Introduction to Operating Systems and Networks
CTC 228 Course Syllabus Spring 2023

	Professor: Kami Amir Heshmat	Office Phone: (310) 243-2030
	Pre-requisite: CTC 116	Email: kami@csudh.edu
	CTC 228	
	Office Hours: Mon 5:00 pm-7:00 pm (Please make an appointment in advance via email)	

Course Description

Course acquaints students with basic networking concepts such as TCP/IP, local/wide area networking as well as emerging industry topics such as Radio Frequency Identification (RFID), Global Information Systems (GIS), Networked Attached Storage (NAS), and WiMAX.

Course Outcomes

Upon successful completion of this course:

1. Students will be able to describe basic computer components and operations to exemplify networking components and operations.

2. Students will be able to define the steps required for network communication process using the OSI (Open System Interconnection) model

3. Student will be able to compare the technologies used to transmit data over different types of network media and logical topologies

4. Students will be able to develop network management skills required to design and manage an organization's computer network IP addressing schemes used in LAN, WAN, and wireless networking using TCP/IP (Transmission Control Protocol/Internet Protocol).

5. Students will be able to explain different approaches to network troubleshooting using the network troubleshooting tools and the Problem-Solving Process

Required Materials

Textbook
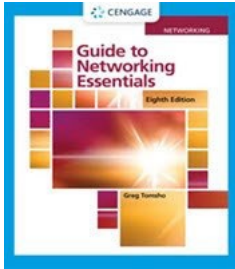
Greg Tomsho, *Guide to Networking Essentials*, eight editionhttp://www.cengagebrain.com

**Paperback
ISBN-10: 0357118286 |ISBN13: 9780357118283**

**eBook
ISBN-10: 0357693914 | ISBN-13: 9780357693919**

Assignments and Tests

We are planning on having Assignments, quizzes, midterm and final exams, and the following rules apply:

- All assignments and graded activities are to be done on the LMS (Learning Management System) Blackboard site at http://toro.csudh.edu. To use the site with a Windows PC, you must be on a Windows 7 or higher computer running Google Chrome or Mozilla Firefox, Adobe Acrobat,

- The deadline for assignments is at 11:59:00 p.m. on due dates Pacific Standard/Daylight. Late assignments will not receive full credit and they will be reduced by 10 points for each week they are late.

- Students who participate in Toro-Hack Security Conference will earn five extra credit points) if conference is scheduled during the semester).

- You will be given two "virtual tokens" to use in this class: one for one week assignment extension and one for an exam retake. Email me the day you would like to use your token. **The class tokens are not transferable between students and can only be used for quizzes within one week after or one week extension on assignments.**

Technology Requirements

Computer:

You must have access to a reliable computer and Internet for this course. If you are on campus, and do not have a laptop, you can check out a laptop from the IT User Services Help Desk via Technology Checkout Program. In addition, the CSUDH Toro Lab offers on campus access to workstations with a wide variety of commonly used software and you can also access the virtual lab from remote site. When you are on campus, connect your laptop and mobile device to the internet using the eduroam Wi-Fi campus wireless network.

Visit the [CSUDH Academic Technology Online Courses Technical Requirements](#) page for more information on technology requirements.

Learning Environment

The lecture part of this course is designed based on **Face-to-Face instruction model** and all graded course activities, announcements, and course materials are posted online via LMS Blackboard.

The course will make use of many common LMS (Learning Management System) tools, Blackboard, TechEd, Edpuzzle, etc. Please be sure to read all the lessons and documents in the course so that you have the necessary information to complete the required activities.

Toro Virtual Lab will allow you to have a virtual Windows 10 computer from your desktop so that you can access course software from anywhere, and the best part is that you can access the Toro Virtual Lab from any computer - either in the CSUDH Library, other public space, or from your computer at home to have a more robust technology experience. There are three ways to begin a Toro Virtual Lab session:

1. Web browser
2. MyCSUDH
3. Torolab App

For more information, please visit the Knowledge Base Articles in ServiceNow: <mark>(Bookmark for future reference, in case you do not have access to your emails)</mark>

- [KB0012319--Toro Virtual Lab: How To Access The Toro Virtual Lab](#)
- [KB0012321: Toro Virtual Lab: Working With Files in a Virtual Lab](#)
- [KB0012322--Toro Virtual Lab: FAQ](#)
- [KB0012323: Toro Virtual Lab: Install CSUDH Torolab (App)](#)

Email

All email communications from this course will go to your [Toromail email account](#). Toromail is the CSUDH student email system.

Office 365:

Course work will require you to submit work via Office 365 apps. Active CSUDH students have access to [Office 365 (Word, Excel, PowerPoint)](#) for personal desktop and laptop computers at no cost.

Teaching Methods

- Face-to-Face instruction model, course materials and graded activities are posted online vial LMS. Simulations and quizzes/tests, and assignments will be assigned to reinforce material in the text.

Course Duration & Organization

The lecture is delivered on **Mondays 7:00 pm-10:00 pm** and the lab section is administered on **Wednesdays 7:00 pm-10:00 pm starting Monday January 23, 2023.**

Technology Skills Requirement

The technical skills and the required prerequisite are:

- Pre-requisite: CTC 116 with a grade of C or better
- Competency with file management (for example, creating a folder on your desktop, moving files from one location to another, finding a saved file, etc.)
- Internet navigation skills
- Blackboard navigation skills
- Download plug-ins from the Internet
- Update your Internet browser
- Send and receive email
- Create and save documents (Word, PowerPoint, Excel, or HTML)
- Toggle between two open software applications on your computer

Grading

Grade Distribution	
3 Quizzes	15%
3 Assignments	15%
Class Participation & Activities	5%
Midterm Exam	20%
Final Exam	25%
Labs	20%
Total	100%

Grading Scale

Grading Scale	
100%–90%	A
89%–80%	B
79%–70%	C
69%–60%	D
59%–0%	F

NOTE: *If you are no longer participating in the class, it is your responsibility to drop or withdraw yourself from the course. It is not the instructor's responsibility to drop students who are no longer participating in the class*

Important Dates

For information on campus holidays, visit the [CSUDH Academic Calendar page](#).

Student / Instructor Communication

Here are some important email communication tips:

- **Email** is the fastest way to reach me. I will generally respond to messages sent to me within 24 hours.
- *Question Café* **Forum***:* Have a question about course materials and activities? Ask here! Know an answer to a question? Answer it! and if you have happened to have the answer, feel free to provide it to your fellow students. While I will post responses as well, this forum is primarily for student-to-student communications.

Blackboard Learn

You may access the course through Blackboard Learn https://toro.csudh.edu.

Your challenge is to dedicate the required time for study within your personal schedule. This syllabus, including the schedule and due dates, should support you in managing your time effectively.

As part of your personal schedule, make sure to check the course several times a week so that you can see if I have posted any new information and announcement

Learner Expectations

- This is a fast-paced course that requires regular engagement throughout the semester. **Attendance is required and will be monitored**
- Ensure you have approximately 6-8 hours per week to spend on this course.
- You are expected to plan your study time around the course schedule and recommended completion dates.
- Check your email account regularly for updated information. Use e-mail for private messages to the instructor and other students. The discussion forum is for public messages. Emails sent will be answered within 24 hours.
- If you have questions or confusion about an assignment, take action promptly! Check *Question Café* Forum to see if your concern has been addressed already and post your question there if you do not see an answer.

Special Needs

Please let me know if you have a need for adaptive software and hardware to assist you with taking this course or if you have any specific needs, I should be aware of. The [CSUDH Student Disability Resource Center](#) (SdRC) is available to assist you

during this course. The SdRC is available at (310) 243-3660 and can be reached by email at dss@csudh.edu.

Technical Help

If you need technical help, refer to the following resources:

Login Issues: For login issues related to Blackboard, Toromail and MyCSUDH, contact the [IT Help Desk](#) at (310) 243-2500, option 1. You can also create an [online service ticket](#) for login support.

The IT Help Desk also offers walk-in support. Visit the first floor of the library (north), C-108, for in-person help.

Password Resets: CSUDH offers an easy, self-service [password reset service](#) at https://password.csudh.edu/. For additional assistance with password resets, contact the [IT Help Desk](#).

Blackboard Issues: For issues or questions with Blackboard, contact the CSUDH Blackboard Support line at (310) 243-2500, option 2. You can also create an [online service ticket](#) for Blackboard support. If you are new to Blackboard or unfamiliar with a specific feature of Blackboard, [CSUDH Academic Technology](#) offers a series of PDF and video-based tutorials. Visit the [CSUDH Academic Technology Tutorials page](#) for more information.

Student Preparation for the Class

- Review objectives and the text chapters assigned per schedule posted in Blackboard and the online PowerPoint presentations for class
- Make note of any questions you may have to pose during class or via email.
- Read all posted announcements.

CSUDH Standards of Student Conduct

All students must conform to the [Standards of Student Conduct](#), which have been established by students and college staff and have been approved by the Board of Trustees. The Standards of Student Conduct are listed in the Academic Policies section of the university Catalog.

Knowing Your Responsibilities

CSUDH provides you with a wide variety of academic assistance and personal support, but it is up to you to know when you need help and to seek it out. It is your responsibility to keep informed and to obey the rules, regulations and policies which control your academic standing and your life as a CSUDH student. Meeting deadlines, completing prerequisites, and satisfying the degree and certificates requirements, as found in the curriculum guides in this catalog, are all part of your duties as a student. Consult this catalog, the college and school announcements and the schedule of classes for the information you need. Watch for official announcements.

Accessibility at CSUDH

Access to publications, instructional material, computer software, hardware, and electronic information, as well as access to the campus are critical for the educational and career achievement of all persons. CSU Dominguez Hills seeks to enable that access with this directory of information and services.

The policy of the CSU is to make its programs, services, and activities accessible to students, faculty, staff, and the public who visit or attend a campus sponsored event, with disabilities.

Disabled Student Services, also known as the [Student Disability Resource Center](#) (SdRC), requests students to bring any issues and concerns related to service delivery or access to the University's buildings, programs, and activities to our attention. SdRC will either address the issue and concern itself or forward it to the appropriate University department.

Your willingness to make us aware will enable the SdRC program and campus to better meet your needs.

Basic Needs Resources for Students

If you are struggling financially, can't afford healthy, nutritious food, or need stable housing, take advantage of these resources on campus.
https://www.csudh.edu/student-services/food-shelter-resources/food-resources/
· DH Eats App – Look for it in the Apple App Store

· **CalFresh** – Financial aid for food to help stretch your grocery budget. Email calfresh@csudh.edu with your eligibility questions. Or make an appointment: https://dh-calfresh.appointlet.com.

· **Housing Referrals** – Contact the Basic Needs Coordinator to go over temporary housing solutions. mkirk@csudh.edu

· **Basic Needs Food Distribution** Events – The basic needs program is providing (4) meals and fresh produce to students every other Thursday. Event registration link will be sent out via toromail and iToros app.

· **Farmers' Market** – **SUSPENDED DUE TO COVID** Turn 10 CalFresh dollars into $20 worth of fresh produce through the DH Farmers' Market's "Market Match" program: Tues 10-2 in the Sculpture Garden.

· **Toro Food Pantry** – **SUSPENDED DUE TO COVID** Another nutrition assistance program available to any CSUDH student. They also stock toiletries and menstrual products.

Academic Honesty

Lack of honesty in the classroom is considered a very serious offense. Any form of cheating on tests, turning in work which is not one's own (Plagiarism), talking during tests, furnishing false information to instructors, or knowingly misrepresenting one-self to the college is grounds for disciplinary action. The

consequences of cheating are severe and may include the possibility of expulsion. Visit the [CSUDH Academic Integrity page](#) for more information.

Instructor's Rights

An instructor has the right to remove a student from class at any time he/she considers a student's actions to be interfering with a proper collegiate environment. The instructor may also refer the incident to the Director of Student Discipline & Student Life for disciplinary action as warranted.

COURSE SCHEDULE					
Week	**Covered this Week**	**Assignment**	**Assignments Due Date**	**Tests**	
One 01/23/2023	• Introduction • Syllabus • Ch 1 – Introduction to Computer Networks				
Two 01/30/2023	• Ch 2 – Network Hardware Essentials				
Three 02/06/2023	• Ch 3 – Network Topologies and Technologies				
Four 02/13/2023	. Ch 4 – Network Media			**Quiz No.1 02/13/23**	
Five 02/20/2023	President's Day No Class				
Six 02/27/2023	Ch 5 – Network Protocols			**Assignment No.1 Due 02/27/23**	
Seven 03/06/2023	Ch 6 – IP Addressing				
Eight 03/13/2023	**Midterm Exam**			**Midterm Exam 03/13/23**	
Nine 03/20/2023	Ch 7 – Network Reference Model and Standards				
Ten 03/27/2023	Spring Break No Class			**Assignment No.2 Due 03/27/23**	
Eleven 04/03/2023	• Ch 8 – Network Hardware in Depth			**Quiz No.2 04/03/23**	
Twelve 04/10/2023	Ch 9 – Introduction to Network Security				

Thirteen 04/17/2023	• Ch 10 – Wide Area Networking and Cloud Computing			
Fourteen 04/24/2023	Ch 11 – Network Operating System Fundamentals			**Quiz No.3** 04/24/23
Fifteen 05/01/2023	• Ch 12 – Network Management and Administration			
Sixteen 05/08/2023	• Ch 13 – The Internet of Things • Ch 14 - Troubleshooting and Support			**Assignment No. 3 Due** 05/08/23
05/15/2023	**Final**			**Final Exam Monday** 05/15/2023