THE UNIVERSITY OF TEXAS AT TYLER
DEPARTMENT OF COMPUTER SCIENCE
COSC 4360 – Net-Centric Computing
Fall 2025

Instructor: Nary Subramanian, Ph.D.
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(The best way to contact me is email.)

Lecture: TR 12.30 pm to 1.50 pm COB 211

Office Hours: TR 11.00 am to 12.30 pm; MWF 8 am to 10.30 am

Pre-req: COSC 2315 and COSC 2336

Text: *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: Introduces the structure, implementation, and theoretical underpinnings of computer networking and the applications that have been enabled by that technology.

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 will be posted on Canvas.

Grading: Grading will be based on exams, labs, homework, and programming assignments. All submissions of homework and assignments should be made electronically to Canvas – no physical paper submissions will be accepted. Late submissions will not be graded. There will be two mid-term exams as per schedule given later. Labs should be completed in the Networking Lab (COB 258) outside of class times. Weights are given below:

First Midterm Exam	15%
Second Midterm Exam	15%
Final Exam	20%
Labwork	20%
Homework	10%
Programming Assignments	10%
Attendance	10%

Grading Policy:

Points	Grade
≥85	A
≥75, < 85	B
≥65, < 75	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.

Tentative Schedule:

Week	Chapter	Topic
1	1	Computer Networks and the Internet
2	1	Computer Networks and the Internet
3	2	Application Layer
4	2	Application Layer
5	FIRST MIDTERM EXAM, Tuesday, September 23rd, 2025	
6	3	Transport Layer
7	3	Transport Layer
8	4	Network Layer: Data Plane
9	4	Network Layer: Data Plane
10	5	Network Layer: Control Plane
11	SECOND MIDTERM EXAM, Thursday, November 6th, 2025	
12	6	Link Layer and LANs
13	7	Wireless and Mobile Networks
14	8	Security in Computer Networks
15	FINAL EXAM, Thursday, December 11th, 2025, 12.30 pm to 2.30 pm	

Census Date: September 8th, 2025

Attendance and Make-up Policy
It is in your interest to attend all classes. There will be no make-ups for missed exams; missed exams will get a grade of zero.