ECE 5410, ELECTRONIC INSTRUMENTATION  
Summer I 2016, 3 credits  
Syllabus

Instructor: Dr. Massood Z Atashbar, Professor of Electrical and Computer Engineering.

Lecture: Monday and Wednesday 12:30 pm - 3:00pm    CEAS C0124
Office hours: Wednesdays 10:00 am-12:00 noon Any other time with previous appointment.
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Course Prerequisites: ECE 3200 (Electronics II), ECE 3710 (Linear Systems) and ECE 2510 (Introduction to Microprocessors I).

Text:


Recommended texts:


References


Potentially Useful Web Sites:

Text Author: http://www.mhhe.com/franco

Linear Technology, LTspice IV, http://www.linear.com/design tools/software/. This software will be used to simulate circuits. You are responsible for ensuring access to a working copy.

PCB 123® (PCB layout software), available from pcb123.com

Texas Instruments:  
http://focus.ti.com/docs/apps/catalog/resources/appnoteabstract.jhtml?abstractName=slod006b
National Semiconductor: http://www.national.com/
Analog Devices: http://www.analog.com/
ORCAD: http://www.orcad.com
Goal: Develop proficiency in general analog principles and design methodologies using practical devices and applications.

Tentative course outline (subject to revision):

- Active Filters (First-Order Active Filters, Audio Filter Applications, Standard Second-Order Responses, KRC Filters, Multiple-Feedback Filters, State-Variable and Biquad Filters, Sensitivity, Filter Approximations, Cascade Design, Generalized Impedance Converters, Direct Design, The Switched Capacitor, Switched-Capacitor Filters, Universal SC Filters)

Evaluation:

Home works and projects 10%; as assigned
Test #1 35%; Wednesday June 1, 2016
Final Examination 55%, Wednesday June 24, 2016

Late submission:

Homework and/or projects may be accepted up to 2 working days after the due date with being penalized by 30%.

Grading policy:

A: 91-100; BA: 86-90; B: 81-85; CB: 76-80; C: 71-75; DC: 66-70; D: 61-65; E: 0-60.

Note:

You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate (pp. 268-270) [Graduate (pp. 24-26)] Catalog that pertain to Academic Integrity. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Judicial Affairs. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.