

# Computer Communications

## CPSC 471 Section 04

### Fall 2022

## Description

Introduction to digital data communications. Terminology, networks and their components, common-carrier services, telecommunication facilities, terminals, error control, multiplexing and concentration techniques.

## Prerequisites

CPSC 351. Computer Science or Computer Engineering major or minor; or Computer Science or Computer Engineering graduate standing.

## Instructor

Professor: Linh Trinh  
Phone: 657-278-4571  
Email: [ltrinh@fullerton.edu](mailto:ltrinh@fullerton.edu)  
Office: PLN320-1  
Office Hours: Virtual using Zoom, Friday 9:30am – 10:30am. Zoom session information is posted on Canvas

## Class Meeting Information

Lecture: Friday 7:00pm-9:45pm  
Location: classroom E 221

Note: This course is an in-person course and standard mode of instruction is in-person in classroom E 221. Due to the endemic nature of continually developing future variants of COVID-19 there may be time when up to 3 sessions may be conducted virtually via zoom. I will inform ahead of time, both in-class and via Canvas messaging broadcast when such situation applies.

## Important Dates

CSUF's Academic Calendar is posted online at <http://apps.fullerton.edu/AcademicCalendar/>. The Academic Calendar contains all the campus closures and holidays you should be aware of.

CSUF's Admissions Calendar is posted online at <http://admissions.fullerton.edu/apps/calendars.aspx> . The Admissions Calendar contains all the major dates with respect to adding, dropping, and withdrawing from your classes.

## Textbook

Kurose, James F.; Ross, Keith W., Computer Networking (8th edition), Pearson Education, ISBN-10: 013668155-7

## Equipment

A notebook PC to be used in class with adequate battery power for the length of the lecture, quiz, and exam sessions.

## Objectives

At the end of the course the student will:

1. understand basic data communications concepts, networking hardware and structure, the working of the Internet, protocols, networking terminologies, and factors affecting communication performance
2. understand the network layering and service model. Specifically, the Application, Transport, Network, and Link Layers of the Internet TCP/IP
3. be able to develop basic web-based networking applications
4. be able to capture, diagnose, and analyze networking related information

## Course Outline

Week	Topics
1	Introduction (chapter 1)
2, 3, 4	Application Layer (chapter 2)
5, 6, 7	Transport Layer (chapter 3)
8, 9	Network Layer Data plane (chapter 4)
9	Midterm Exam Friday October 21
10, 11	Network Layer Control plane (chapter 5)
12	Veterans Day November 11, no class
13	Link Layer (chapter 6)
14	Fall recess
15	Wireless, Mobility, LANs, Wifi, Bluetooth (chapter 7)
16	Network Security, Cryptography, Firewalls, Intrusion Detection Systems (chapter 8), Review
17	Final exam Friday December-16 7:00PM-8:50PM

# Grading

Plus, and minus grading will be used when determining final grades. Final grades are computed by first finding the average score in each category described in the table below. All scores are normalized to a scale of 0 to 100 before being averaged. The average score for each category is then used to compute the weighted average according to the weights in the table below.

Grade	Range	Grade	Range
A	93 to 100%	C+	77 to < 80%
A-	90 to < 93%	C	73 to < 77%
B+	87 to < 90%	C-	70 to < 73%
B	83 to < 87%	D	60 to < 70%
B-	80 to < 83%	F	< 60%

Category	% Of Final Grade
Quizzes	25
Projects	25
Midterm exam	25
Final exam	25

## Attendance

Attending class is mandatory. Missing class is not allowed unless it is excused by the instructor. Missing class as part of a documented accommodation is guaranteed to be excused. The student must make a reasonable effort to coordinate any absences with the instructor.

## Quizzes

A fifteen-minute quiz will be given weekly, starting from week 3 and beyond.

## Assignments

There will be approximately four assignments. Assignments will be posted and collected using Canvas. Canvas is set up to allow students to submit works unlimited number of times. That means students can verify what was submitted and students can resubmit a revised version if necessary before the closing time. The new submission will overwrite the previous one.

#### Notes:

- Students can submit late submissions, up to 24 hours past the due date/time with a 10% grade deduction penalty.
- To ensure fairness to all students I will not accept any submission outside Canvas.
- Any emergency must be notified timely and with supporting documents.
- Students are responsible to ensure the correct readable contents were submitted in Canvas and resubmit the correct readable content before the closing date and time.
- Incorrect contents, empty, or non-readable submissions are treated the same as no submission and will receive zero credit.

## Midterm Exam

The Midterm exam covers topics announced in class.

## Final Exam

The Final exam is comprehensive.

## Make Up Policy

There is no make-up for any missing assignment or exam.

## Academic Dishonesty

Students are encouraged to assist one another and discuss the course materials with your peers. It is your responsibility to be aware of and follow the spirit of CSU Fullerton's academic honesty policy which can be found at

[https://www.fullerton.edu/senate/publications\\_policies\\_resolutions/ups/UPS%20300/UPS%20300.021.pdf](https://www.fullerton.edu/senate/publications_policies_resolutions/ups/UPS%20300/UPS%20300.021.pdf)

. By submitting work for evaluation, you acknowledge that you have adhered to the spirit of the university's academic honesty policy and that your submission is an original work by you unless otherwise directed to work in groups. Failure to follow the spirit of the academic honesty policy will result in a severely negative evaluation of the work in question and may result in involving the Department Chair and the Judicial Affairs office to seek a disciplinary remedy.

## ADA Accommodations

Any student who, because of a disability, may require special arrangements in order to meet course requirements must contact the instructor and the Office of Disability Support Services as soon as possible to make the necessary arrangements. The instructor may request verification of need from the Dean of Students Office. Students are encouraged to contact the Office of Disability Support Services within the first week of the semester to best ensure that the appropriate accommodations are implemented in a timely fashion. The

Office of Disability Support Services' website is «<http://www.fullerton.edu/DSS/>». They can be reached by phone at 657-278-3117 or TDD at 657-278-2786. Their email address is «[dsservices@fullerton.edu](mailto:dsservices@fullerton.edu)». Their office is located in University Hall, room 101.

## Emergency Procedures

Students are expected to notify the instructor of any emergency situation that arises affecting project, or exam within 24 hours prior or after the affected due date and students must provide relevant supporting documents.

For your own safety and the safety of others, each student is expected to read and understand the guidelines published at «<http://prepare.fullerton.edu/campuspreparedness/>». Should an emergency occur, follow the instructions given to you by faculty, staff, and public safety officials. An emergency information recording is available by calling the Campus Operation and Emergency Closure line at 657-278-4444.

## Instructional Continuity

Due to an event such as an epidemic or a natural disaster that disrupts normal campus operations, students must monitor the course Canvas site and their campus email address for any instructions and assignments that the instructor announces.

## Extra Credit

There are no opportunities for extra credit.

## Recording & Transcription of Class Content

Recording class content is governed by UPS 330.230,  
[https://www.fullerton.edu/senate/publications\\_policies\\_resolutions/ups/UPS%20300/UPS%20330.230.pdf](https://www.fullerton.edu/senate/publications_policies_resolutions/ups/UPS%20300/UPS%20330.230.pdf)