

# Computer Networks Section 01

## CS 158A

Spring 2024 3 Unit(s) 01/24/2024 to 05/13/2024 Modified 01/21/2024

### Contact Information

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Instructor: Dr. Faramarz Mortezaie

Email: [faramarz.mortezaie@sjsu.edu](mailto:faramarz.mortezaie@sjsu.edu)

#### Office Hours

Wednesday, 1:00 PM to 2:00 PM, Online

Office hour Zoom Link:

<https://sjsu.zoom.us/j/86726564829>

Instructor: Dr. Faramarz Mortezaie

Email: [faramarz.mortezaie@sjsu.edu](mailto:faramarz.mortezaie@sjsu.edu)

### Course Information

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Lecture Time	MW 9:00 - 10:15 AM
Classroom:	Sweeney Hall 435
Prerequisite:	CS 146 Data Structures and Algorithms and CS 147 Computer Architecture with grade C- or better.

### Course Description and Requisites

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Introduction to computer networks, including network layered architectures, local and wide area networks, mobile wireless networks, Internet TCP/IP protocol suite, network resource management, network programming, network performance, network security, network applications.

Prerequisite(s): CS 146 and CS 47 (with a grade of "C-" or better). Computer Science or Software Engineering majors only, or instructor consent.

Letter Graded

## \* Classroom Protocols

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### Attendance

Students are expected to attend the lectures and participate in the discussion.

Instructors may drop students from class if they fail to attend respond to instructor email.

### Technical Difficulties and Internet Connection issues

Canvas AutoSaves responses a few times per minute if there is an internet connection. If your internet connection is lost, Canvas will warn you but allow you to continue working on your exam. A brief loss of internet connection is unlikely to cause you to lose your work. However, a longer loss of connectivity or weak/unstable connection may jeopardize your exam. Other technical difficulties: Immediately email the instructor a current copy of the state of your exam and explain the problem you are facing. Your instructor may not be able to respond immediately or provide technical support. However, the copy of your exam and email will provide a record of the situation.

Contact the SJSU technical support for Canvas:

Technical Support for Canvas

Email: [ecampus@sjsu.edu](mailto:ecampus@sjsu.edu)

Phone: (408) 924--2337

<https://www.sjsu.edu/ecampus/support/>

If possible, complete your exam in the remaining allotted time, offline if necessary. Email your exam to your instructor within the allotted time or soon after.

Phone: (408) 924--2337

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## Program Information

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Diversity Statement - At SJSU, it is important to create a safe learning environment where we can explore, learn, and grow together. We strive to build a diverse, equitable, inclusive culture that values, encourages, and supports students from all backgrounds and experiences.

## Course Learning Outcomes (CLOs)

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Upon successful completion of this course, students will be able to:

CLO1	Have an ability to know the concepts and principles underlying the structures and designs of computer net
CLO2	Have an ability to understand network layered architectures and their associated benefits.
CLO3	Have an ability to understand the Internet TCP/IP protocol suite.
CLO4	Have an ability to know basic network programming, performance and diagnostic tools.

## Course Materials

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### Computer Networks

**Author:** Andrew Tanenbaum and David Wet

**Publisher:** Pearson

**Edition:** 5

## Course Requirements and Assignments

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SJSU classes are designed such that to be successful, it is expected that students will spend a minimum of forty-five hours for each unit of credit (normally three hours per unit per week), including preparing for class, participating in course activities, completing assignments, and so on. More details about student workload can be found in [University Policy S12-3](http://www.sjsu.edu/senate/docs/S12-3.pdf) at <http://www.sjsu.edu/senate/docs/S12-3.pdf>.

[University policy F69-24](http://www.sjsu.edu/senate/docs/F69-24.pdf) at <http://www.sjsu.edu/senate/docs/F69-24.pdf> states, "Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading."

## Descriptions of Assignments/Exams

**Exams:** Exams will be in the form of multiple choice, short answer, and programming/coding questions and will be based on the individual assignments and course material. The exams are individual work with closed books/handouts/laptops/calculators.

A course schedule is provided towards the end of this document providing a tentative schedule for Labs, Project and Exams. This schedule is subject to change with fair notice.

## ✓ Grading Information

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### Criteria

Homework, Weekly Quiz, discussion	25%
Exam-1	25%
Exam-2	25%
Comprehensive Final Exam	25%

### Breakdown

A+	98 – 100%
A	93 – 97%
A-	90 – 92%

B+	88 – 89%
B	83 – 87%
B-	80 – 82%
C+	78 – 79%
C	73 – 77%
C-	70 – 72%
D+	68 – 69%
D	63 – 67%
D-	60 – 62%
F	59% and less

## University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/S16-9.pdf) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on the [Syllabus Information](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>) web page. Make sure to visit this page to review and be aware of these university policies and resources.

## Course Schedule

MW 9:00 AM - 10:15 AM

When	Topic	Notes
<b>Lecture</b> Week-1 01/24/2024 9:00 AM - 10:15 AM	Orientation and introduction	Canvas Module
<b>Lecture</b> Week-2 01/29/2024 9:00 AM - 10:15 AM	Network Models OSI Layers	Chapter-1

When	Topic	Notes
<b>Lecture</b> Week-3 02/05/2024 9:00 AM - 10:15 AM	Introduction to Physical Layer	Chapter-2
<b>Lecture</b> Week-4 02/12/2024 9:00 AM - 10:15 AM	Introduction to Physical Layer	Chapter-2
<b>Lecture</b> Week-5 02/19/2024 9:00 AM - 10:15 AM	Data Link Layer	Chapter-3
<b>Lecture</b> Week-6 02/26/2024 9:00 AM - 10:15 AM	Review and Exam-1	
<b>Lecture</b> Week-7 03/04/2024 9:00 AM - 10:15 AM	Data Link Layer	Chapter-3
<b>Lecture</b> Week-8 03/11/2024 9:00 AM - 10:15 AM	Medium Access Control	Chapter-4
<b>Lecture</b> Week-9 03/18/2024 9:00 AM - 10:15 AM	Network Layer	Chapter-5
<b>Lecture</b> Week-10 03/25/2024 9:00 AM - 10:15 AM	Network Layer	Chapter-5
<b>No Class</b> Week-11 04/01/2024 9:00 AM - 10:15 AM	Spring Break -- No classes this week	

When	Topic	Notes
<b>Lecture</b> Week-12 04/08/2024 9:00 AM - 10:15 AM	Review and Exam-2	
<b>Lecture</b> Week-13 04/15/2024 9:00 AM - 10:15 AM	TCP/UDP	Chapter-6
<b>Lecture</b> Week-14 04/22/2024 9:00 AM - 10:15 AM	Client/Server Programming	Chapter-6
<b>Lecture</b> Week-15 04/29/2024 9:00 AM - 10:15 AM	Computer Security Encryption and Decryption	Chapter-7
<b>Lecture</b> Week-16 05/06/2024 9:00 AM - 10:15 AM	Review	All Chapters
<b>Final Exam</b> Week-17 05/21/2024 7:15 AM - 9:30 AM	Closed Book Final Exam	