

EET363 Introduction to Microcontrollers

Course Overview

Oregon Institute of Technology, Portland West, Fall 2010

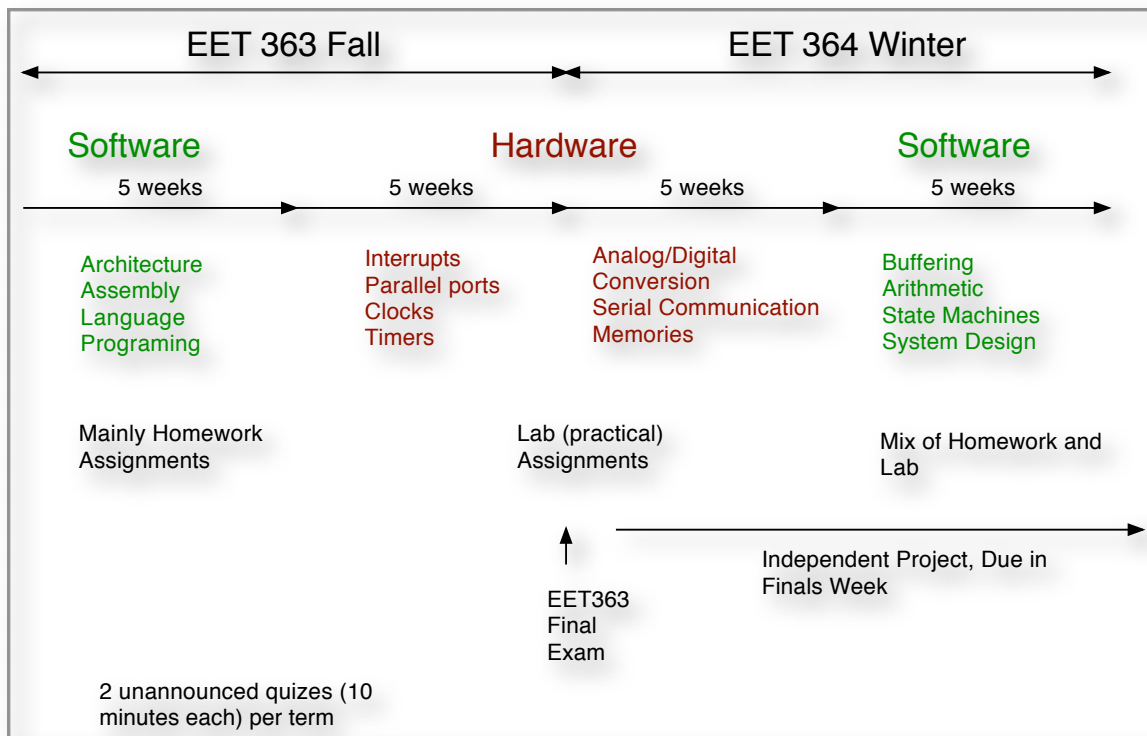
INSTRUCTOR: Tom Almy

PHONE: xxx-xxx-xxxx (evenings before 10PM)

E-MAIL: xxxxx assignments to xxxxxx

OBJECTIVES: The student will be able to demonstrate the use of a microcontroller using the Freescale Semiconductor 68HCS12. The student will be able to program and use the various features of the 68HCS12 to perform tasks in measurement, control, and user interaction.

Here's a look at the two term sequence and how it is organized:



CLASS MEETINGS: We will meet on Thursdays from September 30 through December 9 starting at 5:30 PM, sharp. There will generally be 1.5 to 2 hours of lecture followed by lab time, during which the instructor will be available for assistance and to answer questions. Classes end at 9:50 PM.

REQUIRED TEXTBOOK AND HARDWARE: *Designing with Microcontrollers – The 68HCS12*, by Tom Almy, which is on the CD and supplied to students for free. Printed copies will be available at cost, \$14. Dragon12-Plus board and documentation available at www.evbplus.com. The board is \$159 (plus shipping). The board (and textbook) are also used in EET364, so you will have no additional supply expense next term.

COMPUTER USAGE: The text, 68HCS12 documentation, and all assignments are accessible on the CD. There is also a 68HCS12 simulator program, assembler, and C compiler for use in class or at home. Computer access is necessary outside of class.

READING ASSIGNMENTS: There are weekly reading assignments from the text and 68HCS12 documentation. Because of time constraints, not all the material is planned to be covered in class, but questions will be answered about all the material so please read in advance of class and have questions ready.

HOMEWORK AND LAB ASSIGNMENTS: There is a variety of assignments during the term, some of which are considered homework and some, which require writing short programs for the 68HCS12, are considered labs. For convenience, all assignments are given the same weight even though they will vary in difficulty. In general, there is an assignment due in the week following that which the material is covered in class. It is advantageous to start the assignment in the lab time after lecture in the class period.

Homework assignments are discussed in class on the day they are due, so they must be turned in at the start of the class sessions. Lab assignments are due at the end of the session to give more time to resolve any problems. There is a penalty of 10% per week or fraction thereof for lab assignments. All assignments are to be submitted via E-MAIL to xxxxxxxx.

Assignments should be submitted as a single file, PDF preferred, or Microsoft word DOC or DOCX otherwise. The name of the file should be your name and the assignment number.

There are a reduced number of assignments this year, but they are more “practical” than “book knowledge”. In return, I expect everyone to work independently. You may not develop a program as a group and submit it in separate lab reports. I expect to see every program to be unique.

QUIZZES AND FINAL EXAM: There will be three unannounced quizzes during the term. These quizzes each has ten multiple choice questions, and are allowed ten minutes to answer. There will be no final exam.

ABSENCES: Students are expected to attend all class sessions except for illness, personal emergencies, or job requirements. That does not mean students are

EET363 Course Overview, Fall 2010

excused from missed assignments. All assignments are due according to schedule. If a student misses one of the quizzes, the grade will be taken to be the average of the other two quizzes. A grade of Incomplete is generally not available for this course.

CELL PHONES: Please turn off cell phones (or have them on "vibrate") during the lectures to avoid disrupting the class.

STUDENT FEEDBACK: For my own benefit in improving my teaching style, there will be a 30 second student feedback form to fill out at the end of each class. In return you will get 0.5% of the final lecture grade no matter what you say. That works out to 4.5% of the final EET 363 grade available for 10 minutes of work. What a deal! As an additional bonus, you get a chance to ask an anonymous question. Answers to questions are posted on the class forum.

ON-LINE CLASS FORUM: A class forum is used for communication to the entire class or for students posing questions or comments about the course for the class to read. The site is xxxxxxxx and you will have to create an account in order to use the forum. It is recommended that you check the forum on a daily basis to check for new postings.

GRADING: Numeric grades are converted to letter grades based on the chart, below. There are three homework assignments and five lab assignments, each worth 8% of the total grade. The quizzes are each worth 5%, the feedback forms 5% (total), and the final exam is worth 21%.

Numeric Grade	Letter Grade
90 and up	A
at least 80, but less than 90	B
at least 70, but less than 80	C
at least 60, but less than 70	D
less than 60	F