2014 Scanning Sheet. Assignment Description:_____ Instructor:_____ Date:_____ Scanned File Name:_____

ABET Outcomes											Rubric or student %	Example problem	Outcome #	EET 143 Integrated Technology III (4) - Outcomes Reviewed 2016
A	B	C	D	E	F	G	H	I	J	K				
1	1	1											1	Design and analyze arithmetic circuit components—adder (carry ripple and carry lookahead), subtractor, overflow detector, shifter, and rotator.
1	1	1											2	Analyze and design circuits and timing issues for latches and flip-flops.
1	1	1											3	Design counters and shift registers using flip-flops.
1	1	1											4	Use the 555 timer chip to generate clock signal with a specified frequency.
2	2		2		2								5	Use a HDL such as VHDL to describe combinational and sequential circuits using structural style modeling.
2	2		2		2								6	Use a HDL such as VHDL to describe combinational and sequential circuits using data flow style modeling.
2	2		2		2								7	Use a HDL such as VHDL to model combinational and sequential circuits using behavioral style modeling.
2	2		2		2								8	Write test bench to simulate digital circuit using a chosen HDL such as VHDL.
2	2		2		2								9	Design sequential circuits using Mealy model and Moore model.
2	2		2		2								10	Optimize sequential circuits (finite state machines) by performing state reduction and state assignment.
2	2		2		2								11	Implement digital circuits using discrete TTL chips, PLAs, PALs, CPLDs, and FPGAs.
1	1	2				2			2	2			12	Effectively prepare written reports on laboratory experiments which discuss ethical ramifications of using computer components in different applications and develop presentations on the results of experiments and projects for distribution through electronic media.
2	2	2	2		2								13	Use commercial design software (for example, Altera Quartus II or Xilinx ISE) to enter, compile, and debug programs written in the chosen HDL and download the output to a FPGA (or CPLD) demo board to test the described digital circuit.

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

Improvement Suggestions or Comments:

a.	an ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly defined engineering technology activities
b.	an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies
c.	an ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes
d.	an ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives
e.	an ability to function effectively as a member or leader on a technical team
f.	an ability to identify, analyze, and solve broadly-defined engineering technology problems
g.	an ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature
h.	an understanding of the need for and an ability to engage in self-directed continuing professional development
i.	an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity
j.	a knowledge of the impact of engineering technology solutions in a societal and global context; and
k.	a commitment to quality, timeliness, and continuous improvement.