

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

ABET Outcomes											Rubric or student %	Example problem	Outcome #	EE 484 VLSI Design (3) – Outcomes Revised 2016	
A	B	C	D	E	F	G	H	I	J	K					
				1						1			1	Recognize and analyze basic VLSI logic families including: A. Static CMOS B. Pass transistor logic C. Dynamic logic D. Mixed bipolar – MOS logic	
		1		1										2	Identify the basic parasitic elements present in VLSI designs and their effects.
		2		1										3	Optimize VLSI logic to meet A. Speed specifications B. Power limits
		2		2			1	1	1	1				4	Design both static and dynamic logic circuits compatible with VLSI design principles.
		2		2										5	Understand and are capable of analyzing special purpose digital structures including: A. Memory B. Schmidt triggers C. Phase-locked loops
1				1									2	6	Apply Synopsys application environment to the development of VLSI circuits.

1= supporting contribution
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
	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: