EE260: Microprocessors (Spring 2006)

Instructor: Claudio Talarico
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Office Hours: MW 1:00-3:00, R 11:00-12:00 and by appointment.
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Course URL: http://www.ewu.edu/x30360.xml

Class Location and Schedule:
MTW 12:00-12:50, CEB 106
R 12:00-1:50, CEB 225

Brief Course Description:
This course introduces the fundamental concepts and practices required to design a microcontroller-based system. The main topics covered are: microprocessors/microcontrollers organization, assembly language, use of development systems, memory devices, peripherals and interfacing design methods. The laboratory sessions provide hands-on experience with the concepts and techniques presented in the lectures.

Prerequisites:
EE160 (Digital Design) and CSCD255 (C programming for engineers) or consent of the instructor.

Textbook:
P. Spasov, Microcontroller Technology. The 68HC11 and 68HC12, Prentice-Hall, 5/e, 2004

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
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<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Labs</td>
<td>30%</td>
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<tr>
<td>Midterms</td>
<td>20%</td>
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<tr>
<td>Final</td>
<td>30%</td>
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Letter: Points: Percentage:
A 3.5-4.0 90%-100%
B 3.0-3.4 89%-80%
C 2.0-2.9 70%-79%
D 1.0-1.9 60%-69%
F 0.9-0.0 0%-59%

- Late work will NOT be accepted.
- For each assignment 10% of the score will be devoted to the “quality of delivery”
- Students can work on assignments in groups of 2 or 3.
Discussion is encouraged but **NO** copying or inter group effort is allowed.

Any source of help including the web, software packages, publications other than the textbook, classmates, roommates, relatives, friends, friends of friends, etc. must be explicitly cited.

Grades and solution to assignments/exams will be posted on blackboard. Make sure to register as soon as possible.

**Attendance Policy:**
Missing class will have a negative impact on the final grade for the course. Three or more unexcused absences will reduce your course total points by 10%.

**Academic Integrity:**
Violations of academic integrity code will be sanctioned. Violation of academic integrity involves the use of any method enabling a student to misrepresent the quality of his or her own academic work or the work of a fellow student. Students committing academic dishonesty will be reported to the appropriate university official and an XF for this course will be recorded on the student’s transcript. In cases where the student has an existing record of academic dishonesty, a more severe penalty may be sought (e.g. dismissal from the university).

**Tips to do well in Class:**
1. Don’t miss a class. Material will be covered that is not in the textbooks but it will be on the exams.
2. Come to lecture, possibly stay awake, **take notes**, and ask questions.
3. Review your notes and do the reading ahead of time. The exams will cover basic information and concepts both from the textbooks, and class discussions.
4. Turn in all assignments on time and take all exams. A missing homework/exam will drop your grade significantly.

**Course outline:**
- Introduction to Microcomputer Systems
- Information Representation
- Microcomputer Architecture
- Assembly Language Programming
- I/O Programming
- Interfacing Techniques