

CSE 3231 – Computer Networks – Spring 2022

Tuesday/Thursday - Section 01: 11:00am-12:15pm

Instructor: Dr. William Allen

Office Location: Harris Center for Science and Engineering, Room 309

Office Hours: email your instructor to schedule an online meeting

Email: wallen@fit.edu

Office Phone: 321-674-8856

Course Web Page: canvas.fit.edu

Course Description:

Provides an overview of computer networks, applications and protocols. Includes network architectures, routing, addressing, medium access control, connection-oriented and connectionless services, network performance analysis, network programming and common transport-layer, network-layer and link-layer protocols. Prerequisite: CSE 2010

Required Textbook:

Computer Networks, Andrew S. Tanenbaum, Nick Feamster and David J. Wetherall, Sixth Edition, 2021

Course Objectives:

After completion of this course, students should be able to:

- Describe the basic concepts and terminologies of data communication
- Compare current network architectures and services
- Explain the principles of network routing and reliable data transfer
- Describe the concepts of a layered network architecture, such as TCP/IP
- Apply programming concepts and techniques to implement network communications

Grading Policy:

Your final course grade will be based on the following components:

- Quizzes, homework assignments and attendance in class: 55% total
- Midterm Exam: 20% of the final grade – Tuesday, March 1
- Final Exam: 25% of the final grade - Monday, May 2, 3:30–5:30 p.m.

Please note that extra credit will not be available for this class. Your grade will be calculated from the components listed above. All lecture slides, assignments and other material will be posted in Canvas. Assignments are given a specific due date and extensions to due dates must be arranged in advance.

Grading Scale: A: 90 to 100, B: 80 to 89, C: 70 to 79, D: 60 to 69, F: below 60

Missed and Late Work Policy

With very few exceptions, missed quizzes and assignments cannot be made up. Exceptions will be made for an illness or family emergency that is approved by the Dean of Students. Late assignments without prior approval will not be accepted and will receive a grade of 0.

Notes on Assignments and Quizzes:

- Quizzes will cover concepts and terminology discussed in class.
- Assignments will include both the application of techniques shown in class and network programming.

Lecture Topics:

Networking concepts and terminology	1.0 week
Physical layer	0.5 week
Data Link layer	1.5 week
Medium Access Control layer	1.5 week
Network layer protocols	2.5 week
Transport layer protocols	1.0 week
Flow control and Congestion control	1.0 week
Network-aware applications	1.5 week
Network programming	0.5 week
Overview of cryptography	1.0 week
Mobile and wireless networking	0.5 week
Secure communications protocols	0.5 week
Network security and privacy	1.0 week

This list is subject to change at the instructor's discretion.

Title IX Statement: The university's Title IX policy is available at <https://www.fit.edu/policies/title-ix/>

Title IX of the Education Amendments of 1972 is a federal civil rights law that prohibits discrimination on the basis of sex in federally funded education programs and activities. Florida Institute of Technology policy also prohibits discrimination on the basis of sex.

Florida Tech faculty are committed to helping create a safe learning environment for all students that is free from all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you, or someone you know, have experienced or is experiencing any of these behaviors, know that help and support are available.

Florida Tech strongly encourages all members of the community to take action, seek support, and report any incident of sexual harassment or gender discrimination to **Fanak Baarmand**, Title IX Coordinator at 321-674-8885 or fbaarman@fit.edu.

Please note that as your professor, I am required to report any incidents to the Title IX Coordinator.

If you wish to speak to an employee who does not have this reporting responsibility, please contact the **Student Counseling Center** at 321-674-8050.

Academic Honesty Definitions & Procedures:

All exams, quizzes and assignments for this class must be **your own work**. You may discuss assignments with other students and with your instructor, but *what you turn in is to be completely your own work*. Duplicate assignments, beyond reasonable coincidence, will be considered as cheating and dealt with as allowed by University policy. Department and University policies allow severe penalties (see the [FIT Student Handbook](#)) up to and including an F in the course and/or expulsion from the University, for *plagiarism*, i.e., submitting work as your own when it was, in fact, complete by others.

<https://www.fit.edu/policies/student-handbook/standards-and-policies/academic-honesty/>

Academic Accommodations:

Florida Tech is committed to equal opportunity for persons w/disabilities in the participation of activities operated/sponsored by the university. Therefore, students w/documented disabilities are entitled to reasonable educational accommodations. The Office of Accessibility Resources (OAR) supports students by assisting w/accommodations, providing recommended interventions, and engaging in case management services. It is the student's responsibility to make a request to OAR before any accommodations can be approved/implemented. Also, students w/approved accommodations are encouraged to speak w/the course instructor to discuss any arrangements and/or concerns relating to their accommodations for the class.

Office of Accessibility Resources (OAR):

- Phone: 321-674-8285
- Email: accessibilityresources@fit.edu
- Website: <https://www.fit.edu/accessibility-resources>

Recording Disclosure (Privacy Waiver):

This course may be recorded for use by students and/or faculty. Enrolled students are subject to having their images and voices recorded during the classroom presentations, remote access learning, online course discussions, and remote office hours/meetings. Course participants should have no expectation of privacy regarding their participation in this class. Recordings may not be reproduced, shared with those not registered in the courses, or uploaded to other online environments. All recordings will be deleted at the conclusion of the academic term.

COVID-19 University Policy:

Students are required to abide by the policies and guidelines set by [Florida Tech Safe: Return to Learn Plan](#) available online at <https://www.fit.edu/coronavirus>. Instructors will enforce [Florida Tech COVID-19 policies](#) in all classrooms and labs.