Department of Computer Science
University of Texas at Austin

CS 303E - Elements of Computers and Programming (Fall 2014)
Section: 51630, MWF 11:00 AM - 12:00 PM, GDC 2.216
Section: 51635, MWF 2:00 PM - 3:00 PM, GDC 2.216

Instructor: Dr. Shyamal Mitra
Office Hours: MWF 4:00 PM - 5:00 PM
Location: GDC 6.202 or GDC 6.320
E-mail: mitra@cs.utexas.edu

Student Assistants

Name	E-mail Address	Role
Ghufran Baig	ghufran@cs.utexas.edu	TA
Jian He	jianhe@cs.utexas.edu	TA
Siddharth Kumar	siddkumar95@gmail.com	Proctor
Jingshi Sun	hanzi@utexas.edu	TA
Ye Zhang	yezhang1989@gmail.com	TA

Office Hours

Day	Time	Location	Assistants
Mon	12 PM - 2 PM	GDC 2.902	Jingshi & Ye
Tue	3 PM - 5 PM	GDC 2.902	Jian & Siddharth
Wed	3 PM - 5 PM	GDC 2.902	Ghufran & Ye
Thurs	3 PM - 5 PM	GDC 2.902	Jian & Siddharth
Fri	3 PM - 5 PM	GDC 2.902	Ghufran & Jingshi

Required Text: Introduction to Programming using Python
Author: Y. Daniel Liang
Publisher: Pearson
ISBN: 978-0-13-274718-9
Supplementary Material: iClicker

Scope of the Course

Computing is an integral part of all natural sciences and engineering disciplines. All other disciplines require some familiarity with computers. This course is designed to teach the fundamentals of computing and programming to students who wish to minor in Computer Science. In this course we will cover basic computer architecture and software components. We will learn to program in a high level language (Python). We will learn problem solving techniques for numerical and scientific problems. We will study the syntax and special features of Python, develop our own algorithms, and translate them to computer code. No prior programming experience is required but familiarity with personal computers will help significantly.

We will be following the book quite closely. Supplemental notes will be available on the web. This course will be a tutorial introduction to programming. Unlike the traditional lecture format, our classes will be a venue for solving problems, writing programs, and exchanging ideas. **Your attendance to the classes is mandatory.** If you are not there for any lecture you need to send me an e-mail (mitra@cs.utexas.edu) explaining why.

iClicker

- Purchase an iClicker from the University Co-op or the iClicker web site.
- Register your iClicker. You must re-register your iClicker even if you already registered in a previous semester.
- You must register your iClicker by providing the following information:
    - your first name
    - your last name
    - your UT EID (student ID)
    - your iClicker's serial number under the bar code on the back of the device
- Make sure you bring your working, registered iClicker to every lecture.

Assignments

You may choose to use your own computer to work on these assignments. If you work on your home computer, you will have to download and install Python 3 (www.python.org) on your home machine. There is a graphical development environment (IDLE) that comes with Python that you can also install. However, we prefer that you write your programs in a simple text editor (like Notepad or TextEdit) and run your programs on the command line.

The only way to learn programming is to program. Doing the programming assignments is crucial to performing well in class. I strongly recommend that you write programs over and above what is assigned to you. Assignments will be given almost every week. Each assignment will have a clearly stated due date and time. Assignments start out being easy but get harder over the semester. If you are having considerable difficulty with Assignments 2 and/or 3, please see me immediately.

The assignments will require a substantial time commitment over several days (an average of 8 hours per week should be expected). Be sure to budget sufficient time to complete assignments before the deadline.

Turn in your assignments on time. This permits grading to start promptly after the submission deadline so that assignments maybe returned promptly. If you do not finish an assignment by the deadline you

have a maximum of two days to turn your assignment in. However, there is a penalty of 10 points (out of a 100 points) per day. Your assignment is one day late until the midnight of the day after it is due, two days late from then until midnight of the second day. **You must let the student assistants know if you submit your assignment late.** If you still have not finished your assignment after two days, see me and discuss your particular situation. We may still accept your assignment (with a late penalty) if you have a compelling case.

Specific grading criteria vary on each assignment. However, in general, programs that do not run correctly on the CS Lab configuration will receive no more than 80% of the possible points. Other point deductions are given for such things as: incorrect results, missing features, bad solution logic, etc. No matter what configuration of software that you have on your home computer, the assignment that is turned in must run successfully on the CS Lab configuration in order to be graded. Here is the general grading critera for programming assignments.

Always make a backup copy of the Python 3 source code (i.e. the .py file) on a removable secondary storage device (e.g. a flash drive). This will be necessary in cases where your program gets lost, is corrupted, or if there is some dispute over what was turned in when.

For assigned programs, the source code (.py file) must be turned in. The source code must be a text file that can be run through a Python 3 interpreter. Word processing files (those created with Microsoft Word, for example, and ending with .doc extension) will not be accepted.

If you want us to debug your program, come to us during our office hours with your laptop and we will go through the program with you. Do **NOT** just e-mail the program to us for debugging. We will not respond to e-mails that have full length programs that have to be debugged.

Grade Dispute: You have one week from the date the assignment grade is posted to dispute your grade. The student assistants will be grading the assignments. Send the student assistants an e-mail and see if you can resolve your differences. If you cannot resolve your differences, you may send me an e-mail explaining the situation. ***We will not entertain any grade disputes after one week.***

Assignment Identification: All assignments must be submitted with the proper header, containing your name (as registered), your unique section number, and the assignment number at the top of the assignment. The format for the header will be specified in the assignment. That specification will over-ride any other header specification.

In addition, because assignments are submitted as files to Canvas, they must have the correct file name, which will be specified in the assignment handout. The file name is case sensitive. You must also ensure that you turn in the assignment to the correct unique section folder - that is, the section you are currently registered in. Lost assignments are typically caused by turning in an incorrect file name and/or turning a file into the wrong section folder. Assignments, which omit the header or are incorrect in any one or more of these requirements, will have the grade reduced by 5% of the maximum grade.

Tutorial Exercises

There will be tutorial exercises on Live Lab that will be assigned. Instructions on how to access Live Lab will be posted on the class website. We will also be working on the exercises posted on *Coding Bat*. Please create an account on Coding Bat , when we tell you to. Use your first name and middle name as the first name and your last name with any suffix for the last name on the registration form. Once your

account is created, share your account with UTCS303ESP15@yahoo.com.

Quizzes

We will be having quizzes regularly throughout the semester. The quizzes will be administered at the beginning of class using iClickers. The quizzes will start after the end of the add / drop period, i.e. after 23 Jan 2015. There are no make-up quizzes. We will drop your lowest two quiz grades. **If you miss more than 6 quizzes you will forfeit all of the quiz points.**

Tests

There will be three tests and no final examination. The three tests will be during class periods.

- **Test 1:** Mon, 23 Feb 2015
- **Test 2:** Mon, 06 Apr 2015
- **Test 3:** Fri, 08 May 2015

Make-up tests will be given only for the following reasons. In all cases you must provide some form of documentation.

- Ill health
- Family emergency
- Official UT conflict

Having three tests on the same day is *not* official UT conflict! For each test you may bring a non-programmable calculator.

Questions concerning test grades should be given to me in writing along with your test within the next class day that the test is handed back. We will not entertain any disputes after that time.

Grades

Your performance in this class will be evaluated using your scores for quizzes, tutorial exercises, programming assignments, and three tests. The weights of each of these components are listed below. *There are no extra credit projects or assignments to improve your grade*.

- Quizzes: 10%
- Tutorial Exercises: 15%
- Programming Assignments: 30%
- Three Tests (15% each): 45%

All scores will be entered on Canvas. Check your scores regularly on Canvas to make sure that we have entered them correctly. Remember the average score as shown on Canvas is **not correct**. It is not weighted with weights as shown above.

Study Groups

Please organize yourselves into study groups of ~5 students who will meet once a week to discuss the course. Typically, you will review the lectures, do the reading, and attempt the homework independently

before your weekly meeting with your study group. Studying for tests together is permitted and encouraged. You may discuss solutions to problems in simple English but *cannot exchange code* for any assignment. If you are unsure about how to work together with your friend in a legal, helpful manner, do come and talk with us. Remember, it is always ok to "work together" with your professor or TA!

We will be using Piazza for general discussion of class related questions rather than the discussion board on Canvas. Please do not post solutions to any problems on Piazza.

Academic Misconduct Policy

While you are free to discuss the course material with your classmates and are encouraged to form study groups for the exams, collaboration on homework or programming assignment is **not** permitted unless that assignment has been designated as a pair programming assignment.

Helping a friend understand the intent of a homework or programming assignment specification is permitted. Students who are not pair programmers and who work together too closely (e.g. design their solution together) should be aware that this is a form of cheating called COLLUSION and is subject to academic penalties. Penalties for academic misconduct include a failing grade in this course.

The homework, programs, and exams must be the work of students turning them in. University policy (see Dean of Students' policies on academic integrity) will be followed strictly. We will be running a sophisticated program on all submitted assignments to detect plagiarism. If we do detect any cases of academic dishonesty, we will assign a grade of F to all students involved and refer the cases to the Dean of Students.

Acts that exceed the bounds defined by the approved collaboration practices will be considered cheating. Such acts include:

- Copying solutions, code, or programs from someone else or giving someone else your solutions, code, or programs
- Participation in a discussion group that develops a solution that everyone copies
- Posting your code to homework problems on Piazza or Facebook.
- Copying code from the internet (e.g. from Piazza or Facebook or other internet sites)
- Employing someone to write the solutions for you on homework assignment problems.

We urge everyone in the class to take appropriate measures for protecting one's work. You should protect your files, homework solution sheets, etc. as deemed reasonable.

Your Responsibilities in This Class

- Your performance in this class will be determined by you! It will require a strong dedication to learning the material and may require a substantial time commitment to complete the programming assignments.
- You are expected to show up on time for class and stay for the whole lecture.
- You are required to have your cell phones off and out of sight at all times during the lecture. You may not make or receive calls on your cell phone or send or receive text messages during lectures.
- You may **not** use a laptop in class.
- You are responsible for all material posted to the web site and sent as email. Ignorance of such material is no excuse.

- You are responsible for all material presented in the lectures. Note that lectures will include some material that is not available elsewhere.
- You are responsible for turning in your own work on all assignments. **Unauthorized** collusion is not allowed and constitutes a violation of the university's policies on academic integrity. See above guidelines for more information on what is or is not allowed.
- You are responsible for protecting your work from being copied by others.
- Your conduct in class should be conducive towards a positive learning environment for your class mates as well as your self.

Course Time Table

- 21 Jan 2015: First Day of Class
- 23 Jan 2015: Last day of official add / drop
- 04 Feb 2015: 12^{th} class day, official enrollment count is taken
- 06 Apr 2015: Last day a student may change registration to or from pass/fail basis.
- 08 May 2015: Classes end

General Policies

If you are absent from class or examination for the observance of a religious holy day you may turn in your assignment or take the examination on an alternate date provided you have given me written notice fourteen days prior to the class absence. For religious holy days that fall within the first two weeks of class notice must be given on the first class day.

Students with disabilities who need special accommodations should contact the Services for Students with Disabilities (SSD) Office (471-6259 or 471-4641 TTY).