Instructor: Dr. Michael McGarry  
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Texts:  
  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
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:**

As an entity of The University of Texas at El Paso, the Department of Electrical and Computer Engineering is committed to the development of its students and to the promotion of personal integrity and self-responsibility. The assumption that a student’s work is a fair representation of the student’s ability to perform forms the basis for departmental and institutional quality. All students within the Department are expected to observe appropriate standards of conduct. Acts of scholastic dishonesty such as cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in the whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student, or the attempt to commit such acts will not be tolerated. Any case involving academic dishonesty will be referred to the Office of the Dean of Students. The Dean will assign a Student Judicial Affairs Coordinator who will investigate the charge and alert the student as to its disposition. Consequences of academic dishonesty may be as severe as dismissal from the University. See the Office of the Dean of Students’ homepage (Office of Student Life) at [http://studentaffairs.utep.edu/dos](http://studentaffairs.utep.edu/dos) for more information.

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