

**George Mason University**  
**ECE 410: INTRODUCTION TO SIGNAL PROCESSING**  
 Fall 2003 Syllabus

Date	Lecture Topic	Reading	Problem Set		Project	
			Out	Due	Out	Due
M 8/25	Introduction/ECE 410 Pre-test					
W 8/27	DT Signals and Systems	1, 2.0-2.2	1		I	
M 9/1	<i>Labor Day Holiday</i>					
W 9/3	LTI Systems, Convolution	2.3-2.4	2	1		
M 9/8	Difference Equations, Frequency Response	2.5-2.6			II	I
W 9/10	DT Fourier Transform	2.7-2.9	3	2		
M 9/15	$z$ Transform, Inverse $z$ Transform	3.0-3.2			III	II
W 9/17	Inverse $z$ Transform, $z$ Transform Properties	3.3-3.5	4	3		
M 9/22	Recitation					
W 9/24	<i>Guest lecture</i>			4		
M 9/29	Sampling	4.0-4.3	5			
W 10/1	<b>Exam 1: covers material through 9/22</b>					
M 10/6	DT Processing of CT Signals	4.4-4.5				
W 10/8	Decimation and Interpolation	4.6	6	5		
M 10/13	<i>Columbus Day Holiday</i>					
<b>T 10/14</b>	Transform Analysis of LTI Systems	5.0-5.3			IV	III
W 10/15	Linear Phase and All-Pass Systems	5.4-5.8	7	6		
M 10/20	Structures for DT Systems	6.0-6.5				IV
W 10/22	IIR Filter Design I	7.0-7.1.1	8	7	V	
M 10/27	IIR Filter Design II	7.1.2-7.1.3				
W 10/29	FIR Filter Design	7.2				
M 11/3	Discrete Fourier Series	8.0-8.2		8		
W 11/5	<b>Exam 2: covers material through 10/29</b>					
M 11/10	Discrete Fourier Transform	8.4-8.6.4	9		VI	V
W 11/12	Circular Convolution	8.6.5-8.6.6				
M 11/17	Fast Fourier Transform	9.0, 9.3-9.4				
W 11/19	Block Convolution	8.7	10	9		
M 11/24	Spectral Analysis	10.0-10.2				
W 11/26	<i>Thanksgiving Holiday</i>					
M 12/1	Short-Time Fourier Transform	10.3, 10.5				VI
W 12/3	Special Topic			10		
W 12/10	<b>Comprehensive Final Exam 4:30pm-7:15pm</b>					

**Other Important Dates**

- September 2: Labor Day Holiday
- September 9: Last date to drop with no tuition liability
- September 9: Last date to add courses
- September 26: Last date to drop
- October 13: Columbus Day recess; ECE 410 meets on Tuesday October 14th
- November 26-30: Thanksgiving Holiday
- December 6: Last day of classes
- December 8-9: Reading days