

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

ABET Outcomes											Rubric or student %	Example problem	Outcome #	EE 487 RF Systems Engineering (3) – Outcomes Reviewed 2013
A	B	C	D	E	F	G	H	I	J	K				
				1							2		1	Understand noise in passive and active components at RF frequencies; assess Noise Figure
		1		1				1			2		2	Use impedance transformation techniques in different circuits for RF applications
		1		1				1			2		3	Analyze and design sine wave oscillators for RF applications
				1				1	1		2		4	Analyze and interpret various analog and binary digital modulation schemes
		1		1				1			2		5	Analyze and design Mixers used in RF communication systems.
		1		1				1			2		6	Analyze the FET and BJT amplifier Models
		1		1				1			2		7	Design RF amplifiers using Scattering Parameters.
		1		1				1			2		8	Design Low Noise Amplifiers (LNAs)
														Evaluate the propagation path loss for a communication system and use this path loss in the Link budget analysis of the System
		1		1				1			2		9	
		1		1				1			2		10	Analyze and design power amplifiers at RF frequencies
				1				1			2		11	Understand the operation of antennas for transmission and reception

1=supporting contribution  
2=significant contribution

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2=significant contribution

Rubric  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
Improvement Suggestions or Comments:	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