

EE 5379 --- Network Protocols

Spring 2018

Instructor: Dr. Michael McGarry
Office: ENG 340
Telephone: 915-747-6955
Email: mpmcgarry@utep.edu

Texts: Computer Networking: A Top Down Approach (6th Edition)
James Kurose and Keith Ross
TCP/IP Sockets in C (2nd Edition)
Michael Donahoo and Kenneth Calvert

Course Description: To understand communication network design principles.

Prerequisites: CS 2302 Data Structures or EE 2372 Software Design 1(C or better)

Class Hours: Mondays and Wednesdays 1:30PM to 3PM (Liberal Arts Rm. 207)

Office Hours: Mondays and Wednesdays 3PM to 4:30PM (Eng. A340)

Course Outline:

Week 1: Introduction
Week 2: Network Performance Measures
Week 3: Network Protocol Layering
Weeks 4-5: Application Layer Design Principles: HTTP, DNS, and FTP
Week 6: Socket Programming
Weeks 7-8: Transport Layer Design Principles: TCP, and UDP
Week 8: **Midterm Exam**
Weeks 9-10: Congestion Control and TCP
Weeks 10-11: Network Layer Design Principles: IP, and Router Architecture
Week 12: Routing Algorithms: RIP, OSPF, and BGP
Week 13: Link Layer Design Principles: Error Detection/Correction, and Ethernet
Week 14: Media Access Control Protocols: Ethernet CSMA/CD
Week 15: Introduction to Software-Defined Networking
Week 15: **Final Exam**

Grading:

Homework/Quizzes	25%
Labs	25%
Midterm	25%
Final	25%

Academic Dishonesty:

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