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

ABET Outcomes											Rubric or	Example	Outcome	EET 484 Microprocessor II (4) - Outcomes Revised 2013
A	B	C	D	E	F	G	H	I	J	K	student %	problem	#	
2	2												1	Understand the basic architecture of a chosen MCU to include internal memory, memory addressing, I/O ports, clock and timers and electrical characteristics sufficient to interface external hardware components to the microcontroller.
		2											2	Understand the function of and usage of the chosen software toolset suitable for debug and programming of the chosen microcontroller and the hardware interface of the debug module.
1	1	2											3	Be able to generate clock signals to be used by the MCU and peripherals.
1	1												4	Be able to use the UART serial interface to communicate with a PC.
1	1	2											5	Understand the electrical characteristics and design requirements for externally (to the microcontroller) connected interface devices such as de-bounced switches, matrix keypads, LEDs and externally driven devices such as motors and speakers.
		2	2		2								6	Write ANSI C programs to send and receive data via the I2C and CAN protocols and understand the design requirements of differential driven data transmission over twisted pair wiring.
		2	2		2								7	Write ANSI C programs to control external (to the microcontroller) devices through the use of interrupts and understand the hardware driver circuitry interfacing external hardware PWM signals and the microcontroller.
						2							8	Effectively prepare written reports on laboratory experiments.
						2							9	Present results of communication interface design project coherently and field questions during the presentation.
		2	2		2								10	Be able to handle the electrical compatibility issue between two different IC technologies.

Total Significant Course Outcomes Mappings a-k
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.