San José State University Computer Science Department CS 158-A, Computer Networks, Section 2, Spring 2020

Course and Contact Information

Instructor:	Paul Tuan Nguyen
Office Location:	TBD
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Office Hours:	TBD
Class Days/Time:	M W 6:00 PM – 7:15 PM
Classroom:	MH 225
Prerequisites:	CS 146 Data Structures and Algorithms and CS 147 Computer Architecture with grade C- or better.

Course Description

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: CS 146, and CS 147 or CMPE 120, (with grades of "C-" or better in each); or instructor consent.

Canvas Course Site

Course materials such as syllabus, textbook, assignments, questions of the week and exams can be found on the Canvas Leaning Management System course website at http://sjsu.instructure.com. You are responsible for regularly checking with Canvas to learn of any updates.

Course Learning Outcomes (CLO)

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

- 1. Have an ability to know the concepts and principles underlying the structures and designs of computer networks.
- 2. Have an ability to understand network layered architectures and their associated benefits.
- 3. Have an ability to understand the Internet TCP/IP protocol suite.
- 4. Have an ability to know network programming, performance, and diagnostic tools.
- 5. Have an ability to configure a basic computer network

Required Texts/Readings

Textbook

Computer Networks by Andrew Tanenbaum and David Wetherall fifth Edition Prentice Hall/Pearson.

Course Requirements and Assignments

SJSU classes are designed such that in order 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 at http://www.sjsu.edu/senate/docs/S12-3.pdf.

NOTE that University policy F69-24, "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.

Grading Information

Homework	30%
Midterm 1	20%
Midterm 2	20%
Final Exam	30%

Determination of Grades

Percentage	Grade
92 and above	А
90-91	A-
88-89	B+
82-87	В
80-81	B-
78-79	C+
72-77	С
70-71	C-
60-69	D
59 and below	F

No make-up Midterms/ Final Exam and no late assignments will be accepted.

Note that "All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades." See <u>University Policy F13-1 at http://www.sjsu.edu/senate/docs/F13-1.pdf for more details.</u>

Classroom Protocol

- 1. Students are strongly recommended to participate in all lectures
- 2. Please turn off your cell phones during the lecture time.
- 3. Always start your email subject with "CS158A" to get my attention.

University Policies

Per <u>University Policy S16-9</u> (*http://www.sjsu.edu/senate/docs/S16-9.pdf*), relevant information to all courses, such as academic integrity, accommodations, dropping and adding, consent for recording of class, etc. is available on Office of Graduate and Undergraduate Programs' <u>Syllabus Information web page</u> at http://www.sjsu.edu/gup/syllabusinfo/".

CS 158A / Computer Networks, Spring 2020, Course Schedule

This detailed outline is subject to change based on the needs of the class. Updates will be notified in the class and Canvas will be kept up to date.

Course Schedule

Week	Date	Topics	Assignments	Due Date
1	01/27/2020 01/29/2020	Introduction	Chapter-1 Wireshark & Cisco Packet Tracer Tools Homework-1	2/10
2	02/03/2020 02/05/2020	Physical Layer	Chapter-2 Homework-2	2/17
3	02/10/2020 02/12/2020	Data Link Layer	Chapter-3 Homework-3	2/24
4	02/17/2020 02/29/2020	Medium Access Control	Chapter-4	
5	02/24/2020 02/26/2020	Medium Access Control	Chapter-4 Homework-4	3/04
6	03/02/2020 03/04/2020	Review Exam-1	Chapters 1 to 4	
7	03/09/2020 03/11/2020	Network Layer	Chapter-5 Homework-5-1	3/23
8	03/16/2020 03/18/2020	Network Layer	Chapter-5 Homework-5-2	3/30
9	03/23/2020 03/25/2020	Network Layer	Chapter-5 Homework-5-3	4/5
10	03/30/2020 04/01/2020	Spring Recess No Classes		
11	04/06/2020 04/08/2020	Network Layer	Chapter-5 Homework-5-5	4/20
12	04/13/2020 04/15/2020	Review Exam-2	Chapters 5	
13	04/20/2020 04/22/2020	Transport Layer	Chapter-6 Homework-6	5/4
14	04/27/2020 05/29/2020	Application Layer	Chapters 7 Homework-7	5/13
15	05/04/2020 05/06/2020	Network Security	Chapter-8 Homework-8	
16	05/11/2020 05/13/2020	Network Security Final Review	Chapter-8	
17	05/18/2020	Final Exam		