



INFORMATION TECHNOLOGY EDUCATION
Programming and Analysis
Course Syllabus

Course Title and Number: Programming Logic, COP2002		Instructor: Elizabeth Drake
Year and Term: Fall 2017	Course Credits: 03	Office Location: N-211
Office Phone: 352.381.3829	Office Hours: See my home page	Class Location: Online or N-116
Meeting Time/Days: Section 0M2: online Section 002: Tues 11:00-12:15, Thur: online		Email Address: elizabeth.drake@sfcollge.edu
Web Page Address: http://home.ite.sfcollge.edu/~elizabeth.drake/		Fax Number: 352.395.4154

Course Description	This course is intended to introduce students to the concepts of computer logic and programming using the Python programming language. Problem solving skills using logical thinking are emphasized. Topics include but are not limited to: a discussion of data representation (binary and hexadecimal, integers, floating point numbers, and character strings), how to develop a program, the basic programming control structures (sequence, selection, and repetition), using functions and modules, testing and debugging, using lists (arrays) and data files, and exception handling. Advanced topics include working with numbers and strings, working with dates and times, and using dictionaries. The following topics will be covered as time permits: an introduction to object-oriented programming and developing a GUI program.
Prerequisites	Math: You will use some math skills and it is <i>strongly recommended</i> that you have taken or are taking concurrently Intermediate Algebra.
Course Objectives Reflecting Expected Student Learning Outcomes	<ul style="list-style-type: none"> • Understand how Python compiles and runs a program • Code, test, and debug programs using basic numeric and string operations • Code, test, and debug programs using if, elif, and else clauses • Code, test, and debug programs using for and while loops • Define and call functions and modules in programs • Distinguish between syntax, runtime, and logic errors • Create and use lists and tuples in programs • Read from and write to various types of files including text, CSV, and binary files • Add exception handling to programs • Use the math and decimal modules in programs to work with numbers • Use built-in Python functions to work with strings

- Create and use date, time, and datetime objects
- Create and use dictionaries (time permitting)
- Understand the basics of object-oriented programming (time permitting)
- Understand the basics of event-driven GUI programming (time permitting)

Grading

Course Requirements:

Students who need reasonable accommodation should contact the instructor or call the Disability Resources Center at 352-395-4400.

Policies on Missed Exams and Late Work:

The lowest of either your Homework or Exam grade is dropped. At the end of the semester the instructor will figure out which grade should be dropped; it will always be the grade that negatively affects your overall grade the most. Once an assignment has been graded for the whole class, the solution is posted. Therefore, late work is not accepted. There will be opportunities for students to make up missed or low homework assignments. Since one grade is dropped, a missed exam will be the dropped exam grade. However, the comprehensive Final Exam is mandatory and cannot be your dropped grade.

Grading Scale and Standards:

Grade Scale	
90 - 100	A
87 - 89.9	B+
80 - 86.9	B
77 - 79.9	C+
70 - 76.9	C
67 - 69.9	D+
60 - 66.9	D
< 60	F

Grade Calculation	
Homework	50%
3 Exams	30%
Final Exam	20%
Total	100%

Important Information

All sections of this course will use Canvas. This is where you will go to get assignments, check due dates, take your exams, upload work, communicate with your instructor and classmates, and participate in

discussions. You must log on to Canvas at least twice a week and check for any new information and/or updates.

All of the work for this class will be uploaded to either Canvas, sent via Canvas email message, or uploaded to the ITE server. Since you are uploading work via the Internet, it is important not to wait until the last minute. Computers crash, you may have ISP problems, etc. These issues will *not* be accepted as excuses for late work. It is your responsibility to make sure your work is uploaded on time.

Note: The due date and the time each assignment is due is clearly posted on the Canvas Calendar and in the Canvas Drop Box. You are expected to check these things and get your work in on time. And **remember: the due date is the last day the work can be submitted; it is not the only day!** Early work is always accepted. ☺

Note: There may be work assigned in this course that is not collected or graded. The purpose of this work is to ensure that you learn the material so you will be prepared for the exams and also ready to do the graded homework. You are expected to take responsibility for learning the material and demonstrate that knowledge by your performance on exams and graded assignments.

There will be 3 exams throughout the semester and a Final Exam. All exams will be announced in advance. There are no makeup exams for any reason. If you miss one of these exams, it may count as your dropped grade. The Final Exam cannot be dropped.

Note: You have one week from the time a homework or exam grade is posted to contest your grade. You must make your case for points you think you deserve in writing through Canvas email. After that time, your grade will stand.

Assignments must be organized and submitted following the course guidelines and in the specified format. Methods other than those specified are not acceptable. Files **must** be named as specified in each assignment. When the instructor grades your work, he/she must be able to find it easily. This means the file must be uploaded to the exact area specified in each assignment and must be named as specified in each assignment.

All work must be completed using the programs and versions that are designated for this course. You will need Python 3 and IDLE. These are free and work on both Windows and Macs. Appendix A in the textbook details how to download and install this software.

	<p>If you are working on assignments at home, it is your responsibility to maintain your computer system. Requirements cannot be waived due to problems with your hardware, software, or Internet connection. Campus labs can also be used to complete your work.</p>																												
<p>Text(s)</p>	<p>Text(s), Title(s), Author(s) and Edition(s): <i>Murach's Python Programming</i> by Michael Urban and Joel Murach, Mike Murach & Associates, Inc., 2016. ISBN: 978-1-890774-97-4</p>																												
<p>Required Course Materials</p>	<p>Software requirements:</p> <p>All materials are available for free from the ITE department, online, or posted on Canvas. You can print any assignment, activity or reference if you wish. Python and IDLE are already on all the computers in our labs.</p>																												
<p>Term Calendar <i>(Tentative: The instructor reserves the right to alter dates of presentations and exams/projects.)</i></p>	<p>Topics to be Covered and Corresponding Chapters in the text:</p> <table border="1" data-bbox="516 814 1479 1927"> <tr> <td>Module 1</td> <td>An introduction to Python programming text: Chapter 1</td> </tr> <tr> <td>Module 2</td> <td>How to write your first programs text: Chapter 2</td> </tr> <tr> <td>Module 3</td> <td>How to code control statements text: Chapter 3</td> </tr> <tr> <td>Module 4</td> <td>How to define and use functions and modules text: Chapter 4</td> </tr> <tr> <td colspan="2">Exam 1: on Chapters 1-3</td> </tr> <tr> <td>Module 5</td> <td>How to debug and test a program text: Chapter 5</td> </tr> <tr> <td>Module 6</td> <td>How to work with lists and tuples text: Chapter 6</td> </tr> <tr> <td>Module 7</td> <td>How to work with file input/output text: Chapter 7</td> </tr> <tr> <td>Module 8</td> <td>How to handle exceptions text: Chapter 8</td> </tr> <tr> <td colspan="2">Exam 2: on Chapters 4-7</td> </tr> <tr> <td>Module 9</td> <td>How to work with numbers text: Chapter 9</td> </tr> <tr> <td>Module 10</td> <td>How to work with strings text: Chapter 10</td> </tr> <tr> <td>Module 11</td> <td>How to work with dates and times text: Chapter 11</td> </tr> <tr> <td>Module 12</td> <td>How to work with dictionaries Text: Chapter 12</td> </tr> </table>	Module 1	An introduction to Python programming text: Chapter 1	Module 2	How to write your first programs text: Chapter 2	Module 3	How to code control statements text: Chapter 3	Module 4	How to define and use functions and modules text: Chapter 4	Exam 1: on Chapters 1-3		Module 5	How to debug and test a program text: Chapter 5	Module 6	How to work with lists and tuples text: Chapter 6	Module 7	How to work with file input/output text: Chapter 7	Module 8	How to handle exceptions text: Chapter 8	Exam 2: on Chapters 4-7		Module 9	How to work with numbers text: Chapter 9	Module 10	How to work with strings text: Chapter 10	Module 11	How to work with dates and times text: Chapter 11	Module 12	How to work with dictionaries Text: Chapter 12
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Exam 3: on Chapters 8-12	
Module 13	Time permitting: Introduction to object-oriented programming text: Chapter 14
Module 14	Time permitting: How to build a GUI program text: Chapter 18
Final Exam: on all material covered in the course	



INFORMATION TECHNOLOGY EDUCATION

Policies and Guidelines

Please note that components marked with asterisk (*) require specific language.

Cell Phone Use Policy

Given the disruptive potential posed by cell phones, students are required to keep cell phones off during class lectures. Use of cell phones during lab exercises are permissible, but please consider those around you

***Children in the Classroom**

Children represent a disruptive element for the classroom. They also increase the risk of accidents. For those reasons, children should not be brought to either the classroom or the laboratory.

***Academic Honesty: Plagiarism And Cheating**

Academic honesty is expected, and the instructor reserves the right to respond to cheating, plagiarizing, or other forms of unethical behavior with penalties up to and including removal from the class and/or failure in the course. The instructor reserves the right to make necessary adjustments to the syllabus.

***Academic Ethics and Confidentiality**

It is the responsibility of everyone engaged in the learning experience to respect the rights and feelings of their fellow learners. Information gathered in the classroom and from on-line discussions and exercises is to be considered confidential. At the same time, students must recognize that the instructor and the College cannot guarantee the confidentiality of what the student may choose to disclose. Students must use their own discretion when engaging in classroom discussion.

***Classroom Behavior**

Instructors have the responsibility to set and maintain standards of classroom behavior appropriate to the discipline and method of teaching. Students may not engage in any activity which the instructor deems disruptive or counterproductive to the goals of the class. Instructors have the right to remove offending students from class. Repetition of the offense may result in expulsion from the course. Students are expected to be courteous to others and that includes coming to class on time.

***Student Rights and Responsibilities**

The purpose of this document is to provide students with a general overview of both their rights and responsibilities as members of the Santa Fe College community. For a complete list of students' rights and responsibilities go to:

[:http://www.sfcollege.edu/studentaffairs/index.php?section=policies/student_rights](http://www.sfcollege.edu/studentaffairs/index.php?section=policies/student_rights)

***Americans with Disability Act – Disability Accommodation Statement**

If you are a student with a disability: In compliance with Santa Fe College policy and equal access laws, I am available to discuss appropriate academic accommodations that you may require as a student with a disability. Requests for academic accommodations need to be made during the first week of the semester (except for unusual circumstances) so arrangements can be made. You must be registered with Disabilities Resource Center (DRC) in S-229 for disability verification and determination of reasonable academic accommodations. For more information, see

http://www.sfcollege.edu/student/drc/index.php?section=faculty_resources/rights_responsibilities

***Discrimination/Harassment Policy**

SF prohibits any form of discrimination or sexual harassment among students, faculty and staff. For further information, refer to College Rule 2.8 at

http://dept.sfcollege.edu/rules/content/media/PDF/Rule_2/2_8.pdf