King Fahd University of Petroleum and Minerals
Department of Electrical Engineering
EE 207: Signals and Systems (142, 2ed Semester 2015)

Text Book: Signals, Systems, and Transforms, 4th Ed. C. L. Phillips, J. M. Parr, and E. A. Riskin, 2008

Course Instructor	Office	Tel	Email	Office Hours 10:00-10:55 AM SU TU TH
Dr. Adil Balghonaim	59-1089	860-4743	adil@kfupm.edu.sa	Or by appointment

Wk	Dates	Chapter/Section Titles	Practice Problems
1	25 -29 Jan.	**Chapter 1: Introduction** 1.1: Introduction to Signals & Systems Examples **Chapter 2: Continuous-Time Signals and Systems** 2.1: Transformation of Continuous-Time Signals	
2	1-5 Feb.	2.2: Signal Characteristics 2.3: Common Signals in Engineering 2.4: Singularity Functions	
3	8-12 Feb.	2.5: Mathematical Functions for Signals 2.6: Continuous-Time Systems 2.7: Properties of Continuous-Time Systems	HW#1: 2.2 (a) , 2.4 , 2.10, 2.21 (c) , 2.23 (a), 2.24 , 2.29 , 2.30 (a,b,c,e)
4	15-19 Feb.	**Chapter 3: Continuous-Time Linear Time-Invariant Systems** 3.1: Impulse Representation of Continuous-Time Signals 3.2: Convolution for Continuous-Time LTI Systems	
5	22- 26 Feb.	3.3: Properties of Convolution 3.4: Properties of Continuous-Time LTI Systems **Chapter 4: Fourier Series** 4.1: Function Approximation	HW#2: 3.2 , 3.4 (a,c) , 3.8 (a) , 3.15 , 3.20 , 3.22, 3.25 , 3.28 (a,b for Equation (ii))
6	1-5 Mar.	4.2: Fourier Series 4.3: Fourier Series and Frequency Spectra	
7	8-12 Mar.	4.5: System Analysis 4.6: Fourier Series Transformations **Chapter 5: Fourier Transform** 5.1: Definition of the Fourier Transform	HW#3: 4.2 (a), 4.3 (i, ii), 4.5, 4.8 (b, f), 4.10 (a, c, e), 4.12 a, 4.13 (b, d), 4.19 (a, c, e), 4.22
	Tuesday 10 Mar.	**Major Exam I (up to the End of Chapter 4)**	**7:00-9:00PM**
8	15-19 Mar.	5.2: Properties of the Fourier Transform 5.3: Fourier Transform of common Functions	
		Midterm Vacation 22-26 March	
9	29-2 Apr.	5.5: Applications of the Fourier Transform 5.6: Energy and Power Density Spectra **Chapter 6: Applications of the Fourier Transform** 6.1: Ideal filters	HW#4: 5.8, 5.11, 5.12 (a), 5.17 (a, b, d), 5.19 (a, b, c, d, g), 5.27
10	5-9 Apr.	6.3: Concept of Bandwidth **Chapter 7: The Laplace Transform** 7.1: Definition of Laplace Transforms 7.2: Examples of Laplace transform	
11	12-16 Apr.	7.3: Laplace Transforms of Functions 7.4: Laplace Transform Properties 7.6: Response of LTI Systems	HW#5: 7.6 (a, c, d, f), 7.13 (b), 7.14 (c, d), 7.15 (b, d, f) (ignore the Matlab part), 7.17 (a for the differential equation (iii))
	Sunday 19 Apr.	**Major Exam II (covered material Ch5 up to the end of 7.6)**	**7:00-9:00 PM**
12	19-23 Apr.	7.7: LTI Systems Characteristics **Signal Sampling and Reconstruction** 5.4: Sampling of Continuous-Time Signals	HW#6:7.24; 7.29(b)
13	26-30 Apr.	6.4: Reconstruction of Signals from Sampled Data **(up to page 300)** **Chapter 10: Discrete-Time Linear Time-Invariant Systems** 10.1: Impulse Representation of Discrete-Time signals 10.2: Convolution for Discrete-Time Systems	HW#7: 6.14; 6.18; 6.24
14	3-7 May.	10.3: Properties of Discrete-Time LTI Systems 10.4: Difference-Equation Models *(*up to equation 10.48) **Chapter 11: The z-Transform** 11.1: Definition of z-Transform 11.2: Examples	HW#8: 10.2, 10.4, 10.5, 10.7 (b, c), 10.14 (a,b,c)
15	10-14 May.	11.3: z-Transforms of common Functions 11.4: z-Transform Properties 11.6: inverse z transform by long division and partial fraction expansion	HW#9: 11.1 (b,e,f), 11.3 (c,d,f), 11.14, 11.19
	Monday May 25	**Final Exam**	**8:00 AM**

Grading Policy:

Class Work 20 %		
Exam I : 25%	Exam II: 25%	Final Exam: 30%

Notes:

1. The course is coordinated.
2. Homework assignments will not be collected.
3. Attendance**:** Any student who misses more than 20% of the class meetings without an official excuse will receive a grade of DN in the course. To be acceptable, official excuses must be submitted to the instructor within one week of their date of issue.
4. There will be absolutely no make-ups for quizzes or exams.
5. Students caught cheating in quizzes, design project, or exams will be given a grade of F in the course and their case will be reported to higher authorities for possible dismissal from KFUPM.