ECE122 Introduction to Programming for ECE
Syllabus
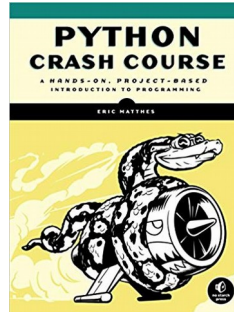
Instructor: Prof. Eric Polizzi
Office: Marcus 201C
Web: http://www.ecs.umass.edu/~polizzi

Day and Time: Lecture: M-W-F 11:15am-12:05am ELAB-II 119
                 Discussions/Labs: Tuesday/Thursday 10-11:15; 1-2:15 Marston Hall 220

Textbook (some suggestions):
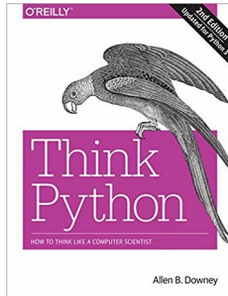
http://greenteapress.com/wp/think-python-2e/   (clear tutorial, basic level)   (college level, CS focus)

Huge numbers of resources on-line: main website is ***www.python.org***

Outline of the Course

This course represents a comprehensive introduction to computer programming with applications to various areas in sciences and electrical and computer engineering. This course introduces the basic syntax of the Python programming language, the object oriented programming paradigm, and the basic of data structures and algorithms.

Course Goals

At the end of this course, you should have learned:

- How to program (using a lot of programming practice)

- Python syntax and fundamentals

- How to solve engineering/scientific problems with programming

- Basic data structures and algorithms

- Object oriented programming techniques

Class Meetings

There are two types of class meetings held for this course:

> •Lectures will be held three times a week by Professor Polizzi. The main goal of the lectures is to present and discuss the main content that is covered in this course.
> •Discussion/Lab activities are organized weekly by Professor Polizzi and supervised by the TAs. The goal of the discussion/lab sessions is to reemphasize the topics covered in the lecture and illustrate the concepts using specific code examples. Students will work on graded activities following a spreadsheet provided at the beginning of each session and that must be returned to the TA at the end of the session. You are expected to have studied the topics covered in lecture and to prepare questions that might have arisen.

> •Projects will be presented and discussed in class. There will also be Weekly quizzes

These components of the course are designed to provide ample opportunity for you to clarify reading assignments, ask questions, and practice your skills. You are encouraged to seek any additional help you need during office hours.

Grading

Your final grade will be derived from your performance in two areas:

> •Projects are somehow larger coding assignments that require the development of solutions to practical problems.
> •Exams consist of on mid-term exam during the semester and one final exam. The exams are closed-book, closed-notes and evaluate how well you retained and understood the course content as well as how well you can apply the course concepts to new problems. **There will be no practice exam**. For each exam, an in-class review session will be held to provide time for resolving issues regarding the content and procedure of the exam.

Homework and projects are assigned according to the schedule posted on the course website. Solutions to project assignments must be submitted on Moodle (using a single file e.g. zip file). Midterm is held according to the schedule on the course Moodle website. The final exam is scheduled by the university.

The final grade will be norm-referenced (i.e., **graded "on a curve"**) with the following weights:

> •Quizzes: 15%
> •Lab Activities: 15%
> •Projects: 25%
> •Mid-term Exam: 20%
> •Final Exam : 25%

You are encouraged to track your scores on Moodle to ensure that you have received the appropriate credit for each of your assignments and exams. No "make-up" assignments will be given (with exception to the cases stated in the examination policy below).

Some Course Policies

Class start at 11:15am. Late arrival is distracting and inconsiderate.

Exams will be based heavily on class notes, projects and discussions. Examinations assume familiarity with all lectures, projects and lab activities. You are expected to attend all classes and are responsible for knowing the material and assignments from every class.

Project Assignments are due as posted on the course Moodle web page. **Late submissions will never be accepted**. Scheduling conflicts regarding exams should be reported to the instructor **immediately**. In case of a medical emergency, make-up exams will be given only if you provide a valid written excuse (as defined in Undergraduate Rights and Responsibilities) and notify me prior to the missed exam. Other missed exams will be considered failures. If advanced notice is possible and not given, the instructor may refuse the request.

Due to the very large class size technical email should be sent to TAs, email-based requests for project assignment will be limited to a maximum of three per assignment per student/team. If you need further help, we highly encourage you to make use of office hours. If you are having difficulties with any of the material (or basic background), come to office hours. Do so before you fall behind.

Short general questions may be posted on piazza for all the students to see. Other students, TAs or instructor will provide a response.

Consultation with fellow students is encouraged. However, directly copying another student's work (past or present) defeats the purpose of the assignments and exams and is an honor code violation. Unless otherwise noted, you are expected to complete all assignment individually (or by team of two for lab activities). Violations will result in serious penalties including course failure and possible disciplinary action. If in doubt, please consult the instructor or the official UMass guidelines regarding academic honesty.

Missing quizzes or missing lab activities
There will be **no make-up**. You are allowed to miss 2 quizzes or 2 assignment without the need to provide any excuses, you will get a 0 grade but the two lowest grades will be dropped at the end of the semester. If you miss a third time, however, you need to provide valid excuses (doctor notes) for at least two of the dates that you have missed

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Missing projects
Project extension beyond the deadline is not allowed (no exception). If you have a valid excuse (doctor notes), you need to upload it on Moodle before submission.
Warning: you have more than 10 days for completing projects that must be started right away. If you have a valid excuse such as you have been sick the last three days before submission (with doctor note), you are still expected to have worked 7 days (~70% of project completion) and your unfinished project must then be submitted on-time.
Warning: Excuses that are **not-valid**
  Excuse 1: The server was down – *not likely*
  Excuse 2: I "accidentally" uploaded the wrong files – *too bad, you need check programs immediately before submission*
  Excuse 3: My network connection went down – *make sure assignment is uploaded early (you can keep uploading new versions until deadline)*
  Excuse 4: I "accidentally" erased all my Files- *could happen, create extra copies (cloud storage)*
  Excuse 5: I was stuck on a deserted island-….Is that you, Tom Hanks?