TE 3302 Signals and Systems

FALL 2000

Course Name and Number: TE 3302 (11877)- Signals and Systems
Instructor: Prof. Murat Torlak
Instructor's Information: Suite 3.518, torlak@utdallas.edu
Class Time and Place: MW 3:30-4:45PM and EC 2.126
Course Web Site: www.utdallas.edu/~torlak/courses/TE3302
Office Hours: T 2:00PM-4:00PM or by appointment
Grading: Weekly homework (and/or computer) assignments (20%),
Midterm I (20%), Midterm II (20%) Final (40%).

Required Text

- Alan V. Oppenheim, Alan S. Willsky, and S. Hamid, *Signals & Systems*, Second Edition, Prentice-Hall, 1997.

Optional Texts

- B. P. Lathi, *Signal Processing & Linear Systems*, Berkeley-Cambridge Press (www.lathi.com).

- James H. McClellan, Ronald W. Schafer, and Mark A. Yoder, *DSP First: A Multimedia Approach*, Prentice-Hall, 1998.

Prerequisites: MATH 2420 (Differential Equations) and EE 3301 (Electrical Network Analysis)
Homework Policy: Collaboration on solving the homework problems is encouraged. Turning in identical homework solutions, however, will be considered cheating. Late assignments will not be accepted.
Course Description: This course will build a mathematical foundation for analyzing linear signal processing, communications, and control systems. MATLAB will be used as a software tool for the computer projects.
Tentative Course Outline:

1. Signals and Systems (Chapter 1)

2. Linear Time-Invariant Systems (Chapter 2)

3. Fourier Series Representation of Periodic Signals (Chapter 3)

4. Continuous-Time Fourier Transform (Chapter 4)

5. Sampling (Chapter 7)

6. Laplace and Z-Transforms (Some sections from chapters 9-10)

Academic Dishonesty: Please see the UTD Graduate catalog for policy on academic dishonesty. Giving or receiving aid on a graded assignment or test is considered cheating and will be harshly penalized.