

# Syllabus- CS 56: Networking Essentials

Unlock Your Inner Networks Superpowers!

## Meet Your Guide: Professor Information

**Professor:** Tony Pacheco  
**Office:** SCMA 137  
**Office Hours:** Tuesdays 12pm-2pm and Wednesdays 10am-1pm or by appointment. ☎ Contact via Canvas message or email.

**Email:** ProfessorTony77@gmail.com ☎  
**Preferred Contact Method:** Email is usually best for quick questions!  
**Fun Fact:** Hey future tech wizards! I'm excited to help you start your C.S. adventure. When I'm not teaching, you can find me on the track, running/training, or online finding some good tech videos or movies! 🏃‍♂️💻

## Course: Information

**Course:** Networking Essentials: 3 Units  
**Term:** Spring 2026, Course Section #30391  
**Hosted via Canvas at:** [sjdc.instructure.com](https://sjdc.instructure.com) ☎

**Final Exam:** Week of 05/11/26 (T.B.A.) ☎  
**Preferred Contact Method:** Canvas email is the best form of immediate contact as phone messages are not checked often.

## INFO Course Description: Your Mission, Should You Choose to Accept It...

Welcome to \*\*Networking Essentials\*\*! how the digital world stays connected? In Networking Essentials, we peel back the curtain on the invisible pulse of the planet! From the hidden hardware in your walls to the massive architecture of the global Internet, you'll master the protocols and topologies that power our lives. Become a digital architect as you design LANs, manage WANs, and dive into the essential world of system administration. Ready to build the backbone of the future? Let's get connected and power up your career!.

### Official- Course Description:

This course is a general introduction to current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course includes an introduction to the hardware, software, terminology, components, design, and connections of a network, as well as the topologies and protocols for LANs. This course includes LAN-user concepts and the basic functions of system administrations and operation. (CSU)

## AIM Course Objectives

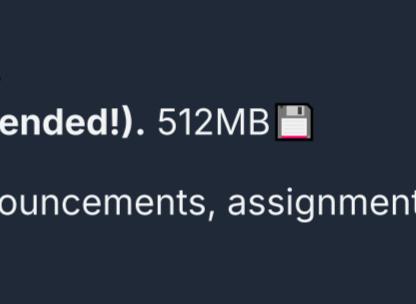
Upon successful completion of this course, the student will be able to:

- Identify the components of a LAN and determine the type of network design most appropriate for a given site.
- Identify the different media used in network communications, distinguish between them, and determine how to use them to connect servers and workstations in a network.
- Distinguish between the different networking standards, protocols, and access methods, and determine which would be most appropriate for a given LAN.
- Recognize the primary network architectures, identify their major characteristics, and determine which would be the most appropriate for a proposed LAN.
- Identify the primary functions of network operating systems and distinguish between a centralized computing environment and a client/server environment.
- Determine how to implement and support the major networking components (including the server, operating system, and clients), and propose a system for adequately securing data on a given LAN and protecting the system's components.
- Distinguish between LANs and WANs, identify the components used to expand a LAN into a WAN, and determine how to implement an appropriate modem in the larger LAN/WAN environment.
- Identify strategic LAN support tools and resources, and determine how to use these in troubleshooting basic network problems.
- Identify the components of the Internet.

## SKILL Learning Outcomes

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

- Students will demonstrate an understanding of basic networking design.
- Students will demonstrate understanding of basic networking diagnostics.



## CAL Key Dates - Mark Your Calendars!

SPRING SESSION 2026 DATES. (Download PDF for all Spring sessions/dates)- [CLICK HERE!](#) 💡

- Start Date (Jan. 09):** First Day of Spring Semester. - Let the Adventure Begin! 🚀
- Drop w/Refund (Jan. 23):** Last day to Drop with Full Refund! ☎
- Drop w/No'W' (Jan. 25):** Last day to Drop with NO 'W' AND Last Day to Add. ☎
- Drop w/'W' (Mar. 16):** Last day to Drop with a 'W' 😊
- Finals Week (May. 10):** Final Exams Week thru May.15 - The Grand Finale! 🎉
- (Always check Canvas Course dashboard and Online Calendar for other important dates and holidays)

## GEAR REQUIRED Text & Items - Your Toolkit! \*\*IMPORTANT\*\*

- Textbook (Online, eTextbook+ Cengage MindTap, ONLINE LEARNING PLATFORM, "Guide to Networking Essentials" ISBN-13: 978214012674) Greg Tomsho, Published 2026, 9th edition (6-month access \$118). [Purchase by Jan. 14 or you will be Dropped from the course.](#)

Note: We'll be using this extensively. You can find Access Code Bundle at the campus bookstore or online @Cengage- [CLICK HERE!](#) scroll down a little, (\$118). Obtain this ASAP. **Assignments due first week, use the online content!**

- Software / Other Online Access:** LinkedIn Learning. Office 365. GMAIL account needed! Other software/accounts as noted in Canvas Welcome page.

Good news! This software is free and we'll walk through how to install it.

- Hardware: \*Important\*** You will need:
  - A reliable computer (Windows preferred, Mac, or Linux ok) with internet access. ☎
  - A USB flash drive for Virtual Machines and backing up your work (**HIGHLY recommended!**). 512MB ☎

**Other:** Access to the college's Learning Management System (LMS) – Canvas! All announcements, assignments, links, and grades will be posted there! ☎

## RULES Course Policies & Procedures - The Game Rules!

### Attendance & Participation: Your Journey, Your Presence!

Course attendance every week, whether the course is Online or In-Person, is IMPORTANT! \*\*your presence is crucial!\*\* Lectures, discussions, activities, labs, and assignments are designed to help you succeed. Think of it like leveling up in a game – you can't get experience points if you're not playing! Active participation will also count towards your grade. Course assignments, discussions, labs, activities, and tests are how your grade is determined. \*\*It is your responsibility\*\* to get all the work done! **Missing 2 or more graded activities may result in being dropped from the Course!** If you have any questions, PLEASE ASK. I am here to facilitate your success. Check Canvas often, participate, read announcements, and do the work. **You can do it!**

\*\*During the first week of the course there will be 3 graded assignments due! \*\* **CRUCIAL** to avoid being DROPPED!

### Late Work: Beat the Clock!

Assignments have due dates for a reason – they help you stay on track and build knowledge sequentially. Assignments submitted late will have a penalty. Again, you are responsible for doing the work and doing it on time! Late penalty will be up to 10% of assignment score. (Depending on number of days late). **Pro Tip:** Aim to finish early! You'll thank yourself later.

### Make-Up Exams & Emergency Policy: Life Happens!

Make-up exams will only be granted for \*\*verifiable, documented emergencies\*\* (e.g., serious illness with a doctor's note, family emergency). You must contact me \*\*as soon as possible\*\*, preferably before the exam, to discuss arrangements. The same applies to extensions for major assignments under emergency circumstances.

### Academic Integrity: Code with Honor!

This is a big one! All work submitted in this course must be \*\*your own original work\*\*, unless explicitly stated otherwise. \*\*What's Okay:\*\* Discussing concepts, getting help understanding errors. \*\*What's NOT Okay:\*\* Copying written work or code, sharing completed assignments, having someone else do your work. Any instance of academic dishonesty will result in a \*\*zero\*\* for the assignment/exam\*, and may be reported to the college. Let's keep it honest! Tools such as Turnitin may be used to check for similarities.

### Classroom/Online Conduct, Tutors, and Individual Assistance: Respect is Key!

Our classroom, Online, or In Person, is a learning community. Be respectful. Conduct should fit a classroom/learning environment. Be considerate of others. Do not argue, though questioning and presenting of ideas with supportive reasoning is encouraged. In the classroom, silence cell phones. Laptops for notes/exercises only. Ask questions! If you have questions about tutoring, check Delta Online Tutoring/NetTutor at this online link [CLICK HERE!](#) 💡

You may also consider working with a study group or post a question in the Chavas course discussion board. Post general questions, comments, requests to form study groups, links to interesting articles or websites, or any course related information. Posts that are deemed inappropriate by the professor will be deleted and may result in student discipline. Other students are often quite helpful and will generally provide a lot of support. And, of course, you can always ask the Professor- in an online Canvas message!

### Communication: Stay Connected!

Always Check Canvas for announcements. \*Your professor may not have time to respond to all individual communications. If there are areas of general misunderstanding or errors, the problem may be addressed as an Announcement item or other mass communication method. Please understand that there are over 200 students enrolled in courses taught by your professor, which places a very heavy demand on your professor and as a result there may be little flexibility in handling of individual requests. Canvas email for private communications will be checked on a regular basis and is the best form of direct, private communication with your professor. \*Office hours are best for detailed help!

## INF Assistance and Other Important Online Student Information!

Delta maintains a College Website with Links to important student information including the current Student Handbook. [CLICK HERE!](#)

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- Need Assistance?** Students requiring accommodations for a certified disability that may affect class performance are requested to contact DSPS, meet with a staff member at [Disability Support Programs and Services](#) so that appropriate arrangements can be made. DSPS is located in the DeRicco Building, 2nd floor. The phone number is (209) 954-5151 x6272. After obtaining any DSPS, course accomodation(s), you will need to make your Professor aware of such accomodation(s). Then contact me during the first week of the semester, as soon as you have the DSPS accomodation.

**Student Services:** Extensive online page with Student services, programs, financial aid information, and other resources for all students! [CLICK HERE!](#)

**CANVAS Access:** To access your classes, course, online resources, L.M.S., and Fully Online courses you need to log into the college online learning tool CANVAS, through your MyDelta Dashboard. For, How to Login to CANVAS, [CLICK HERE!](#) 📱

**Drops?** "DROPS" ARE THE RESPONSIBILITY OF THE STUDENT. ☎ Except for the first 2 weeks of the term. Students may be dropped for non-attendance. The professor reserves the right to make any adjustments in the operation of this course that in professional judgment are warranted to better meet the needs of the students and the objectives of the course.

## GRADE Grading Policy - How You'll Level Up!

Students will be evaluated by a final examination and, at the professor's discretion, one or more of the following: midterms, quizzes, homework, computer programs, discussions, and/or class activities.

### Grade Breakdown:

- Assignments (Questions, Labs & Problems): 50%
- Quizzes (In-class or Online): 16%
- Midterm Exam: 12%
- Final Exam (Cumulative): 15%
- Participation (In-Class or Online Activities): 7%

### Grading Scale:

- A: 90-100%
- B: 80-89%
- C: 70-79%
- D: 60-69%
- F: Below 60%

## Level Up Your Skills!

## MAP Course Schedule - Your Roadmap to Success!

\*CANVAS- Modules is the place to find all assignments! Be sure to start there and work to complete each Module's assignments by the noted Due Dates. Schedule below contains a high-level overview of dates, topics, and chapters. Modern Operating Systems is the online e-Text. Other online sites will be noted in Canvas. Links noted in Modules or assignment pages.

**This schedule can change and is subject to change with notice. Check CANVAS/ for the latest updates!**

### Spring 2026 Course Schedule

WK.	DATE	ETEXT (CENGAGE MINDTAP ONLINE), READ - HMEWK - TEST-QUIZ-ASSGNMT.	END DATE
1	Jan. 09	URGENT: Complete ALL Required Tasks- To <b>avoid being DROPPED</b> from course. (Canvas Module, Getting Started) + Orientation	Jan. 16
2	Jan. 18	Read e-TextBook Chapter 1. Introduction to Computer Networks	Jan. 24
3	Jan. 25	Cengage-Mindtap: COMPLETE activities in <b>Learn It, Study It, Apply It</b>	Jan. 31
4	Feb. 01	Read e-Text Chpt. 3. Network Topologies and Technologies	Feb. 07
5	Feb. 08	Cengage-Mindtap: COMPLETE activities in <b>Learn It, Study It, and Apply It</b> . Due	Feb. 14
6	Feb. 15	Read e-Text Chpt. 5. Network Protocols	Feb. 21
7	Feb. 22	Complete All activities in- <b>Learn It, Study It, and Apply It</b> . Due	Feb. 28
8	Mar. 01	Read Ch.7, Network Reference Models & Standards <b>Learn, Study, Apply</b>	Mar. 07
9	Mar. 15	COMPLETE All activities in <b>Learn It, Study It, and Apply It</b> . Due	Mar. 16
10	Mar. 22	Read e-Text Chpt. 9. Introduction to Network Security	Mar. 28
11	Mar. 29	Complete All activities in- <b>Learn It, Study It, and Apply It</b> . Due	Apr. 04
12	Apr. 05	Read e-Text Chpt. 11. Network Operating System Fundamentals	Apr. 11
13	Apr. 12	COMPLETE All activities in <b>Learn It, Study It, and Apply It</b> . Due	Apr. 18
14	Apr. 19	Read e-Text Chpt. 13. The Internet of Things (IoT)	Apr. 25
15	Apr. 26	COMPLETE All activities in <b>Learn It, Study It, and Apply It</b> . Due	May 02
16	May 03	Appendix A: Network Troubleshooting Guide	May 09
17	May 10	COMPLETE activities as may be assigned. Due	Date TBA
		<b>FINALS WEEK: IN- CLASS/ONLINE FINAL (WEEK OF MAY 11; T.B.A.)</b>	

## ASSISTANCE Assignments - Additional information!

**Projects:** Such as Essays, PowerPoint Presentations, Videos, and Systems Planning: Exercises to work through online or offline are to increase your ability to recognize how Operating Systems are best used and their various component parts. Expect to spend some time reading through each of the Chapters and then working through any exercises, labs, Discussions, quizzes and/or other online work. ✨

**Quizzes:** Will cover Chapter material for each Module and chapter readings. Keep those neurons firing! ✨

**Midterm & Final Exams:** Will assess your understanding of concepts and your ability to apply them. They will include multiple-choice, short answer, and some T/F questions. ☎

**(Optional) Final Project:** An Extra Credit work will be announced prior to the Midterm. More details will be provided separately. 💡

## DATA is VALUED!

## A Final Byte of Wisdom...

Learning computer science is like learning a new language and a new way of thinking. It takes practice, persistence, and patience.

Don't be afraid to make mistakes – they are part of the learning process! Ask for help when you need it, collaborate (appropriately!), and most importantly, have fun exploring what you can create! I'm here to help you succeed. Let's have an amazing semester! ✨