

ECEn 313. Electronic Circuit Design 1

Catalog Description:	ECEn 313. Electronic Circuit Design 1. (5:4:3) F, W, Sp Analysis and design of linear and nonlinear electronic circuit building blocks.	
Course Type:	Engineering Topics	
Prerequisites:	ECEn 212	
Textbooks and/or other required materials	<i>Fundamentals of Electronic Circuit Design</i> by Comer and Comer.	
Topics Covered:	Review of circuit principles, amplifier parameters, Op Amps, Diodes, BJT's, MOSFETS, Integrated circuit components, CMOS devices.	
Course Competencies:	Ability to apply electronic device models to the solution of a circuit problem.	Outcome 1
	Ability to understand and develop circuit designs in a professional manner.	Outcome 3
	Ability to use specialized circuit analysis techniques including approximate equivalent circuits.	Outcome 11
	Ability to apply appropriate techniques to evaluate the performance of electronic amplifiers.	Outcome 11
	Laboratory	
	Ability to relate circuit theory to practice.	Outcome 1
	Operational amplifier design project.	Outcome 2
	Ability to design an integrated circuit operational amplifier.	Outcome 3
	Ability to document engineering/experimental results and to write summary reports.	Outcome 7
	Ability to use Spice.	Outcome 11
Ability to use oscilloscopes, function generators, and DC power supplies	Outcome 11	
Schedule:	Lectures: One hour MTWF Laboratory: 3 hours once each week TA Recitations: One hour MW	
Prepared by:	Dick Selfridge	
Date:	June 24, 2008	