EE 308L/MENG 483 Syllabus

Instructor / TAs

Dr. Hector Erives - Instructor
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Isaac Bamonte - Lead TA
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Help Hours: W 17:00 - 20:00 in Digital Lab

EE 308L

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MENG 483L

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Help Hours: T, R 17:00 - 20:00 Weir 131
F 16:00 - 19:00 Weir 131

Topics / Learning Objectives

The functionality of the HCS12 microcontroller will be explored. Assembly & C-Language Code will be used to complete varying tasks by modifying Hardware and Software Interrupts, timer functions, I/O systems, pulse width modulation, analog to digital conversion, and PID control systems.

Class Grade Breakdown

Lab Books:	65%
Midterm Report:	15%
Final Report:	20%
Total:	**100%**

Late Policy

Absences without prior notification will result in a failure for the lab assignment. For any special circumstances, an email must be sent to the lead TA in advance. Also, any pre-labs turned in 15 minutes past the start of lab will not be graded. Lab books will be due on **Monday by 3:00PM** for Thursday's lab session and **Tuesday by 3:00PM** for Friday's lab session. Late lab books will

be docked 20%. However, the lowest lab grade will be dropped at the end of the semester. If all labs are completed before the final lab session, a make-up lab will be held to replace a lab grade.

Lab Book Format and Expectations

The lab books consist of 5 sections: an Abstract, Background, Procedure, Results/Discussion, and Conclusion. Also, a signature from a TA is required to prove that the lab was completed. A brief description of the parts which go into each section is given on the next page.

The **Abstract** consists of 4 to 5 sentences and is used to summarize the entire report before it is read. The first sentence describes the purpose of the laboratory exercise, then the main part of the procedure is given, next the results are summarized, and finally a concluding sentence.
The **Background** can be varying lengths but it must give information which another engineer will need to understand your report, which usually includes explaining new topics specific to the current lab.
The **Procedure** briefly describes the lab exercise so that you can repeat it at a future time with only your lab book. It is best to briefly summarize each step.
The **Results/Discussion** includes specific things learned or designed which helped you finish the lab. Also, if any measurements were taken, they must be included and explained. Any questions posed by the lab must also be answered.
The **Conclusion** consists of 3 to 5 sentences and summarizes the purpose, methods used in completing the lab, results, and a concluding sentence.

Formal Reports

Two formal reports will be assigned over the course of the semester. A first report will be assigned near the middle of the semester. The second report will be a final report, assigned at the end of the semester. Both reports will be on the topics covered in lab. More information will be given as the time approaches.

Safety

Students are required to wear safety goggles when working with any electronic hardware devices.

Counseling & Disability

The Counseling and Disability Services office is open to all students, free of charge. If counseling is needed or if you have a disability, contact the office by calling *575-835-6619*, sending an email to counseling@admin.nmt.edu, or by visiting the office located in the Fidel Center 1st floor through the NW side of the building.

Academic Honesty

Teamwork is greatly encouraged for all lab assignments. All code must be individually typed, and cannot be copied. Lab books must be individually written and any plagiarism will not be tolerated.

Students are encouraged to work together to understand the prelab and develop solutions, within the following guidelines:

1) NEVER cut & paste code from another student in order to complete the prelab or lab. The only code you should cut and paste is the code provided as part of the course material (lab instructions, lecture slides, etc).
2) When using an algorithm you developed as a group to complete an assigned task you need to make sure you understand how it works.

Emergencies

In an emergency, call Campus Police at *575-835-5555* or dial 911.