

Syllabus

CSCD 330-040 Computer Networks

Fall (2023)

Description

This course covers fundamental concepts, protocol mechanisms and programming skills for computer networks. It includes a technical overview of telecommunication media and fundamental protocols for the Internet such as ISO/OSI layers, Ethernet, collision detection and channel allocation. Programming projects are required.

What it really means

We all use computer networks in our daily lives, but how well do you understand them? This course aims to explain the concepts behind computer networks—specifically those that make up the Internet.

Course Textbook

Computer Networking: A Top-Down Approach, 7th Edition

James Kurose, ISBN 9780133594140 (in Canvas Modules)

Instructor information

Instructor: Antonio Espinoza

Office: CAT 338

Office hours: Tuesday 10:00-11:00, Thursday 1:15-2:15 and by appointment.

Email: aespinoza17@ewu.edu

Note: Please email me directly, **NOT through CANVAS**.

Tentative topic schedule

Week	Topics/Labs
1	Chapter 1 - Computer Networks and the Internet Lab 1 - Tool scavenger hunt
2	Chapter 2 - Application Layer Lab 2 - Web APIs
3	Chapter 2 - Application Layer Lab 3 - Socket programming
4	Chapter 3 - Transport Layer Lab 4 - TCP
5	Chapter 3 - Transport Layer Lab 5 - Wireshark
6	Chapter 4 - The Network Layer: Data Plane Lab 6 - IP

Week	Topics/Labs
	Midterm Oct, 26
7	Chapter 4 - The Network Layer: Data Plane Lab 7 - scapy
8	Chapter 5 - The Network Layer: Control Plane
9	Chapter 5 - The Network Layer: Control Plane
10	Chapter 6 - The Link Layer and LANs
11	PKI, iptables, extra etc.
Final	Dec 5, 1:00 - 3:00

General Policies

Professional Behavior

You are expected to act in accordance with the department's [Code of Professional Conduct for Students](#). This means cheating will not be tolerated. If you ever receive aid on an assignment, be sure you document where the aid came from. Students who copy another's program/work may be subject to severe disciplinary action, which may include a course grade of 0.0 and a written statement in their permanent record.

Lectures

If you choose not to come to class then please do not use office hours as a substitute for not attending lectures. Those that attend regularly and participate in class discussion will be rewarded accordingly when final grades are calculated! Classroom activities will complement, not necessarily duplicate, the text. Furthermore, you are accountable for material covered in class, so you miss class at your own risk!

Exams

No makeup exams are given without prior arrangements or in the case of a **documented** emergency after the fact. Exam dates are provided at least a week before they occur, and review sessions may occur preceding each exam.

Homework/Labs:

Homework, labs, and assignments will be in the form of; programming projects in class labs, written assignments, *etc.*

- **All written assignments must be in PDF format.**
- Assignments are due by the required time ***on the due date***. Late assignments ***WILL NOT*** be accepted. Do not email me the code, do not post it in Canvas as a comment, just turn your stuff in on time or earlier. You can submit multiple times and we will grade the last submission. In the case of a documented emergency, the instructor reserves the right to accept late work. A doctor's note may not be considered a documented emergency.
- You must submit all files such that your code can be compiled. If your code does not compile because you did not provide the correct/complete files, then you will receive a maximum of 5 points.
- Incomplete submissions/non-compiling code/unreadable PDF files/etc... will not be accepted. Ensure everything is correct before you submit, and all required files are included. You will receive a score of a 0 for incomplete submissions/non-compiling code/unreadable PDF files/etc.
- If the grader/the instructor make a mistake you must discuss the mistake with the instructor immediately.

Final Grade

Your final grade will be calculated based on the percentages described above.

Preparation

You are expected to read material from the chapter in the book that is being discussed in class ***ahead*** of time. Examples given in class and by the authors should be confirmed by the student, to guarantee complete understanding of the subject.

Americans with Disabilities Act

Your ability to succeed in this class is important to me. If you already have an accommodation plan through Disability Support Services (DSS) and would like to use your approved accommodations in this class, please let me know as soon as possible. If you do not have an accommodation plan but have a temporary health condition or permanent disability that may require an accommodation, please contact DSS at dss@ewu.edu or 509-359-6871. You can also visit their website at <https://inside.ewu.edu/dss/>. DSS accommodations are only granted on exams. Accommodations do not apply to labs/homework/assignments or quizzes.

Religious Accommodations

If you would like to request an accommodation for reasons of faith or conscience, please refer to EWU's policy on Holidays and Religious Accommodations available at <https://inside.ewu.edu/policies/>. Accommodations must be requested within the first two weeks of this course using the Holidays and Religious Accommodations Request form available at <https://inside.ewu.edu/student-life/resources/holidays-and-religious-accommodations-request/>.

EWU Academic Policy/Cheating Policy

You are allowed to discuss your thoughts with and help other classmates; however, you must do your own work, meaning ALL work should be your own. Plagiarism and cheating **WILL NOT BE TOLERATED**. Plagiarism includes using someone else's programs or parts of programs as your own; copying another person's work; handing in another person's work for your own. If you work with someone else to understand the content, it is important that each person does the assignment separately. Should any of your work be duplicated from another person or any other source, you will be asked to leave the class and not return. Your final grade will be 0.0. Any infractions will be handled in accordance with the academic integrity policy of Eastern Washington University.

EWU Title IX Policy

Eastern Washington University recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct will NOT be tolerated at EWU. If you have been subjected to sexual misconduct, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct I must report the matter to the Title IX Coordinator. Should you want to report to a confidential source you may contact the following:

- Sexual Assault Family Trauma (SAFeT) – 509-624-7273 – 24 hours
- YWCA Domestic Violence Crisis Line – 509-326-2255 – 24 hours
- Suicide and Mental Health – 509-838-4428 – 24 hours
- Employee Assistance Program (EAP) – 360-407-9490 (employees)
- Counseling and Psychological Services (CAPS) – 509-359-2366 (students)