies	Weekly Quiz & Assignment
9/9, 11	Physical Deployment	Weekly Quiz & Assignment
9/16, 18	IPv4 Fundamentials	Weekly Quiz & Assignment
9/23, 25	Routing Protocols	Weekly Quiz & Assignment
9/30, 10/2	Services & Naming	Weekly Quiz & Assignment
10/7, 9	Security Fundamentals	Weekly Quiz & Assignment
10/14, 16	Switching Essentals	Weekly Quiz & Assignment
10/21, 23	IPv6 & WAN Technologies	Weekly Quiz & Assignment
10/28, 30	Virtualization & Cloud	Weekly Quiz & Assignment
11/4, 6	Device Integration	Weekly Quiz & Assignment
11/11, 13	Operations & Protection	Weekly Quiz & Assignment
11/18, 20	Software-Defined Networking	Weekly Quiz & Assignment
11/25, 27	Thanksgiving Break	No Assignments Due
12/2, 4	Network Simulation Tools	Weekly Quiz & Assignment
Finals Week	Final Exam during scheduled Exam period, will be posted in Canvas	Final Exam (Comprehensive)

You will be notified by Eagle Alert if there is a campus closing that will impact a class and the calendar is subject to change, following the Campus Closures Policy (https://policy.unt.edu/policy/15-006).

Assessing Your Work

The final grade will be assessed using the following grade distribution:

Group	Weight
Administrative Quizzes	9%
Academic Quizzes	30%
Exercises	21%
Programs	24%
Final Exam	16%
Total	100%

Grading scale:

A = 90% to 100% B = 80% to <90% C = 70% to <80%

D = 60% to <70%

F = <60%

Course Policies

Submission Policy

Students are responsible for submitting the correct assignments in the correct assignment location in Canvas. If you have any questions or concerns about your submission, please work with your instructor or TA to ensure that the correct file(s) is/are submitted.

Al Course Policy

In this course, the use of GenAI (Generative Artificial Intelligence) tools is not permissible for any coding assignments. No matter the approach, any attempt to represent GenAI output as a student's own work will be considered fabrication, cheating, and/or academic dishonesty as determined on a case-by-case basis. Using GenAI tools to proofread and grammar-check is permitted..

Make-up Work Policy

Missed exams or assignments due to illness or in the event of an unavoidable absence, make-up work will only be allowed by providing the instructor with a physical copy of a signed doctor's note or any proof in the event of of an unavoidable absence. See the UNT Attendance Policy for more information.

Academic Integrity and Collaboration Policy

Check UNT policy 06.003 that defines the breaches of academic integrity: from Cheating, Plagiarism, Forgery, Fabrication, Facilitating Academic Dishonesty,... etc.

Cheating of any sort will not be tolerated in this course. All submissions must be your own original work. Taking information or code from the internet or other students is considered a breach of academic integrity. Failure to adhere to these strict standards will be cause for disciplinary action that could be as severe as expulsion from the university. If it is determined a student cheated on any assignment in this course they will receive an F for this final course grade and an academic integrity report will be filed with the Office of Academic Integrity. Further, UNT is now maintaining a database recording any acts of academic dishonesty that is available to employers. For more information see the UNT Student Academic Integrity Policy.

Honor Code: "I commit myself to honor, integrity, and responsibility as a student representing the University of North Texas community. I understand and pledge to uphold academic integrity as set forth by <u>UNT Student Academic Integrity Policy, 06.003</u> (https://policy.unt.edu/policy/06-003). I affirm that the work I submit will always be my own, and the support I provide and receive will always be honorable."

Attendance and Participation

Student attendance will be recorded. Every student who misses a class or a lab is responsible to learn the materials discussed. It is the student's responsibility to obtain the homework assigned on the missed class. I have great respect for students who are balancing the demands of their coursework with the responsibilities of caring for family members. If you run into challenges that require you to miss a class, please contact me or my TA. There may be some flexibility we can offer to support your academic success.