

ECE 2610

Introduction to Signals and Systems

Spring Semester 2011

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Office Hrs: M&W 12:45-1:15am, M&W 3:05pm-4:00pm, others by appointment.

Required Text James McClellan, Ronald Schafer, and Mark Yoder, *Signal Processing First*, Prentice Hall, New Jersey, 2003. ISBN 0-13-090999-8.

Optional Software: The student version of MATLAB 7.x available under general software in the UCCS bookstore. Other specific programming tools will be discussed in class.

- Grading:**
- 1.) Graded homework worth 20%.
 - 2.) Quizzes worth 15% total
 - 3.) Laboratory assignments worth 20% total.
 - 4.) Mid-term exam worth 15%.
 - 5.) Final MATLAB project worth 10%.
 - 6.) Final exam worth 20%.

Topics	Text	Weeks
1. Course Overview and Introduction	1.1–1.4	0.5
2. Sinusoids	2.1–2.9	1.0
3. Spectrum Representation	3.1–3.9	1.0
4. Sampling and Aliasing	4.1–4.6	1.0
5. FIR filters	5.1–5.9	1.5
6. Frequency response of FIR filters	6.1–6.9	1.5 (exam)
7. z-Transforms	7.1–7.10	1.0
8. IIR Filters	8.1–8.12	2.0
9. Continuous-Time Signals and Systems	9.1–9.10	1.5?
10. Frequency Response	10.1–10.6	0.5?
11. Continuous-Time Fourier Transform	11.1–11.11	1.5?
12. Filtering, Modulation, and Sampling	12.1–12.4	1.5 (project)

Note: that topics 9–12 will most likely only be overviewed at the end of the semester.