

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

ABET Outcomes											Rubric or student %	Example problem	Outcome #	EE 453 Advanced Communication Engineering (3) – Outcomes Revised 2013
A	B	C	D	E	F	G	H	I	J	K				
2				2			2			1			1	Discuss the Fundamentals of RF and microwave communication systems.
2				2			2			1			2	Evaluate the source entropy and the average information rate using information theory.
2		2		2			1			1	1		3	Comprehend the basic principles of digital data transmission. Understand the fundamental design requirements and differences between analog and digital communication systems.
2		2		2			2	1	1	1			4	Learn the process of Base band formatting and modulation techniques for digital transmission.
2		2		2			2	1	1	1			5	Evaluate the principles of base band demodulation principles for digital data signal.
2		2		2			2	1		1			6	Analyze band pass modulation and demodulation for digital communications.
2	2	2		2			2	1		2			7	Demonstrate the skill for Link Budget Analysis for communication systems.
2				2			2	1					8	Evaluate modulation and coding rate for digital communications
2		2		2			2			1			9	Apply the principle of Phase locked Loop receivers and frequency synthesizers
2		1		2			1			1			10	Apply the synchronization techniques in digital communications
2		1		2			2		1	1			11	Evaluate the coding principles involved in digital communications.
2		2		2			2	1		1			12	Evaluate intermodulation and cross modulation effects in digital communication.
2		2		2			2						13	Understand spread spectrum techniques.

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:	