THE UNIVERSITY OF TEXAS AT TYLER
Soules College of Business
COSC5350.001/COSC5350.060 – Data Communication and Networks
Spring 2026 (2026-SPRING7WK2)

Instructor: Nary Subramanian, Ph.D.
COB 315.11
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Office Hours: By Zoom (with appointment).

Text (Required): *Computer Networking: A Top-Down Approach* by James Kurose and Keith Ross, 8th (Eighth) Edition, Pearson Publishing, ISBN 978-0-13-668155-7.

Catalog Description: An in-depth study of data communications and networking. Covers the architecture, design and implementation of computer networks. Topics include data transmission, switching, protocols and security.

Course Description: Computer networking has become the most important modern technology that has helped connect people from across the world. This is especially so with the largest public network, the Internet, that has enabled people access information from anywhere, anytime, and anyhow. In this course we will understand the structure of the Internet and the basics of computer networking so that you can design your own networks for yourself, your employer, or for your research. Recently mobile Internet access has exceeded fixed Internet access and this trend is expected to grow with the advancement of Internet of Things (IoT) technologies. We need to understand what mobile networking technologies are and be ready to leverage their potential in our network designs. We will also study network security so that the networks we design are resistant to attacks. All relevant course material and videos will be posted on Canvas.

Grading: Grading will be based on homework assignments. Assignments are open book. Assignment submissions should be made electronically to Canvas. Late submissions will not be graded and there is **no** penalty for early submissions. Assignments will be available from 12pm on Sunday and will be due before 8am on Wednesday; only in the last week you will have a *second* assignment that will appear at 8am that Wednesday due before 8am that Friday. You get *one* attempt to complete each assignment and a time limit of *one* hour to complete each assignment. Each assignment will be worth 20 points and there will be seven assignments in all (maximum possible score = 140). Your final letter grade will be assigned as per the grading policy given below.

Grading Policy:

Total Points	Letter Grade
≥120	A
≥105, < 120	B
≥90, < 105	C

Course Objectives:

1. Understand the principles of data communications and network
2. Analyze different networking options
3. Design a networked system given the requirements
4. Compare different networking technologies
5. Apply security principles to secure data in transit.

Census and Drop Dates

Census date: March 6th, Drop date: April 10th.

Make-up Policy
There will be no make-ups for missed homework assignments; missed assignments will get a grade of zero.

Tentative Schedule:

Week	Chapter	Topic
3/2 – 3/8	1	Computer Networks and the Internet
3/9 – 3/15		Spring Break
3/16 – 3/22	2	Application Layer
3/23 – 3/29	3	Transport Layer
3/30 – 4/5	4	Network Layer: Data Plane
4/6 – 4/12	5	Network Layer: Control Plane
4/13 – 4/19	6	Link Layer & LANs
4/20 – 4/25	7	Wireless & Mobile Networks

UT Tyler AI Statement
UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

AI Syllabus Information
For this course, AI is encouraged during the course, and appropriate acknowledgment is expected. You can use AI programs (ChatGPT, Copilot, etc.) in this course. These programs can be powerful tools for learning and other productive pursuits, including completing assignments in less time, helping you generate new ideas, or serving as a personalized learning tool. However, your ethical responsibilities as a student remain the same. You must follow UT Tyler's Honor Code and uphold the highest standards of academic honesty. This applies to all uncited

or improperly cited content, whether created by a human or in collaboration with an AI tool. If you use an AI tool to develop content for an assignment, you must cite the tool's contribution to your work.