SYLLABUS
EE 3317 Linear Systems (Section 001, 002)
Spring 2008

Required Textbook: **B. P. Lathi, Linear Systems and Signals, Second Edition**
                            OXFORD University Press
                            ISBN 978-0-19-515833-5

**Course Description
in Undergraduate Catalog:**   **Time-domain transient analysis, convolution, Fourier series and
                                transforms, Laplace transforms and applications, transfer functions,
                                signal flow diagrams, Bode plots, stability criteria, and sampling.**

Prerequisites: **Calculus**
                            Complex variable theory
                            Laplace transform
                            Differential equations
                            Difference equations
                            Electrical circuits
                            MATLAB

Course Learning Goals/Objectives:

Student is to acquire an:
1. Ability to analyze systems using time-domain methods including impulse response and convolution.
2. Ability to analyze systems using Laplace-domain methods including transfer function and related concepts.
3. Ability to analyze systems using frequency-domain methods including frequency response of a system and Bode plots.
4. Ability to analyze signals using Fourier series and Fourier transform.
5. Ability to applied Fourier transform to solve engineering problems.
6. Ability to use MATLAB as an engineering tool.

Course Content: **Classification of signals**
                            Classification of systems
                            System response in the time-domain
                            System stability
                            Signal analysis using Fourier series
                            Signal analysis using Fourier transform
                            Signal energy
                            Amplitude modulation
                            Sampling
                            Solution of differential equations using Laplace transform
                            System analysis in the Laplace domain
                            Block diagrams
                            Frequency response and Bode plots

Attendance and Drop Policy: Students are NOT ALLOWED to drop after the last drop date posted on
the UTA webpage. Attendance is highly recommended for all lectures,
but is not enforced.

Course Requirements, Evaluation & Final Grade:
    Examinations : Three exams will be given, including the final exam. All three exams carry equal
    weights of 25%.

(If an exam is canceled due to inclement weather or other unexpected reasons, it will take place in the subsequent scheduled class time and place unless posted otherwise on the course web. Pictured I.D. is required to take an exam. No borrowing of items including calculators, erasers are allowed in an exam. No electronic device or cell phones will be allowed in all exams except for a pocket calculator. Students are not allowed to leave during the exam unless they are done with the exam.

Homework : Homework is an essential part of the learning process. All assignments have to be turned in on time. Seeking help for homework is permitted, but you must hand in your own work without duplicating or paraphrasing other people's work. Under legitimate circumstances a late homework will be accepted with the penalty of 15% per day. Homework includes problem sets and MATLAB assignments/projects.

Missed Exams: Missed exams will be assigned a grade of 0%, unless legitimate emergency or medical reasons are given. In that case, the grade for the next exam will be substituted for the missed exam. Final is mandatory.

Make-up Work: **No make-up exams or make-up works** will be given.

Incomplete Grade: **No grade of "Incomplete"** will be given.

Grading: Homework/MATLAB=25%, EXAMS 25% each. 89% and above=A, 75%-89%=B, 60-74.9%=C, 45-59.5%=D, <45%=F.

Student Evaluation of Teaching
Evaluation forms will be given to the students at the end of the semester.

Americans with Disabilities Act:
The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112—The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act – (ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide **"reasonable accommodation"** to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with **informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.**

If you require an accommodation based on disability, I would like to meet with you in the privacy of my office, during the first week of the semester, to make sure you are properly accommodated.

Academic Dishonesty
It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22).

ANY CHEATING WILL RESULT IN SEVERE PENALTIES.

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. They include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.