

CS4471 Computer Networks – Spring 2024 v1.2

Lecture Time: Wednesdays 6:00 – 8:45pm.

Lecture Location: FA218 and/or Zoom

<https://calstatela.zoom.us/j/85285331309?pwd=eXN2VERuMmczbTBpMWIwRW4wT1FBdz09>

Instructor: Edmund Gean
Office Hours: Wed 8:45-9:45pm via Zoom
Email: egean@calstatela.edu
Web site: <http://cs3.calstatela.edu/~egean/cs4471>

Student Assistant: Ashley Tran Email: atran135@calstatela.edu

Description: This course will expose students to computer network concepts and provide experience through network simulation software.

Course Goals: By the end of the course, successful students will be able to demonstrate conceptual understand and working knowledge in the following areas.

- Network devices such as router, switch, bridge, hub, transceiver, NIC, cabling
- Ethernet and Wireless LANS
- Capturing and decoding Ethernet packets
- Configuration of Cisco switches and routers
- IPv4 and IPv6 Routing
- Security and Access Control Lists
- Network protocols such as TCP/IP, ARP, ICMP, STP, SNMP, DHCP, and OSPF

Course Structure:

This course will be conducted in-class and/or online. Submission of assignments will be through Cal State LA learning management system Canvas at <https://canvas.calstatela.edu/>.

Prerequisite: Understanding of operating systems (CS4440)

Required textbook:

CCNA 200-301 Official Cert Guide Library

by Wendell Odom, published by Cisco Press,

ISBN-10: 1-58714-714-9 or ISBN-13: 978-1-58714-714-2

ebook of textbook available at Safari Books online at <https://libguides.calstatela.edu/az.php?a=o&p=1>
<https://learning.oreilly.com/library/view/ccna-200-301-official/9780136755562>

Personal computer with the following software installed:

Cisco Packet Tracer 8.2 <https://www.netacad.com/courses/packet-tracer> for Windows, MacOS, Ubuntu

Wireshark 4.2.0 <https://www.wireshark.org/download.html> for Windows and MacOS

Recommended: USB to Ethernet adapter, and USB-to-RS232 serial port adapter

References: [O'reilly Online Books](#)
[Cisco Networking Academy](#)
[Cisco Learning Network](#)
[GNS3 Network Simulator](#)
<https://developer.cisco.com/site/sandbox/>
[YouTube CCNA videos](#)

Assignments:

Reading and lab assignments can be found at

<https://cs3.calstatela.edu/~egean/cs4471/cs4471%20lab%26read%20assignments%20-2024%20spring.pdf>

All student homework assignments shall be submitted within Canvas at <https://calstatela.instructure.com>

Assignments are due one week after assigned. Late submission of assignments may be penalized one point during first week assignment is past due. For each additional week past due date, submitted assignment may be penalized an additional point.

Grading policy:

Attendance: 10%

Class participation: 5%

Lab Assignments: 40%

Midterm: 20%

Final Exam: 25%

Extra credit: 15% if pass CCNA certification exam 200-301

<https://www.cisco.com/c/en/us/training-events/training-certifications/exams/current-list/ccna-200-301.html>

<https://home.pearsonvue.com/cisco>

A (90-100) B (80-89) C(65-79) D (50-64) F (0-49)

Final Exam: Wed May 15, 2024 5:00 pm via Canvas ?

Academic Integrity: Cheating will not be tolerated. Cheating on any assignment or exam will be taken seriously. All parties involved will receive a grade of F for the course and be reported to the Academic Senate.