

King Fahd University of Petroleum and Minerals
College of Computer Sciences and Engineering
 Department of Computer Engineering

COE 341 Data and Computer Communications (3-0-3)

Instructor: Dr. Marwan Abu-Amara
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Term: 061 (1st term 2006–2007)
Day & Time: SMW 01:10 PM – 02:00 PM
Location: 24-255
Corequisite: STAT 319 (Probability and Statistics for Engineers and Scientists)
Textbook: *Data and Computer Communication*, William Stalling, Prentice Hall International, 7th Edition, 2004.
Office Hours: SMW 12:00 PM – 01:00 PM (or by appointment)
Web Site: <http://www.ccse.kfupm.edu.sa/~marwan>

Tentative Grading Policy:

- Quizzes **10%** (Each quiz may carry a different weight)
- Homeworks **10%** (Each homework may carry a different weight)
- Essay Assignment **05%**
- Programming Assignment **05%**
- Major Exam I **20%** (Monday November 06, 2006 from 07:00 PM to 09:00 PM)
- Major Exam II **20%** (Saturday December 09, 2006 from 07:00 PM to 09:00 PM)
- Final Exam **30%** (***Comprehensive***)

Tentative schedule:

Week	Topic	Textbook Section
1	Communication Model - Data Communications Networking	1.1, 1.2, & 1.3
2	Protocols (characteristics and functions) and Protocol Architecture (OSI and TCP/IP models)	2.1, 2.2, 2.3 & 2.4
3	Data Transmission (concepts and terminology), Analog and Digital Data Transmission	3.1, 3.2
4	Analog and Digital Data Transmission (continued) – Fourier Series Analysis and Fourier Transform Representation	Fourier Transform (class notes)
5	Transmission Impairments – Nyquist formula and Shannon’s Capacity	3.3 & 3.4
<i>Eid Al-Fitr Vacation (October 12, 2006 – October 27, 2006)</i>		
6	Transmission Media: Guided & Wireless	4.1 & 4.2
7	Data Encoding: Digital Data – Digital Signals	5.1
8	Data Encoding: Digital Data – Analog Signals	5.2
9	Data Encoding: Analog Data - Digital Signals, Analog Data – Analog Signal	5.3 & 5.4
10	Data Encoding: Analog Data – Analog Signal (continued)	5.4 & 5.5
11	Asynchronous and synchronous data interface, Error Detection	6.1, 6.2, & 6.3
12	Flow Control (stop-and-wait and sliding window flow) and Error Control	7.1 & 7.2
13	Error Control (continued), HDLC	7.2 & 7.3
<i>Eid Al-Adha Vacation (December 21, 2006 – January 05, 2007)</i>		
14	FDM and Synchronous TDM	8.1 & 8.2
15	Synchronous TDM, ADSL, and Statistical TDM	8.2 & 8.3

IMPORTANT NOTES:

- All KFUPM regulations and standards will be enforced. Attendance will be checked each class. The KFUPM rule pertaining to a DN grade will be strictly enforced (i.e. > 9 absences will result in a DN grade). *Check your university e-mail, both KFUPM and CCSE, regularly for warnings regarding your absences.*
- If you are late to the class for more than 5 minutes (i.e. arrive after 01:15 PM), you will **NOT be allowed to enter** the classroom and you will be considered absent for that class.
- Only university approved/certified excuses will be accepted, and should be presented **no later than 1 week** after absence.
- Homeworks are to be submitted **in class** on the due date during the class period. Late homeworks will **NOT be accepted**.
- You have 48 hours to object to the grade of a homework, a quiz, or a major exam from the end of the class time in which the graded papers have been distributed back. If for some reason you cannot contact me within this period, send me an email requesting an appointment. The email should be sent within the 48-hour time period.
- **NO make up exams.** ALL homeworks and quizzes will be counted towards your grade.
- Final exam is **comprehensive**.
- General guidelines for grades:

Range	≥ 90 and ≤ 100	≥ 80 and < 90	≥ 70 and < 80	≥ 60 and < 70	< 60
Minimum Grade	A	B	C	D	F