THE UNIVERSITY OF TEXAS AT TYLER
DEPARTMENT OF COMPUTER SCIENCE
COSC 4360 – Net-Centric Computing
Fall 2026

Instructor: Nary Subramanian, Ph.D.
Office: COB 315.11
Email: nsubramanian@uttyler.edu
Phone: 430-558-1330
(The best way to contact me is email.)

Lecture: TR 9.30 am to 10.50 am COB 255

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, homework, and attendance. All homework submissions should be made on Canvas. Late submissions will not be graded. There will be two mid-term exams as per schedule given later. Weights are given below:

First Midterm Exam	20%
Second Midterm Exam	20%
Final Exam	25%
Homework	20%
Attendance	15%

Grading Policy:

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

Course Objectives:
1. Understand and apply the five-layer network model.
2. Analyze network performance given operating parameters.
3. Design a secure optimal network given the specification.
4. Understand the difference between wired and wireless networks.
5. Understand importance of security issues in computer networks.

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	3	Transport Layer
6	FIRST MIDTERM EXAM, Thursday, October 1st, 2026	
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 5th, 2026	
12	6	Link Layer and LANs
13	7	Wireless and Mobile Networks
14	8	Security in Computer Networks
15	FINAL EXAM, Thursday, December 10th, 2026, 9.30 am to 11.30 am	

Census Date: September 8th, 2026

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.