# Department of Computer Science and Engineering Introduction to Computer Networks

CSCE 3530.501 - Spring 2025

Class Timings: Wednesday, 6:30 PM – 9:20 PM, Frisco Landing, FRLD 228

Instructor: Faridul Islam, Email: faridul.islam@unt.edu

**Office Hours:** Wednesday 8:00 AM to 10:00 AM and Friday 6:00 PM – 8:00 PM [by appointments]. Office hours will be online with Zoom, https://unt.zoom.us/j/82454588018

#### TA/IA:

Sanjana Nuguri, Email: sanjana.nuguri@unt.edu, Help Hours: TBD

**Course Webpage:** All the course related material will be posted on the course webpage which is available through Canvas (<a href="https://learn.unt.edu">https://learn.unt.edu</a>).

**Textbook:** *Computer Networking: A Top-Down Approach featuring Internet* 7<sup>th</sup> edition, Kurose and Ross, Addison Wesley, ISBN-13: 9780133594140.

**Catalog Description:** Introduction to data communications; asynchronous, synchronous, networks and current technology.

Prerequisite(s): CSCE 3600.

#### **Topics:**

- Computer Networks and the Internet
- Application Layer
- Transport Layer
- The Network Layer: Data Plane
- The Network Layer: Control Plane
- The Link Layer

#### **Course Outcomes:**

- Understand a conceptual view of the role of computers in communications.
- Understand communication protocols in the Internet.
- Be able to do fundamental network programming.
- Understand different network architecture.
- Recognize the role of application protocols.
- Understand different routing and forwarding protocols.

#### **Grading:**

Class Activity	5%
Homework	15%
Programming/Lab assignments	15%
Quizzes	15%
Midterm Exam	25%
Final Exam	25%

**Class Activity:** There will be several class activities during the class session that will reinforce the concepts that we learned in the class. These class activities will be scheduled during the class timing.

**Quizzes:** There will be several pop quizzes given throughout the semester. The pop quizzes can be given any time during the class. These will be to reward students who consistently attend the class but will be more than just attendance points.

**Exams:** There will be a midterm exam and a final exam. The exams are closed books and closed internet. Mobiles phones are not allowed and browsing the internet is not allowed. Exams will include material from the modules, the readings, homework, and labs and should be taken individually and not as a team.

- **Midterm Exam:** Wednesday, March 5<sup>th</sup>, 2025, 6:30 PM 8:30 PM
- **Final Exam\*:** Wednesday, May 7<sup>th</sup>, 2025, 6:30 PM 8:30 PM.

\*Note: Final exam time is based on the university registrar schedule for Spring 2025 Finals. So, no excuse will be accepted for any conflict. If students have any conflict, they need to contact the faculty to resolve their conflicts.

Missing Classes, Assignments, or Exams: Attendance at all exams, quizzes, and class activities is mandatory. Throughout the semester, a student may miss classes, assignments, quizzes, or exams due to many reasons. Most of the reasons will not be accepted as an "excused" absence. Assignments, quizzes, or exams can be made-up only under extraordinary circumstances and only when notification is given to me before the assessment, quiz, or exam is administered. A no-show for an assessment, quiz or exam without prior notification and a verifiable excuse (appropriate official documentation) will result in a grade of zero (0) for that assessment, quiz, or exam.

**Submission:** All assignments, shall be turned in electronically using the Canvas. Any work turned in late for the 0-23 hours will receive a **50%** penalty and 24-48 hours will receive **75%** penalty, and it **will not be accepted after 48 hours**. According to department policy, we are unable to accept submissions via email.

Students are responsible for submitting the correct assignments (i.e., uploading the proper files) for each applicable assignment submission on Canvas. In certain cases, when an assignment is submitted on time but to an incorrect assignment location (e.g., submitting Homework 03 to the Homework 02 Dropbox on Canvas, or submitting the wrong files), the assignment will not be accepted and will receive a grade of **zero** (0) if the due date has passed. If you have any questions or concerns about your submission, please work with your instructor, TA, or Peer Mentor to ensure the correct file(s) are submitted.

Grade Dispute: It is the student's responsibility to check any given grade and make complaints within at most 7 calendar days after the grades are announced. Grades will be posted on Canvas throughout the semester to provide an ongoing assessment of student progress, but typically about 7-12 calendar days after the assignment was due. Grading dispute should first go to the original grader (i.e., the TA or IA) who graded your assignment in 7 calendar days after grades posted, but if a resolution cannot be reached between the student and the original grader, the original grader will forward the case to the instructor who will have the final say on the grade.

## 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 (Code of Student Conduct) (https://policy.unt.edu/policy/07-012).

#### **Disability Services/Special Needs:**

UNT follows all federal and state laws and regulations regarding discrimination including the Americans with Disability Act of 1990 (ADA). If you have a disability and need a reasonable accommodation for equal access to education or services, please contact the Office of Disability Accommodation. Please initiate this process and inform me during the first two weeks of class.

#### **ADA** accommodation statement:

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/office-disability-access). You may also contact ODA by phone at (940) 565-4323.

#### Academic Dishonesty/Plagiarism:

Plagiarism of any kind will automatically result in a grade of F for the course. Academic Integrity Standards in this course are consistent with UNT policy: STUDENT STANDARDS OF ACADEMIC INTEGRITY (18.1.16), or other related/existing polices. The work that you turn in to be graded, including any underlying ideas, must be your own individual work. Usage of unauthorized material and sources, or depending on any unauthorized assistance, to answer homework problems, tests questions, writing reports, or carrying any type of assignment, etc., without the permission of the instructor, or without complete and accurate and complete attribution/citations of the source, when applicable, is viewed as an academic misconduct. If you have any doubts or if you have specific questions, feel free to ask the instructor.

#### **Other Policies:**

Students should refer to any other polices from University, College and/or Department.

## Attendance and Participation

Research has shown that students who attend class are more likely to be successful. You should attend every class unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in the <a href="Student Attendance and Authorized Absences Policy(PDF)">Student Attendance and Authorized Absences Policy(PDF)</a> (<a href="https://policy.unt.edu/policy/06-039">https://policy.unt.edu/policy/06-039</a>). If you cannot attend a class due to an emergency, please let me know. Your safety and well-being are important to me.

#### **Communication Expectations:**

The best way to reach me outside of class/office hours is via email. During the week I will respond to your email within 24 hours. During the weekend, response time may be longer. This includes personal concerns or questions about the class or an assignment. The TA/IA and I strive to get your grades back between 1-1.5 weeks from the due date, though that is not always possible when the class is large. Communication is expected to be professional and respectful. Online Communication Tips: (<a href="https://clear.unt.edu/online-communication-tips">https://clear.unt.edu/online-communication-tips</a>) are available When contacting either the instructor or TA/IAs please include "CSCE 3530.501" in the subject line.

#### **Announcements:**

Stay tuned and make sure to check Canvas frequently. Important announcements will be posted there.

Class Policies: Please note that portable phones, pagers, and late arrivals are disruptive to the instructor and to your peers. The use of cell phones, beepers, or communication devices is disruptive and is therefore absolutely prohibited during class and exams. Turn off your cell phone while in class and while taking exams. If I catch you using these devices in the class or during the exams, the penalty can range from a formal warning to an 'F' for the course and you will be asked to leave the class. Except in emergencies, students using such devices must leave the classroom for the remainder of the class period. I know that some of you may wish to take notes directly on your computer and I have no problem with that. If, however, you choose to access your email, search the web, play games, or instant messenger your friends during class, you will have 5% deducted from your final grade for each transgression. If I am late arriving to class, it will be because of circumstances beyond my control. You are expected to remain for 15 minutes past the scheduled class start time while I attempt to communicate my situation and relay instructions.

**Student Perceptions of Teaching (SPOT):** Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The short SPOT survey will be made available **at the end of the semester** to provide you with an opportunity to evaluate how this course is taught.

**ABET Survey:** Towards the end of the course, the students will be asked to participate ABET exit survey which will help instructors to quantitively measure whether the students met the course outcomes stated in the course syllabus.

# **Assessing Your Work**

**Course Policies:** You are expected to spend at least 10 hours per week for this course. Keep all your graded assignments, and tests for study and review. You should track your own progress on Canvas and be aware of current grades throughout the term. If you would like to look at the graded assignments, meet me during my office hours or setup an appointment. Final grading will be done as follows. A: >= 90%, B: >= 80% and < 90%, C: >= 70% and < 80%, D: >= 60% and < 70% and F: < 60%. Grades will be curved if necessary. Grades cannot be changed after they have been electronically entered into the university's system except

for instructor error. Any extenuating circumstances that may adversely affect your grade must be brought to my attention before the final course grades are recorded. To be considered, such circumstances must be unusual, unavoidable, and verifiable.

# Course Requirements/Schedule

**Syllabus Revisions:** This syllabus may be changed as the course progresses. Notice of such changes will be by email or announcement in class.

#### **Tentative Course Schedule:**

Tentative Course Schedule:		
Week	Lecture	Assignments Due
01/13 – 01/17	Introduction	
01/20 - 01/24	Computer Networks and the Internet	
01/27 – 01/31	Computer Networks and the Internet	Homework 1
02/03 – 02/07	Application Layer	Lab Assignment 1
02/10 – 02/14	Application Layer	Homework 2
02/17 – 02/21	Transport Layer	Lab Assignment 2
02/24 – 02/28	Transport Layer/Review	Homework 3
03/03 – 03/07	No Lecture	Midterm Exam
03/10 - 03/14	Spring Break – No Classes	
03/17 – 03/21	Transport Layer	Lab Assignment 3
03/24 – 03/28	Network Layer: Data Plane	Homework 4
03/31 – 04/04	Network Layer: Data Plane	Lab Assignment 4
04/07 – 04/11	Network Layer: Control Plane	Homework 5
04/14 – 04/18	Network Layer: Control Plane	Lab Assignment 5
04/21 – 04/25	Link Layer	
04/28 – 05/02	Link Layer/Final Exam Review	
05/05 – 05/09	No Lecture	Final Exam