CSE 1310 – Section 1
Introduction to Computers and Programming

Class Schedule:
   Mo. & Wed., 4:00-5:20pm, ERB 129
Office Hours:
   Mo. & Wed., 1:30-3:30pm or by appointment
Course Website:
   http://ranger.uta.edu/~gianluca/teaching/CSE1310_F14

Teaching Assistant:
   Mostafa Parchami (mostafa.parchami@gmail.com)
   Office Hours: Tu-Th: 11am-noon, ERB413

Faculty:
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Office:
   Computer Science and Engineering Dept.
   University of Texas at Arlington
   ERB 649, 500 UTA Blvd.
   Arlington, TX 76019-0015

Course Overview:

   This is an introductory course to computers, to algorithm-based problem solving, and to programming. We will cover many core topics such as computer architecture, data representation, problem solving and algorithm development, control structures, functions, lists and tuples, file accessing, recursion, data structures, and introduction to classes.

   For this course, we have chosen Python as the introductory language for beginning programming students. Python is simple to learn and allows the student to focus more on problem solving and less on language issues. Python is also practical: it can be used in real applications such as Web access, database manipulation, game programming, etc.

   Students taking this course will learn more about problem solving and will have an extensive programming experience that will enable them to solve a wide range of practical problems in many fields of study.

Course Prerequisites:

   - MATH 1302 (or concurrently).

Course Goals:

   CSE 1310 is designed to:
● Introduce the student to fundamentals of computers and data representation
● Explore problem solving in computing by using Python as a vehicle.
● Give students a practical and complete foundation of programming

Course Outcomes:

   Upon successful completion of the course, each student will:
● Gain a practical foundation in programming.
● Be introduced to computational thinking, i.e., problem solving with computational tools (Python).
● Independently produce algorithms for solving concrete needs.
● Read, understand, and produce Python code to solve classical problems in programming.

Course topics and tentative calendar:
1. Introduction to computers and data representation
2. Beginnings (variables, operators, code structure, etc)
3. Control statements (if, for, while)
4. Strings
5. Functions
6. Lists and tuples
7. Dictionaries and sets
8. Files I/O
9. Recursion and more on data structures

(please note that *these course topics and calendar are* preliminary and might undergo *changes*)

		Teaching topic
August	25	Intro
	27	*no class*
September	1	**Labour Day**
	3	Intro
	8	Beginnings
	10	Beginnings
	15	**Test 1**
	17	Control
	22	Control
	24	Control
	29	Strings
October	1	Strings
	6	Strings + Prepare to test
	8	**Test 2**
	13	Functions
	15	Functions
	20	Lists
	22	Lists and Tuples
	27	Functions + Prepare to Test
	29	**Test 3**
November	3	Dictionaries and Sets
	5	Dictionaries and Sets
	10	Dictionaries and Sets
	12	**Test 4**
	17	Files
	19	Files
	24	Recursion
	26	Recursion
December	1	Prepare for final exam
	3	Prepare for final exam
	10	**Final Exam Day (2-4:30 pm)**

Course textbook:
W. Punch and R. Enbody, *The Practice of Computing using Python*, 2010, 1st edition
ISBN: 9780136110675

Office Hours

The instructor is available before or after class and at the office hours scheduled above.

Course Assignments and Grading Policies

<u>Class attendance and participation</u>

In CSE 1310, the students will be introduced to computers and programming. I like to interact with the class, by promoting an active learning style. For this reason, I strongly encourage the students to attend each class and to actively contribute with in-class discussions, when necessary. Students must arrive to class on time.

As detailed later in this syllabus, I will also assign **non-graded homeworks during the year to encourage constant participation in class and during office hours.** Because of this, I encourage students to study the topics covered in class and to continuously practice their programming skills outside of class using the assigned homeworks as well the exercises available from the textbook.

It is my goal to have this year "lab sessions" where programming non-graded homeworks will be assigned and solved in class. The organization (location, time, etc.) of these sessions will be decided in the first days of class.

<u>Course Assignments and policies</u>

Students will be graded based on the results they obtained during the semester by taking around four in-class midterms (tests) and a final exam (see next section for the Grading policies).

Tests and final exams will mostly consist of theoretical and practical (coding) in-class questions. A tentative schedule is reported above. Final dates for the tests and the final exam will be announced in class. Homeworks will be assigned at the end of some classes as a preparation to the tests. However, they will not be graded and are meant to be a practice tool for the tests.

This year I will consider the possibility of allowing selected individuals to **perform a final project in substitution of the final exam** (modalities and details will follow during the year).

There will be no make-up homeworks or exams. If you have to miss a quiz for a medical reason or other extreme circumstances, you must inform me in advance; it will count as your "lowest one quiz score to be dropped." If you miss more than 1 quiz, you will receive a 0 for each missed quiz.

No special make-up work will be accepted after the end of the semester. In the event of a documented major medical problem, a grade of Incomplete will be given pending the submission of complete work. However, make-up work "to improve one's grade" will not be accepted.

Grading policy

Tentatively, course grades will based on the following:

Assignments	% of final grade	Percent Grade	
Test 1	15 %	90% - 100%	A
Tests 2-4 (total)	60 %	80% - 89.9%	B
Final Exam	25 %	70% - 79.9%	C
		60% - 69.9%	D
		< 60%	F

These grades will not be dropped under any circumstances. At my discretion, and in case of proven impossibility to attend a test session, I might not consider the resulting zero grade for that non-taken test.

I might schedule some assignment during the final review week. I will inform the students about

this ahead of time.

How to Prepare for Tests the Final Exam

The most effective strategy is **active recall**. Reading the book, notes and examples alone will only give you a false sense of familiarity. Instead, you must actively digest the class material, and practice your recall of it in question and answer form. Close the book, the notes, your computer and try to solve the exercise on a piece of paper. Finish, then take the computer, type down the code and see which errors you made!

After each class meeting, review the class notes and the examples I provide, and especially points that I spend time elaborating upon. For each of these "main points" (there are probably about 4-6 of these per class meeting) you can try to write out a challenging question about the point, and prepare the answer to that.

By actively preparing questions that you know you can answer, you will be surprised how many of those show up on the quiz/exam.

Course/University Policies and Services

Attendance and Participation

At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I will not take attendance.

However, as stated above, attendance is strongly suggested at the first day and each class session. Students are encouraged to arrive on time and attend the full class period.

Participants who need to miss class for religious observance or for a pressing personal or family matter, should contact the instructor prior to missing class or as soon as possible. Participants should plan on getting the information about the missed class from a peer.

I strongly encourage in-class collegial behaviour as well as between the project group members. Non-collegial behavior includes working on other tasks during class time (text messaging, e-mailing, Web surfing, doing crosswords/Sudoku, having private conversations, etc.). Another example of non-collegial behavior could be the creation of unconstructive conflicts inside a group.

Finally, I positively value the students' active participation to in-class discussions. This is extremely important because gives the instructor (and the students too!) a feedback on the audience understanding.

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

Americans with Disabilities Act:

The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and

policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX:
The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

Academic Integrity:
Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Electronic Communication:
UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Student Feedback Survey:
At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week:
A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new

concepts as appropriate.

* The policy on final review week might change for this class. Students will be informed by email ahead of time.

Emergency Exit Procedures:

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services:

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources