COURSE SYLLABUS
INTRODUCTION TO COMPUTER NETWORKS
COSC 30003-080

Semester and Year: Spring 20XX
Number of Credits: 3
Course Component Type: LEC
Class Location:
Class Hours:
Instructor:
Office Location:
Office Hours:
Email:
Preferred Method of Contact: Email
Response Time: Emails will be responded within 24 hours.

Final Evaluative Exercise & Important Dates

FINAL EXAM: MAY 7 5:00 PM – 7:30 PM
Midterm Exam: Announced in the class/class announcement
Last Day to Drop: Tuesday, April 1
Last Day to Select P/NC: Monday, April 21

Other important dates will be communicated via class announcements.

Grader

TBD

Student Resources & Policy Information

Click or scan QR code for resources to support you as a TCU student. Please note section on Student Access and Accommodation and Academic Conduct & Course Materials Policies.

Course Description

Description

Study of the technology, architecture, and software used by systems of network-connected computers. Topics include data transmission, local area networks, architectures, network protocols, inter-networking, distributed systems, security, and network applications such as email, WWW, and FTP. All networking fundamentals will be presented based on the modular approach of the ISO standards.

Prerequisites

CITE 30103

Course Materials

Required Materials

- **Textbook:** None

Supplementary Resources

- Networking Basics - 2nd Edition by Patrick Ciccarelli, Christina Faulkner, Jerry Fitzgerald, Alan Dennis, David Groth, and Toby Skandier, ISBN: 978-1-118-21449-7 (adobe pdf), ISBN: 978-1-118-07780-1 (pbk. print)
- James Kurose and Keith Ross, "Computer Networking: A Top-Down Approach", 8th Edition, Pearson, 2021. Link
- Lecture notes/slides will be made available on TCU Online.

Device Information: Students **MUST** be able to access laptops or desktops to complete all assignments. The operating system can be Windows/macOS/Linux.

Learning Outcomes

Course learning outcomes

1. Networking fundamentals, including the principles and function of computer networks.
2. Network standards and models, such as OSI and TCP/IP, and their role in data communication.
3. Exploring the relationships between TCP/IP and other protocols like ICMP, UDP, ARP, DHCP, NAT, and tunneling.
4. Understanding Network protocols, architectures, and topologies.
5. Network media and devices, including wired and wireless communication tools.
6. Identifying IPv4 and IPv6 addressing schemes and their applications.
7. Understanding TCP's role in establishing reliable network connections.

8. Fundamental knowledge of network servers and services.
9. Network security essentials and management techniques.

COURSE REQUIREMENTS

Assessments

Homework and Lab Assignments

- Homework will be assigned based on material from the lectures. These assignments are meant for you to become familiar with the course material.

- Labs are an integral part of this course and are intended to provide experience in the application of the design techniques discussed in the lectures.

In-Class Activities/Quizzes/Participation

- These grades will be based on in-class assignments or short quizzes, which may be given at any time during the class without any prior notice.

Project/Seminar:

- There will be a project/seminar. This component is a critical part of your learning experience, as it allows you to explore and demonstrate your understanding of the course material in depth. The project/seminar emphasizes practical application, critical thinking, and effective communication of ideas, preparing you for real-world challenges in the subject area.

Exams

- There will be two exams, 1 midterm and 1 final. All the exams will be taken in the lecture classroom.
- The date of the midterm exam will be posted on TCU online and announced in class at least one week prior to the date of the exam. A make-up exam will be given at the discretion of the instructor when a student misses an exam with an excused absence. Unexcused absences on the date of an exam may result in a grade of 0 for the missed exam, so every effort should.
- The final exam will be comprehensive (covering the full semester's materials).
- Rescheduling a final exercise must be made one week prior to the last day of classes. Rescheduling of finals is permitted for 1) graduating seniors whose faculty members must submit final grades by Wednesday 5pm of finals week, 2) students with more than two finals in a 24-hour period rule and 3) students for whom a final examination conflicts with a major religious holiday or custom.

Unless the student is graduating, the exam must be taken during final examination week.

Grading Policy

Late Work

This class has no late assignment policy. Please ensure that you complete and submit all assignments on time. No late assignments will be accepted. If you encounter any extenuating circumstances and need an extension, please email me as soon as possible to discuss your situation.

Participation, Engagement & Attendance

Class attendance is regarded as both an obligation and a privilege. All students are expected to attend each class meeting. I will not take formal attendance. Please note that if you miss an in-class activity or quiz due to class absence, there will be no make-up opportunity.

A student who misses class is still responsible for finding out what was discussed, learning the material covered, and obtaining the homework assigned on the missed day. The instructor is not responsible for re-teaching material missed by a student who did not attend class. Therefore, each student is accountable for and will be evaluated on all material covered in this course, regardless of attendance. If there are extenuating circumstances preventing you from attending the class, please notify your instructor so that you can work together to ensure your success in learning the material.

Because it is considered an infringement on student privacy for me to have access to student medical records, I cannot accept medical documentation to justify absences. If you have a legitimate reason for your absence and want to provide verification, please access the Absence Documentation Form here.

Course Assignments and Final Grade

Assignments	Percentage
Homework and Labs	55%
Exams: Midterm (10%), Final (15%)	25%
In-Class Activities/Quizzes/Participation	10%
Project/Seminar	10%
Total	**100**

Grading Scale

Grade	Score
A	94–100
A-	90–93.99
B+	87–89.99
B	84–86.99
B-	80–83.99
C+	77–79.99
C	74–76.99
C-	70–73.99
D+	67–69.99
D	64–66.99
D-	60–63.99
F	0–59.99

The final course grades will **NOT** be curved with no exceptions. Please also be aware that extra credits/work will **NOT** be given with no exceptions.

Course Policies

Academic Integrity

Academic integrity is central to the mission of educational excellence at TCU. Each student is expected to turn in work completed independently, except when assignments specifically authorize collaborative effort. It is not acceptable to use the words or ideas of another person--be it a world-class philosopher or your lab partner--without proper acknowledgment of that source. This means that you must use footnotes and quotation marks to indicate the source of any code snippet, phrases, sentences, paragraphs, or ideas found in published volumes, on the internet, or created by another student. Anything generated by AI tools like ChatGPT, Google Bard, Bing, etc. if used for class work, must be clearly mentioned. I have a zero-tolerance policy for cheating, and all violations will result in substantial penalties. Any form of academic dishonesty may be penalized with a failing grade ("F") in the class. Additionally, any violations of the Code may be referred to the Office of Academic Innovation and Effectiveness for further disciplinary action. If you have any doubts or questions about what constitutes academic misconduct, please do not hesitate to contact me. For further clarification of university policies regarding academic integrity, please read Academic Conduct & Course Materials Policies.

Technology Policy

Artificial Intelligence (AI) Ethical Considerations and Consequences for Misuse
The inappropriate or unauthorized use of AI-generated content may be academic misconduct and/or a violation of discipline-specific professional ethics. Such misuse of AI or other assignment-help tools will be handled according to TCU's Academic Conduct Policy or other relevant policies and may result in sanctions, including failing the course, program dismissal, suspension, or expulsion.

COURSE SCHEDULE (TENTATIVE)

This tentative calendar represents current course plans. This plan may be modified as the course progresses should the instructor deem it necessary and will be communicated via course announcement.

Date	Chapter/Assignments
Week1	Chapter 1: Network Fundamentals
Week2	Chapter 1: Network Fundamentals Assignment#1
Week3	Chapter 2: Network Standard and Models Assignement#2, IC#1
Week4	Chapter 2: Network Standard and Models
Week5	Chapter 3: Network Protocols Assignment#3
Week6	Chapter 3: Network Protocols IC#2
Week7	Chapter 4: Data and Signals Assignment#4
Week 8	Chapter 5: Network Architecture IC#3
Week9	Chapter 5: Network Architecture Midterm Exam (Tentative)
Week 10	**Spring Break**
Week11	Chapter 6: Network Topologies Assignment#5
Week12	Chapter 7 TCP/IP Assignment#6, IC#4

Week13	Chapter 8: Error Detection and Error Control Assignment#7
Week14	Chapter 9: Advanced Topics IC#5
Week 15	Chapter 9: Advanced Topics Assignment#8
Week 16	Review, IC#6
Week 17	Final Exam