# University of Texas At El Paso
## Department of Electrical and Computer Engineering
## EE 3376 Microprocessor Systems I
## Fall 2018 Syllabus

**Course Description:**

   Study of microprocessor programming models, assembly language, macro assemblers, and an introduction to system integration and interfacing.

**Prerequisites:** EE 2369 (Digital System Design I), EE 2372 (Software Design I), and EE 2351 (Electric Circuits II), each with a "C" or better
**Prerequisites by Topic:** Computer Programming Skills, Digital Circuits, and Passive RLC Circuits.
**Corequisite:** EE 3176

   This course prepares you for: EE 4342 Digital System Design II, EE 4356 Real Time Signal Processing, EE 4372 Microcontroller Applications, and EE 4378 Microprocessor Systems II

**Course Outcomes:** Students completing EE 3376 and the EE3176 lab will be able to:

1. Write assembly language programs.
2. Explain program organization and general software environment of a microprocessor system.
3. Understand the basic features of computer hardware.
4. Understand system integration and interfacing at a basic level.
5. Demonstrate competence in written technical communication.

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| **Instructor:** | Rodrigo Romero, Ph.D. |
| **Office:** | 303 Engineering Bldg. |
| **Phone:** | 747-6090 |
| **Email:** | raromero2@utep.edu |
| **Office hours:** | MW 10:30 PM – 11:30 AM of by appointment |
| **Required text:** | Programmable Microcontrollers with Applications – MSP430 LaunchPad with CCS and Grace. Cem Ünsalan and H. Deniz Gürhan. ISBN 978-0-07-183003-4. McGraw Hill |
| | Available online from the Library Access Engineering volumes at: http://0-accessengineeringlibrary.com.lib.utep.edu/browse/programmable-microcontrollers-with-applications-msp430-launchpad-with-ccs-and-grace |
| | Lecture notes and lab reference information will be available on the course website. |
| **Class Notes:** | http://www.ece.utep.edu/courses/web3376/EE3376.html |
| **Lab Kit:** | Buy HKN-provided MSP430 lab kit from E336 EE lab (across from IEEE lounge) |
| **Optional:** | Software Code Composer Studio (Free Student Version with 16K support) |
| **Lab TA:** | Evren Atli, eatli@miners.utep.edu |
| **Class TA:** | Deeksha Seetharama-Bhat , dseetharama@miners.utep.edu |

**Grading:**

| Element | Weight & Comment |
|---|---|
| Midterm Exams: | 20% each. |
| Quizzes: | 10%. |
| Homework & assignments: | 20%. Will not be accepted late. |
| Final Exam: | 30%. Comprehensive. Depending on student's performance in the term project, the final grade for the course may ignore the lowest exam grade. |

**Attendance:** Attendance in the lab and lecture will be recorded using a sign-in sheet, and the attendance sheet will be picked up ten minutes after class begins. Students that arrive after the attendance sheet is picked up during lecture and/or lab will be considered absent for that lecture/lab day. <u>The student's grade will be decreased one letter grade for every 3 absences.</u> When absent, the student is responsible for obtaining notes, handouts, and assignments and will be required to meet the same deadlines as the rest of the class. Excused absences are limited to documented religious holidays and UTEP sponsored activities only. If you do have an emergency, please notify the instructor as soon as possible. Emergencies happen, unexpected situations arise, and you should use common sense and safe precautions when trying to get to lecture and/or lab.

**General Policies**

If a student requests a deviation from this syllabi for any specific reason (and I agree), the student should send via email a description of the modifications to me for the record.

American Disabilities Act: If you feel you may have a disability that requires accommodations, contact the Disabled Student Services Office at 747-5148 or go to room 106E of the Union.

Final lab project in EE3176 must be done from scratch. Discussions about concepts between students is permitted but code suspected of being copied (other than from the webpage) will be reported to the Dean of Students. No exceptions.

If you have 3 finals on the same day, you can ask for a reschedule of the middle final. If EE3376 is the test, you can request to have the final on dead day after showing printed proof of the three tests on one day.

Academic Dishonesty – See course website for details.

Homework is not accepted late (see exceptions below). If you miss class, contact the professor or a classmate to find out what work was assigned or if any important announcements were made. The only exceptions for accepting late assignments include a medical emergency requiring hospitalization, jury duty, attendance of a funeral of an immediate member of you family, or official UTEP business. Documentary proof of any of the above must be provided before or immediately after the fact.

Grading options for EE3376:

1)  Lowest of midterm exams may be replaced by final, so final exam counts for %50 of total.
2)  If final is the lowest grade of the exams, no exam is dropped and final counts for 30%.
3)  There are no make-up exams except for documented unavoidable urgent circumstances.

Listening to or watching any device is not allowed during any instruction, lecture, quiz, or exam.

Incompletes or "I" grades will be considered for students completing satisfactory or better work and having serious legitimate situations beyond their control requiring additional time to complete the course requirements. Withdrawals must be completed by students on or before the final date to drop a course with a "W". After that date, grades of W may only be assigned in exceptional circumstances after a written petition from a student and with the approval of the faculty member and the academic dean.