

George Mason University
ECE 410: INTRODUCTION TO SIGNAL PROCESSING
 Fall 2005 Syllabus

Date	Lecture Topic	Reading	Problem Set		Project	
			Out	Due	Out	Due
T 8/30	Introduction, DT Signals & Systems	1, 2.0-2.2	1		I	
R 9/1	Signals and Systems Quiz	2.0-2.2				
T 9/6	LTI Systems, Convolution	2.3-2.4	2	1		
R 9/8	Difference Equations, Frequency Response	2.5-2.6				I
T 9/13	DT Fourier Transform	2.7-2.9	3	2	II	
R 9/15	z Transform, z Transform Properties	3.0-3.2				
T 9/20	Inverse z Transform, z Transform Properties	3.3-3.5	4	3		
R 9/22	Sampling	4.0-4.3				II
T 9/27	DT Processing of CT Signals	4.4-4.5	5	4		
R 9/29	Decimation and Interpolation	4.6				
T 10/4	Transform Analysis of LTI Systems	5.0-5.2		5		
R 10/6	Exam 1: covers material through 9/27					
T 10/11	<i>No class - Monday classes meet Tuesday</i>					
R 10/13	Linear Phase and All-Pass Systems	5.3-5.7	6		III	
T 10/18	Structures for DT Systems	6.0-6.5				
R 10/20	<i>No class; groups meet with Prof. Wage individually</i>					
T 10/25	IIR Filter Design	7.0-7.1.1	7	6		
R 10/27	IIR Filter Design	7.1.2-7.1.3			IV	III
T 11/1	FIR Filter Design	7.2	8	7		
R 11/3	FIR Filter Design	7.2-7.3				
T 11/8	Discrete Fourier Series	8.0-8.3		8		
R 11/10	Exam 2: covers material through 11/3					
T 11/15	Discrete Fourier Transform	8.4-8.5				
R 11/17	Circular Convolution	8.6				
T 11/22	Group Presentations		9		V	IV
R 11/24	<i>Thanksgiving Holiday</i>					
T 11/29	Block Convolution via the DFT	8.7				
R 12/1	Fast Fourier Transform	9.0-9.1, 9.4				
T 12/6	Spectral Analysis	10.0-10.2	10	9		
R 12/8	Short-Time Fourier Transform	10.3, 10.5				V
R 12/15	Comprehensive Final Exam 1:30pm-4:15pm					

Note: Problem set 10 is for practice only. It will not be turned in or graded. Solutions will be posted.

Other Important Dates

- September 5: Labor Day Holiday
- September 13: Last date to drop with no tuition penalty
- September 13: Last date to add courses
- September 30: Last date to drop
- October 10: Columbus Day recess; Monday classes meet on Tuesday, October 11
- November 23-27: Thanksgiving Holiday
- December 10: Last day of classes
- December 12-20: Exam period