



CONTINUING STUDIES, CORPORATE
AND DISTANCE EDUCATION

Microprocessors B – Spring 2011 (Syllabus)

Course Number: 17.384 **Work:** 207-438-3290
Instructor: Dohn Bowden **Home:** 978-851-0153
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Text:

1. Reese, Bruce, Jones, *"Microcontrollers - From Assembly Language to C Using the PIC24 Family"*, Course Technology/Cengage Learning, 2009
2. **OPTIONAL** – Kochan, *"Programming in C"*, 3rd ed, Sams Publishing, 2005
3. Various on-line documents – see website

Prerequisite: 17.383

Course Description: Extends skills developed in 17.383 to interfacing the microcontroller to the outside world through an integrated set of experiments and related lectures. The course will contain a final project applying the functions learned to a real world design. Approximately one-half of the course will be an associated laboratory.

Course Calendar: Tuesday class 6:00 – 9:00 PM

<i>Week</i>	<i>Date</i>	<i>Topics</i>	<i>Lab</i>	<i>Lab Results Due</i>
1	01/25/11	PIC pin out, C programming, Watchdog Timer, Sleep		
2	02/01/11	General-purpose IO, LED/switch IO, FSM	1	
3	02/08/11	Lab	1 con't	
4	02/15/11	Interrupts, Timers, interrupt-driven IO	2	1
5	02/22/11	Lab	2 con't	
6	03/01/11	Asynchronous and Synchronous Serial IO (UART, I ² C, SPI)	3	2
7	03/08/11	Exam #1		
X	03/15/11	No Class – Spring Break		
8	03/22/11	Lab	3 con't	
9	03/29/11	Serial EEPROM operation, DAC, DC motor control, Servos, Stepper motor control	4	3
10	04/05/11	Lab	4 con't	
11	04/12/11	Advanced Hardware Topics		4
12	04/19/11	Exam # 2		
13	04/26/11	Work on Course Project		
14	05/03/11	Final Exam/Course Project Brief and Demonstration		

General info: Attendance will be taken. **Lab material must be returned or INC grade will be awarded until material is returned.**

Grading Policy:

Exam #1 (20%), Exam #2 (20%), Laboratory (30%), and Final Exam/Course Project (30%)

A	93-100	B+	87-89	C+	77-79	D+	67-69
A-	90-92	B	83-86	C	73-76	D	60-66
		B-	80-82	C-	70-72	F	Below 60