

INSY 3300: Introduction to Programming (Python) Spring 2016

Instructor: Gene Moo Lee

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Office Hours: TR 3:30 – 4:30 pm / by appointment

Section Information: INSY 3300 / Section 002 / Class Number 21661

Time and Place of Class Meetings: TR 2:00 – 3:20 pm, COBA 153

Catalog Description: An introductory programming course that teaches students how to solve business problems using the scripting language, Python. Students will be exposed to object-oriented programming concepts, file handling, database access, and graphical user interfaces.

Prerequisite: INSY 2303 or other equivalent Computer Literacy classes

Learning Objectives: Python is a simple yet powerful scripting language that has been growing in popularity. It has been used widely for web development, game programming, general application development, and, more recently, for data analytics. The aim of this course is to acquaint students with the key aspects of the Python language. Upon successful completion of the course:

- a. Students will apply data structures and programming constructs in the Python language such as lists, tuples, dictionaries, classes, selection (e.g., `if..else`), and iteration (e.g., `while` and `for` loops) to solve business problems.
- b. Students will access data from files and databases; and write basic SQL (Structured Query Language) queries.
- c. Students will build basic GUI (graphical user interfaces) in Python.
- d. Students will write rudimentary web crawlers in Python.

Required Textbooks and Other Course Materials:

- **Textbook:** *Introduction to Computing Using Python: An Application Development Focus, Second Edition* by Ljubomir Perkovic, John Wiley & Sons, Inc., 2015, ISBN: 978-1-118-89094-3 (e-Text ISBN: 978-1-118-89105-6)
- **Software:** Python with IDE (preferably Anaconda from Continuum Analytics; it can be downloaded at <https://www.continuum.io/downloads>)

Description of major assignments and examinations:

The distribution of points will be as follows:

Exam 1	20%
Exam 2	20%
Exam 3	20%
Finals (Comprehensive)	25%
Homeworks (5 sets)	15% (3% for each set)

Grading: The following criteria will be used to assess your grade (**no rounding**):

A ($\geq 90\%$), B ($\geq 80\%$), C ($\geq 70\%$), D ($\geq 60\%$), F ($< 60\%$)

Attendance: 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 consider attendance mandatory for all lectures. If you miss a class, you are responsible for the materials covered. **Pop quizzes** may be given during the semester. Quiz scores may be used towards Extra Credit upon the instructor's discretion. If you miss a pop quiz, there will be no makeup quizzes (no exceptions).

Exams: You are responsible for everything that is covered in the classroom, including additional materials that the instructor may discuss in class. There are **no make-up exams**. Under extenuating circumstances (e.g., medical emergency, family emergency, work-related travel, etc.), the average score of other exams will replace the missed exam score. You can only use this excuse for one exam. The final exam will be comprehensive covering all the contents, where regular exams will cover partial contents (as described in Course Schedule).

Homeworks: You will have 5 sets of homework exercises. You will have about a week to complete the exercises. Homework must be turned in electronically (via BlackBoard) by the due date and time specified by the instructor. Late submissions will receive a score of 0 (no exceptions).

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 9 hours per week of their own time in course-related activities, including reading required materials, completing assignments, and preparing for exams/quizzes.

UNIVERSITY and COLLEGE POLICIES

Grade Grievances: Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog:
<http://catalog.uta.edu/academicregulations/grades/#undergraduatetext>

Drop Policy: 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/faol/>).

Disability Accommodations: UT 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)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. 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 disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD)**. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:
The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.
Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

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 does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos. For information regarding Title IX, 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.

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 <http://www.uta.edu/universitycollege/resources/index.php>

You may also find the following information useful:

Library Home Page	http://www.uta.edu/library
Subject Guides.....	http://libguides.uta.edu
Subject Librarians	http://www.uta.edu/library/help/subject-librarians.php
Course Reserves	http://pulse.uta.edu/vwebv/enterCourseReserve.do
Library Tutorials	http://www.uta.edu/library/help/tutorials.php
Connecting from Off- Campus.....	http://libguides.uta.edu/offcampus
Ask A Librarian.....	http://ask.uta.edu

<p>Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911. Non-emergency number 817-272-3381</p>

Tentative Course Schedule

Days	Assignments and Topics	Readings
1/19, 1/21	Introduction / Computational Thinking	Syllabus, Chapter 1
1/26, 1/28	Python Data Types	Chapter 2
2/2, 2/4	Imperative Programming	Chapter 3
2/9	Review	
2/11	Exam 1 (Chapters 1, 2, 3)	
2/23, 2/25	Text Data, Files, and Exceptions	Chapter 4
3/1, 3/3	Execution Control Structures	Chapter 5
3/8, 3/10	Containers and Randomness	Chapter 6
3/15, 3/17	Spring Break (No classes)	
3/22, 3/24	Namespaces; Review	Chapter 7
3/29	Business Week (Guest Speaker: TBD)	
3/31	Exam 2 (Chapters 4, 5, 6, 7)	
4/5, 4/7	Object-Oriented Programming / Graphical User Interfaces	Chapters 8, 9
4/12, 4/14	Graphical User Interfaces / Databases and Data Processing	Chapters 9, 12
4/19, 4/21	Databases and Data Processing / Web and Search	Chapters 12, 11
4/26	Review	
4/28	Exam 3 (Chapters 8, 9, 11, 12)	
5/3	Advanced Topics (recursion, network analysis, etc.)	Will not be in final
5/5	Final Review	
5/10	Final Exam (2 pm ~ 4:30 pm)	Comprehensive

NOTE: As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. Students are responsible to be aware of changes announced in class and/or via Blackboard. – Gene Moo Lee

Kindly check the Academic Calendar for important dates.