

2013 Scanning Sheet. Assignment Description: \_\_\_\_\_ Instructor: \_\_\_\_\_ Date: \_\_\_\_\_ Scanned File Name: \_\_\_\_\_

ABET Outcomes											Rubric or student %	Example problem	Outcome #	EE 333 Digital and Analog Electronic Systems (3) – Outcomes Reviewed 2013
A	B	C	D	E	F	G	H	I	J	K				
1		1		1									1	Analyze and apply different negative feedback topologies for BJT and MOSFET circuits.
	1	2		1					1	1			2	Analyze and apply CMOS logic and BJT logic circuits, its design and simulation with SPICE.
		2		1					1	1			3	Analyze and design filter circuits, and simulate with SPICE
1	2	2							1	1			4	Demonstrate knowledge of the fundamentals of positive feedback and its application in oscillator circuits.
1		2		1					1	1			5	Analysis and design of different type of oscillation circuits and their simulation with SPICE
1	2	2							1	1			6	Analyze the operation of wave-shaping circuit and the design of monostable, bistable, and astable multivibrator. Verification of multivibrator design with SPICE.
	1	2							1	1			7	Demonstrate knowledge of the operation and analysis of different types of memories.
		2							1	1			8	Design and simulation of emitter-coupled logic
		2							1	1			9	Demonstrate knowledge of the elements of D/A conversion and A/D conversion
1		1		1									10	Analyze CMOS operational amplifier, and simulation of operational amplifier with SPICE.
1		1		2									11	Demonstrate knowledge of the trade-off between gain and bandwidth in negative feedback amplifiers along with the effect on input and output impedance when feedback is utilized.

1=supporting contribution  
2=significant contribution

<b>Rubric</b>  5: Excellent Mastery of Outcome By Vast Majority of Students 4: Good Mastery of Outcome By Vast Majority of Students 3: Adequate Mastery of Outcome By Majority of Students 2: Marginal Mastery of Outcome By Most Students 1: Lack of Mastery of Concept By Most Students	a. an ability to apply knowledge of mathematics, science, and engineering	
	b. an ability to design and conduct experiments, as well as to analyze and interpret data	
	c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	
	d. an ability to function on multi-disciplinary teams	
	e. an ability to identify, formulate, and solve engineering problems	
	f. an understanding of professional and ethical responsibility	
	g. an ability to communicate effectively	
	h. the broad education necessary to understand the impact of engineering solution in a global, economic, environmental, and societal context	
	i. a recognition of the need for, and an ability to engage in life-long learning	
	j. a knowledge of contemporary issues	
	k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	
	Improvement Suggestions or Comments:	