

CS 435: Computer Networks
Fall 2024
MW 9:00-10:15

Instructor Information

Name: S. Seth Long, Ph.D
Office: MLH 216 (temporary), later TJH 204
Email: sslong@lcsc.edu
Office Hours: Monday 1:30-3:00, Thursday 10:30-12:00
Course Website: <https://isoptera.lcsc.edu/seth/cs435>

Course Goals

At the end of the course, students should:

- Understand computer networks and the Internet
- Be able to write client/server programs
- Become more experienced writing multithreaded software and data management
- Be familiar with principles for writing UNIX software

Textbook

There is no official textbook for the course.

Grading

Your grade will be calculated based on the following items:

Item	Percentage of grade
Exam 1	20%
Final Exam	20%
2 Projects	50% total (20% for the client, 30% for the server)
Homework	10% total

Homework assignments will generally be posted before the week they are intended to be completed within, and due the Monday after.

Grades will be assigned according to a standard curve, that is:

- A: 90% +
- B: 80%- 90%
- C: 70%- 80%
- D: 60%- 70%
- F: less than 60%

Use of + or - grades (such as B+ or A-) and curves will be at the instructor's discretion.

Deadlines and late work

Late work will not be accepted, except by instructor discretion. However, partial credit will be given for partially-completed work. It is better to turn in an unfinished assignment for partial credit than to not turn in something on time and receive a 0.

Attendance

Attendance will not be taken in this class except as required for financial aid purposes. However, all material presented during lecture is "fair game" for the midterm and final, and some of this material may not be in the book as well. Therefore I recommend that you always attend class.

Academic Dishonesty

Cheating on any assignment will result in failing the class. Some things which constitute cheating in this class are:

- Copying another student's homework
- Turning in homework created by another student
- Reading another student's answers on a test
- Sharing all or part of your completed homework with another student before the assignment is due
- Turning in code found on the Internet

Appropriate collaboration on homework involves sharing ideas with other students, but not source code! Although it is often tempting to help another student by showing them how your completed program works, this is not helpful to their learning. However, this does not mean you cannot collaborate with other students on homework. Sharing of ideas, principles, and algorithms is permitted and encouraged.

Tentative Course Schedule

Fall 2024 CS435 Tentative Schedule		
Week	Course Content	Events
Aug 19	Introduction to the Sockets API and TCP/IP	Homework 1
Aug 26	Multithreaded Servers	Homework 2
Sep 2	No class Monday, LURK Protocol and Binary Network Data	Homework 3
Sep 9	LURK Chat Server Demo	Homework 4
Sep 16	Writing a LURK bot	Server Milestone 1
Sep 23	DNS Server Demo	
Sep 30	Multithreading and Data Management	
Oct 7	Midterm and answers	Server Milestone 2
Oct 14	Client UI	
Oct 21	More on Client UI	
Oct 28	Server Presentations	Server Due
Nov 4	Using UDP	
Nov 11	Serving Multiple Clients with One Thread	
Nov 18	Demo: TBD	
Nov 25	Thanksgiving Break	
Dec 2	Class Client Testing	Client Due
Dec 9	Final Exam Wednesday, December 11, at 9:00 AM in MLH 310	