Faculty & Staff

**Instructor:** Amirhossein Chinaei  
**WWW:** http://www.ece.uprm.edu/~ahchinaei  
**Office:** Terrats-216 (temporary)  
**E-mail:** ahchinaei@ece.uprm.edu  

**TA:** Manuel Oran  
**Office:** ICDL (Lab)  
**E-mail:** manuel.oran@upr.edu

**Office hours**

*By Instructor:* Mondays and Thursdays 2:45-3:45 or by email appointment  
*By TA:* Tuesdays 3:00-5:00 and Fridays 8:00-10:00 or by email appointment

**Course Syllabus**

Architecture, organization, and operation of microprocessors and their supporting devices. In particular, introduction to microprocessors and their architecture, addressing modes, data movement instructions, arithmetic and logic operations, program control instructions, using assembly language in C, memory interface, basic I/O interface, and interrupts.

**Prerequisites**

INEL 4205 (Logic Circuits) and INEL 4201 (Electronics 1).  
Proficiency with C/C++, and Windows

**Lectures**

Mondays to Fridays 12:50-2:45, Location: S-113

**Course Credits**

3 credits
Course Website

The course will have a website holding many useful resources to help you throughout the course. Some important information will be posted in the course page. It is important that you check the course website frequently and at least once before each lecture day. We try to make an effort to keep the website updated and working; please inform me when you detect any problems with the website, if any, immediately.

URL: http://www.ece.uprm.edu/~ahchinaei/courses/2011jun/inel4206/index.html

Email

Email will be an essential means of communication between students and course staff during the term. Important classroom items are communicated via email. Every student is expected to have an email account on upr.edu or uprm.edu machines.

Assignment 1: Please send me your email address today (not later than June 16, 2011) with the following information:

   Email subject: INEL4206; A1; your name; your student ID; your telephone number
   Email body: I confirm that I understand the INEL4206 course syllabus (rules and regulations).

   * Make sure to state “INEL4206” as part of your email subject in all your emails to me.
   * Do not send your emails in html format; only use text-only emails (exclude signature files too.)
   * You could send PDF attachments as well; only PDF (convert other formats to PDF.)
   * You are assumed to check your email at least once every 24 hours in weekdays.

Textbook & References

   The Intel Microprocessors (8th Edition) by Barry B. Brey
   Available in general library: QA76.8.I2674 B76 2000 C.1

Office Hours

The professor holds weekly office hours (schedule is listed above in Page 1). This is an excellent opportunity to go over the material discussed in class on a one to one basis and at an individual pace. Unfortunately, some students—who can greatly benefit from this opportunity—seldom go to the office hours before their doubts have accumulated to the point where it becomes very hard to keep up with the course.

In general, near the end of the semester, professors get some students complaints about the difficulty of some concepts and their inability to keep up with the course. Such complaints seldom come from students who have frequently attended office hours.

Hence, if you do not understand a concept discussed in class, please use this important resource—and see the professor immediately.
Self Studies

This course requires a significant amount of self studies. In particular, you will be required to read some sections of the book and/or some slides on your own. NOTE that the self-study materials are as equally important as other materials both in assignments and also in all the exams.

Course Evaluation

Your grade will be based on the scores that you obtain in class assignments, partial exams, and a final exam. The weights assigned to each of these categories are as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial exams</td>
<td>45 %</td>
</tr>
<tr>
<td>Final</td>
<td>25 %</td>
</tr>
<tr>
<td>Assignments</td>
<td>Up to 40%</td>
</tr>
<tr>
<td>Total</td>
<td>Up to 110%</td>
</tr>
<tr>
<td>Absent or being 5 minutes late in each lecture</td>
<td>- 3%</td>
</tr>
</tbody>
</table>

Your total score will be calculated as a weighted average of your average scores in each category.

** Each partial exam will carry the same weight within its corresponding category.

** There are many assignments and each may have a different mark. Furthermore, assignments will be graded <on a random basis> and will not return to students. Individual marks in each assignment will not be announced; instead, its total will be added to your total score automatically.

*** NOTE: In order to pass the course, you must meet all of the 3 requirements:
1. You must achieve at least 50% of partial exams score
2. You must achieve at least 50% of the final exam
3. Your total grade (partial exams, final exam, and assignments) must be at least 70%

** Your final grade will be determined by a standard curve as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(90,∞)</td>
</tr>
<tr>
<td>B</td>
<td>(80,90)</td>
</tr>
<tr>
<td>C</td>
<td>(70,80)</td>
</tr>
<tr>
<td>D or F</td>
<td>(0,70)</td>
</tr>
</tbody>
</table>

Students are expected to provide the best possible solution to assignments and partial and final exam questions in order to get full credit in each component. We will not only evaluate correctness; we will evaluate quality as well. Students will have three (3) working days after
their graded work is returned to them to make any claims about incorrect grading of the exams. No further claims will be considered after this time.

Class Attendance
Class attendance is very important. As stated in table above, for every absence or 5-minute-or-more latency, students will lose 3% of their total grade. This is huge. If you will have to be absent or late in a lecture, you will need to have a written (email) consent form the Instructor.

Final Exam
A comprehensive final exam will be administered at the time and date determined by the UPRM Registrar (It is probably on July 20, 2011). The exam carries a weight of 25% towards your final score. The registrar usually announces the date for the exam several weeks in advance.

Partial Exams
We will have three up-to-70-minute partial exams on the following dates and times:
- June 20 at 12:50 PM (Partial Exam 1 in room S-113)
- June 27 at 12:50 PM (Partial Exam 2 in room S-113)
- July 11 at 12:50 PM (Partial Exam 3 in room S-113)

- Each exam will cover materials up to and including the material covered before the date of the exam. However, emphasis will be placed on the material discussed but not tested by previous exams.
- You are responsible for planning ahead of time. Having other exams the same day is no excuse for changing the dates or writing an alternative exam.
- Attending partial exams is a requirement of this course. If you miss an exam, you will get 0 for that exam. Missing two exams would be reason enough to fail the course. (Certain exceptions may be made only for emergency cases.)
- Students must work individually on all exams (and assignments). You will find more on this requirement in the Academic Integrity Section of this document (below).

Changes to this Reference
These “rules of the Game” may suffer some informational minor changes during the course of the semester. However, major changes will require a special procedure in order to get approved. The final decision will be made—at the instructor discretion—within votes, but all students will be notified at least 24 working hours in advance about such an impending decision via email so as to give everyone an opportunity to attend and vote. Major changes may only be approved with the written consent of the professor and at least 90% of the students who vote.

Students with Disabilities
If you believe that you are at a disadvantage against other students due to a physical or mental difficulty, please contact the professor individually and immediately so that some reasonable accommodation can be made to attempt to circumvent or ameliorate the difficulty. It is not only
our desire and duty but it is also your right as established by the 1990 Americans with Disabilities Act. Learn about your rights and demand them.

**Academic Integrity**

- The usual university policies on academic honesty, fair use of computing facilities, etc., apply by default.

- Each student is expected to work individually on all projects, exams and laboratory assignments. You may not share your answers to the laboratory assignments. You may not use code from another student, or code that you find on the Internet or any similar resources. You may not share your code with another student or group. Failure to comply with these requirements will result in a grade of F in the course for the all student(s) breaking these rules. Unauthorized group efforts will be considered academic dishonesty and the students involved will receive an F in the course. You should read Article 10 of the “Reglamento General de Estudiantes de la Universidad de Puerto Rico” to learn more about the possible sanctions that you might experience if caught in an act of academic dishonesty.

- Furthermore, students must attend **on time** for all classes and exams; and, phones **must be turned off** during the lectures. If you need to have your phone on in a particular lecture due to expecting an important call, please send me an email in advance for that particular day; and, after having my consent for that particular day, please have your phone on vibration mode. During lectures, students are allowed to use their laptops only towards the materials being taught.