

King Fahd University of Petroleum and Minerals
College of Computer Sciences and Engineering
Department of Computer Engineering
COE 540: Computer Networks (3-0-3)

Textbook:

1. Andrew S. Tanenbaum and David J. Wetherall , *Computer Networks*, 5th Edition., Pearson, 2011
2. Dimitri Bertsekas and Robert Gallager, *Data Networks*, second edition, 1992, Prentice Hall, Inc., and
3. J. F. Kurose and K. W. Ross *Computer Networking: A Top-Down Approach featuring the Internet* , 5th Edition, 2008, Prentice Hall Publishing Company.

References:

1. Garcia, L., and Widjajm I., *Communication Networks*, 2nd Edition, 2006.

Instructor: Dr. Ashraf S. Mahmoud, Room 22-420, Ext 1724, email: ashraf@kfupm.edu.sa

Class Time/Place: UT 17:00-18:15 pm – Building 24, Room 125.

Office Hours: UT 9:30-10:45 and 12:30-13:30 or by appointment.

Catalog Description:

Review of Computer networks layering concepts and quality of service requirements. Physical Layer, Data Link Layer; ARQ Strategies; Analysis of ARQ Strategies. Multi-access communication. Network Layer. Routing in Data Networks. Flow and Congestion Control. Transport Layer. Application Layer: peer-to-peer networking, Content Distribution networks. Studying a number of classic and current papers on these subjects.

Tentative Grading Policy:

		<i>Tentative Date</i>
• Quizzes/Homework:	25%	
• Major Exam:	20%	To be determined
• Final Exam:	30%	To be determined
• Project*	25%	
Total	100%	

* A separate handout will be distributed describing the offered projects and the respective deadlines and subweights.

Tentative Course Contents:

1. Introduction to computer networks – Chapter 1 of Tanenbaum’s textbook
2. Physical layer – Chapter 2 of Tanenbaum’s textbook
3. Data link layer – Chapter 3 of Tanenbaum’s textbook
4. Medium access protocol – Chapter 4 of Tanenbaum’s textbook, plus notes
5. Network layer - Chapter 5 of Tanenbaum’s textbook
6. Transport layer - Chapter 6 of Tanenbaum’s textbook
7. Application layer - Chapter 7 of Tanenbaum’s textbook