NORTHERN MICHIGAN UNIVERSITY
Department of Electronics
Winter Semester 1997

ET 410: Computer Interfacing (3 credits)

Lecture: JC 205 Sat 9:00 to 10:40
Laboratory: JC 206 Sat 11:00 to 12:40

Professor R.M. Laurie
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Office Hours: Monday 10AM-11AM, Noon-2PM; Tuesday 10AM-Noon;
Wednesday 10AM-11AM, 1PM-2PM; Friday 11PM-Noon, 2:00-5:00; Sat 12:40-1:40
Also by arrangement Monday 3PM-5PM, Tuesday 3PM-4PM (Tell me first)

Course Summary

This course will explore computer interfacing. Sensors will be used as data input devices while digital and analog outputs will be used to perform control. Programs will be created using both the "C" programming language and Labtech Notebook software. Labtech Notebook is a Windows software package which uses a graphical programming language and graphical displays. ET111 is the pre-requisite for this class.

Books

W. Rigby and T. Dalby, ***Computer Interfacing,*** 1995, Prentice Hall
W. Rigby and T. Dalby, ***Laboratory Manual - Computer Interfacing,*** 1995, Prentice Hall

Grades

Scores received from the midterm exam, the final exam, and programming assignments will be used to compute final grades. I encourage students to study together and will not curve scores. Class attendance is mandatory.

SCORES:

Quizzes		100
Final Exam		120
Laboratory		180
Total	=	400

SCALE: (% of points)

A	93 - 100		
A-	90 - 92	C	73 - 76
B+	87 - 89	C-	70 - 72
B	83 - 86	D+	67 - 69
B-	80 - 82	D	63 - 66
C+	77 - 79	D-	60 - 62
		F	59 and below

Laboratory

You will work closely with a lab partner throughout the course. The same grade will be given to both lab partners so work together as a team. After you have completed all activities and answered all questions in the lab manual, submit one lab manual to the instructor for the grade. For labs requiring programming you must print out the source code and demo the working program for the instructor. During the next class the instructor will grade the covered material while you are setting up the next lab. The instructor will then sign and date the source code printout to verify that all programming specifications have been met. Grading will be 80% objective (results, explanations, conclusions) and 20% subjective (neatness, clarity, conciseness, extra work). A lab that barely meets all specifications will receive and 85% The lab must be completed one week after the lab is assigned. If the lab is late, 20% will be deducted for each workday late. Lab attendance is mandatory. You will receive a zero for the lab if you are absent, unless a valid documented reason is provided.

ET 410 Course Schedule - Winter Semester 1997

Date:	Topics:	Read Before Class:
Week 1	Introduction Lab 1: About your Computer [10 Points]	
Week 2	Lab 2: Interfacing System [10 Points]	Chap 1, 2
Week 3	Lab 3: Labtech Notebook [10 Points]	Chap 4
Week 4	Lab 4: Signal Conditioning [10 Points]	Chap 5 and handout
Week 5	Lab 5: Time of Day [10 Points]	Chap 5 and handout
Week 6	Lab 6: Digital Input [15 Points]	Chap 6
Week 7	Lab 8: Digital Output [15 Points]	Chap 7
Week 8	Lab 7 & 9: Digital Input and Output CIO-DIO24 [15 Points]	
Week 9	Variable Scope and Functions Lab 10: Digital Conditioning [15 Points]	Chap 8
Week 10	Lab 11: Analog Input [15 Points]	Chap 9
Week 11	Lab 12: Analog Output [15 Points]	Chap 10
Week 12	Lab 13: Serial Input/Output [15 Points]	Chap 11
Week 13	Simple Pointers Lab: Project Week 1 [25 Points]	Chap 12
Week 14	Review Lab: Project Week 2	
	*** FINAL EXAM *** Proposed Monday April 28 Noon to 1:50PM	

NOTICE: *If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 405 Cohodas (Tel: 227-1550). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and university guidelines.*