

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

ABET Outcomes											Rubric or student %	Example problem	Outcome #	EET 441 Embedded Systems (4) - Outcomes Reviewed 2013
A	B	C	D	E	F	G	H	I	J	K				
2	2	2	2		2		2						1	Describe, understand and construct circuits which interface between microprocessor components and mixed digital/analog circuits.
2	1		1		1		1						2	Describe, understand and configure data ports for parallel and serial data microprocessor interfacing.
2	1		1		1		1						3	Understand and configure microcontroller peripheral functions for serial communication using integrated development environments.
2	1		1		1		1						4	Understand the function and application of interrupt behavior and timer behavior in a microcontroller device.
2	1		1		1		1						5	Understand and develop applications which use threads and multi-threading in real-time design.
2	2		2		2		2						6	Understand and develop applications to utilize interrupt priority layers and concepts associated with subsumption.
2	2		2		2		2						7	Develop applications exercising the on-processor communication peripheral functions for I2C and SPI communication between microcontrollers.
2	1		1		2		1						8	Develop control schemes for open and closed loop robotic motor and drives applications and the required hardware interfacing.
							2						9	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		1	2					10	Demonstrated competency in the use of a microcontroller/microprocessor demonstration board including hardware interfacing to external components, the protoboard and multimeter equipment and an understanding of the responsibilities associated with working in an electronics laboratory.

1=supporting contribution

2=significant contribution

<p>Rubric</p> <p>5: Excellent Mastery of Outcome By Vast Majority of Students</p> <p>4: Good Mastery of Outcome By Vast Majority of Students</p> <p>3: Adequate Mastery of Outcome By Majority of Students</p> <p>2: Marginal Mastery of Outcome By Most Students</p> <p>1: Lack of Mastery of Concept By Most Students</p>

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.

Improvement Suggestions or Comments:
