ITP 115: Programming in Python

Units:	2
Semester:	Spring 2025
Section:	Various
Days:	Various
Times:	Various
Location:	Various

Instructors:	Trina Gregory
	Barry Koster
	Emily Millard
	Calvin Nguyen
	Rob Parke
Office:	Listed on Brightspace and Piazza
Office Hours:	Listed on Brightspace and Piazza
Contact Info:	Listed on Brightspace and Piazza

Learning Assistants:	Listed on Piazza
Office Hours:	Listed on Piazza
Contact Info:	Use Piazza

IT Help:	Provided by Viterbi IT
Hours of Service:	8 am – 5 pm; M – F
Walk-in:	DRB 205
Contact Info:	(213) 740–0517
Email:	engrhelp@usc.edu

This is not to be used to help with the course. Use the office hours on Piazza for course help.

Course Description

This course is intended to teach the basics of programming in Python. Python's high-level data structures and clear syntax make it an ideal first language, while many existing libraries make it suitable to tackle almost any programming task. Python offers an interactive environment in which to explore procedural, functional, and object-oriented approaches to problem-solving.

Learning Objectives

- Code Python programs that get input from the user and display information to the user.
- Code Python programs using while loops and for loops to repeat code.
- Demonstrate an understanding of various Python variable types including integers, floats, strings, and Booleans.
- Demonstrate an understanding of the implementation of functions in Python to simplify solutions and promote the concept of code reuse.
- Implement Python programs that read from text files and write to text files.
- Demonstrate an understanding of the use of the list and dictionary data structures in Python.

Prerequisite(s)

None. This course is intended for students who do NOT have prior programming experience.

Course Notes
This course will make use of **Brightspace** (https://brightspace.usc.edu/) for content and assignments. Lecture slides, videos, and any supplemental course content will be posted to Brightspace for use by all students. All assignments will be posted to Brightspace and will be submitted through Brightspace.

This course will also use **Piazza** (https://piazza.com/) for answering questions and posting information. The ITP 115 course on Piazza is used for all current sections of this course, not just your section. This is the preferred way to communicate with instructors and learning assistants (LAs). When posting, make sure to include your name, section, and instructor. You can post publicly or privately.

Technological Proficiency and Hardware/Software Required
Students will need a computer (laptop or desktop) and access to the internet. If you do not have access to a computer, please see below. The software needed for this course is available for free online. All assignments will need this software to be completed (available for Mac and Windows). Download the latest version of **Python 3** at https://www.python.org/downloads/.

You will also need to download and install PyCharm, which is an integrated design environment (IDE) for creating an ITP 115 project and writing code. Download the latest version of **PyCharm CE (Community Edition)** at https://www.jetbrains.com/pycharm/download/.

USC Computing Center Laptop Loaner Program
Information Technology Services provides loaner laptops at the general-use computing center in the Ahmanson Information Commons at Leavey Library. Computing accessories may also be checked out by faculty, staff, and students at the USC Computing Centers. Information about this program can be found at https://itservices.usc.edu/spaces/laptoploaner/.

TAC Loaner Devices Program
The Technology and Applied Computing (TAC) program (previously known as ITP) has a limited number of laptops that are available to borrow. Eligible students can borrow a MacBook or Dell XPS for ITP coursework once their request is approved and their contract is signed via DocuSign. Though the initial loan period is 7 days, they can renew their device and extend the loan period through the weekly check-in process. If all devices have been checked out, then the student will be placed on the waiting list. Students are not able to save work on these laptops. Once they are restarted, all work will be deleted. Use an external USB drive, or a cloud-based service like Google Drive to save your work. Information about the TAC Loaner Laptop Program and the request form can be found at https://tac.usc.edu/current-students/itp-device-check-outs/.

Required Readings
Videos and slide decks are posted on Brightspace. Videos are also available on YouTube at https://www.youtube.com/@uscitp115/playlists.

Use of Outside Python Materials
This course is designed for students with no programming experience. If you have prior programming experience, please take the **ITP 116: Accelerated Programming in Python** course. We want you to learn the fundamentals of programming using Python and proper coding conventions. Thus, you need to use the course materials we created. Getting outside help and using outside resources violate the academic integrity standards of this course.

Use of Artificial Intelligence (AI) Tools like ChatGPT
Since creating, analytical, and critical thinking skills are part of the learning outcomes of this course, all assignments must be prepared by the student working individually. Students may NOT have another person or entity complete any portion of the assignments. We want you to learn the fundamentals of coding to learn crucial programming principles and develop critical thinking skills, which will prepare you for a competitive workplace. Therefore, **using AI tools is NOT allowed in this course**. Using any AI tool is violating academic integrity standards and will be reported to the Office of Academic Integrity.

Description and Assessment of Assignments
The 10 **homework assignments** are due on Mondays at 11:59 pm PT (Pacific Time). Each homework assignment covers the material from the current module and past ones since concepts build upon each other. Once a concept has been covered, you will have at least a week before the homework assignment is due that covers that concept. For example, the homework assignment covering week 1 is due on the Monday of week 3. The exact due dates are listed in the course breakdown table and on Brightspace. The homework assignments are posted on Brightspace, and each one includes instructions, a grading rubric, and information on how to submit. These homework assignments must be submitted on Brightspace. You must code the solutions according to the content taught in this course. Using coding techniques and modules outside the content of this course is not allowed, and any assignment doing so will receive 0 points. Each homework assignment must be completed individually. Do not collaborate with other students. If you need help, please ask for help by posting on Piazza and attending office hours and/or open lab hours. Each homework assignment covers important concepts, and all of them need to be completed to be successful in this course. The homework assignments are proportionally weighted since they vary in points from 20 to 40. No homework assignments will be dropped.

There are nine **in-class lab assignments** (aka labs). Each one should be completed and submitted on the day it is covered in class. Just in case you are unable to attend class, the labs are due on Fridays at 11:59 pm PT (Pacific Time). Labs must be submitted on Brightspace. Each lab is worth 1 point, and you must complete it fully using course concepts to earn the point. Using coding techniques and modules outside the content of this course is not allowed and will receive 0 points. The two lowest scores are dropped, thus you only need to complete seven of them. There is no late policy for labs since late labs are not accepted.

Assignment Late Policy
It is the student's responsibility to submit assignments on or before the due date. The due dates are listed in the syllabus, and posted on Brightspace and Piazza.

Homework assignments submitted after the due date will receive a 10% late penalty for each day. For example, assignments submitted within 24 hours (1 day) late will have 10% of the total points deducted from the graded score, and assignments submitted over one day and up to two days (> 24 hours and <= 48 hours) late will have 20% of the total points deducted from the graded score. After seven days, submissions will not be accepted, and the score for the assignment will be a 0. You may ask for a homework assignment's late policy to be waived for various reasons. This needs to be approved before the due date. To ask for a waiver, please contact the instructor using Piazza or email. Do not contact LAs for this since they are not authorized to approve these requests.

In-class lab assignments MUST be submitted on or by the due date. There is no late policy for labs since late labs are NOT accepted. The two lowest scores are dropped to accommodate any circumstances that may prevent you from completing them all.

Assignment Grading Timeline
Assignments will be graded within two weeks. Graders are using detailed rubrics to score the assignments fairly and equitably across all sections. You will receive comments if points are deducted. For the first three in-class lab assignments and the first three homework assignments, you will be allowed to resubmit to correct errors with submissions and the use of outside concepts. You must resubmit by the end of the day on Monday of week 8. After the first three assignments (homework assignments and labs), resubmissions after grading will not be allowed.

If you think your submission was incorrectly graded, you have one week to contest a grade once it has been posted on Brightspace. After this one week, the grade will not be changed. To contest a grade, create a new post on Piazza to Instructors and select the grades folder. In the post, include your name, your instructor, your section, the assignment, and your reasons. This will allow the grader, instructor, and lead LA (Learning Assistant) to view your submission and make a decision. Do not email the grader directly. All communication regarding grading issues needs to be seen and approved by the instructor.

Midterm Exam

The midterm exam will be an in-person test during week 8. Make-up exams will not be offered, except for documented medical or family emergencies. If you will not be able to attend an exam due to an athletic game or other valid reason, then you must coordinate with the instructor before the exam is given. You may arrange to take the midterm exam before you leave, with approved university personnel during the time you are gone, or within the week the exam is given. If you do not take the midterm exam, then you will receive a 0 for it.

If you need accommodations, register with OSAS (Office of Student Accessibility Services). Once you receive your accommodation letter, you need to share your letter with the instructor at least two weeks before the exam. You may give it to them in person, send an email, or post it on Piazza. This will allow time for arrangements to be made. OSAS will not notify the instructor.

Final Exam

The final exam will be an in-person exam that will occur on the day and time according to the Final Examinations Schedule at https://classes.usc.edu/. This exam will cover all course materials.

Grading Breakdown

Category	% of Grade
Homework Assignments (weighted proportionally)	50
In-Class Labs & Polls*	15
Midterm Exam (weeks 1-7)	15
Final Exam (comprehensive)	20
TOTAL	100

* Polls are dependent on the instructor/section

Grading Scale

Course final grades will be determined using the following scale:

Letter grade	Corresponding numerical point range
A	>= 93
A-	>= 90 and < 93
B+	>= 87 and < 90
B	>= 83 and < 87
B-	>= 80 and < 83
C+	>= 77 and < 80
C	>= 73 and < 77
C-	>= 70 and < 73
D+	>= 67 and < 70
D	>= 65 and < 67
F	< 65

For the Pass/No Pass grading option, you must earn at least 70% to pass.

Joint Educational Project (JEP) – Extra Credit Opportunity

The Joint Educational Project (JEP) is a program that allows students to teach material learned in college classes to K12 students in the local community. The JEP commitment is approximately 2 hours/week for 8 weeks. For successful completion of JEP, based on the requirements as set by JEP, you will earn 1/3 of a letter grade extra credit, meaning if you earn a B- in the class, you will receive a B. You will need to sign up by Friday of week 2 at https://dornsife.usc.edu/joint-educational-project/sign-up/. More information is available on that website.

Attendance
Attendance is not part of the grading breakdown, although attending classes will help you learn the material and succeed in this course. If you are not able to attend synchronously, then it is your responsibility to watch the recorded lectures and complete the in-class lab assignments.

Adding the Course after Week 1
Per university policy, students are allowed to add the course until the end of week 3. Any students wishing to add the course should attend the course from the beginning of the semester. Upon adding the course after week 1, the student should email the instructor immediately to make a plan for the completion of work and learning missed materials. Any missed work is required to be completed and submitted according to the schedule provided by the instructor. If you register for the class after assignments are due, then you will have one week from when you registered for the class to submit the assignments. If you add the class during the third week of classes, then you must meet with the instructor to create a plan together on how to catch up to the rest of the class. By the beginning of week 4, two in-class lab assignments and two homework assignments are due.

Communication
The preferred way to communicate with instructors and LAs is by posting on Piazza (http://piazza.com). All ITP 115 students, instructors, and LAs will have access to the same course on Piazza. Information about accessing Piazza is available on Brightspace. If you have questions about assignments, exams, and other aspects of this course, please post on Piazza. You can make public posts that all members can see and answer or private posts to individuals, which are only accessible to instructors and LAs. To make a private post to all instructors and LAs, next to "Post to" select the "Individual Students(s) / Instructor(s)" option and enter "Instructors" in the text field. If you post more than one line of code, you must create a private post to Instructors.

Students should NOT directly email the LAs or graders: all correspondence with the LAs should be done on Piazza. If a direct email is required for any reason, the student must Cc the instructor in the email.

Students and Disability Accommodations
USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu. If you have course accommodations authorized by OSAS (Office of Student Accessibility Services), please email the instructor or post privately on Piazza and attach your accommodation letter by the end of Week 3. In the body of the message, include your name and class section.

Academic Integrity
This course will follow the expectations for academic integrity as stated in the USC Student Handbook. All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Assignments and projects in computer programming courses are *different* from those in some other types of courses. Students may NOT collaborate, work together, share code, or in any way exchange solutions for assignments and projects. Assignments may be analyzed by software that looks for similarities. Any sharing of ideas or code will be considered a violation of academic integrity (cheating). Do not share your code with anyone else in this or any future section of the course, as allowing someone else to copy your code carries the same penalty as you copying the code yourself. Do not submit another person's work as your own. Do not collaborate during exams. Do not cheat!

Course Content Distribution and Synchronous Session Recordings Policies
USC has policies that prohibit the recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class is not allowed unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. (Living our Unifying Values: The USC Student Handbook, page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study is not allowed. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relation to the class, whether obtained in class, via email, on the internet, or via any other media. (Living our Unifying Values: The USC Student Handbook, page 13).

Do not reproduce, distribute, or post any lecture material, assignments, or tests publicly without the written consent of the instructor. Students may take notes and make copies of course materials for their own use. Students may not post the course materials on sites such as CourseHero and Chegg. Doing so is a copyright violation and an academic integrity violation that will be dealt with accordingly.

Course Schedule: A Weekly Breakdown

	Topics	In-Class Lab	Lab Due Date*	Homework	Homework Due Date^
Week 1	Python Introduction Variables & Print	Installation		Homework 1	01/27/2025
Week 2	Math Operators User Input	Lab 1	01/24/2025	Homework 2	02/03/2025
Week 3	Branching Boolean Expressions	Lab 2	01/31/2025	Homework 3	02/10/2025
Week 4	While Loops	Lab 3	02/07/2025	Homework 4	02/17/2025
Week 5	For Loops	Lab 4	02/14/2025	Homework 5	02/24/2025
Week 6	String Processing Lists Part 1	Lab 5	02/21/2025	Homework 6	03/03/2025
Week 7	Lists Part 2 Lists and String				
Week 8	Midterm Exam	The midterm exam will be held during the second class session (or second hour).			
Week 9	Functions Part 1	Lab 6	03/14/2025	Homework 7	03/31/2025
Week 10	Functions Part 2	Lab 7	03/28/2025	Homework 8	04/07/2025
Week 11	Files (read and write)	Lab 8	04/04/2025	Homework 9	04/14/2025
Week 12	Dictionaries Part 1	Lab 9	04/11/2025	Homework 10	04/21/2025
Week 13	Dictionaries Part 2				
Week 14	Objects Part 1				
Week 15	Objects Part 2				
FINALS	Final Exam	The final exam will be held according to the Final Examinations Schedule at https://classes.usc.edu/.			

*   Each in-class lab assignment is due on Friday by 11:59 pm PT (Pacific Time).
^   Each homework assignment is due on Monday by 11:59 pm PT (Pacific Time).
*^   Dates are in MM/DD/YYYY format.

Statement on Academic Conduct and Support Systems

Academic Integrity:
The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, comprises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity, see the student handbook or the Office of Academic Integrity's website, and university policies on Research and Scholarship Misconduct.

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

Support Systems:
Counseling and Mental Health - *(213) 740-9355 – 24/7 on call*
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

988 Suicide and Crisis Lifeline - *988 for both calls and text messages – 24/7 on call*
The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

Relationship and Sexual Violence Prevention Services (RSVP) - *(213) 740-9355(WELL) – 24/7 on call*
Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - *(213) 740-5086*
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - *(213) 740-5086 or (213) 821-8298*
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) - *(213) 740-0776*
OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - *(213) 740-0411*
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - *(213) 740-2101*
Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - *UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call*
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - *UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call*
Non-emergency assistance or information.

Office of the Ombuds - *(213) 821-9556 (UPC) / (323-442-0382 (HSC)*
A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - *(323) 442-2850 or* otfp@med.usc.edu
Confidential Lifestyle Redesign services for USC students to support health-promoting habits and routines that enhance quality of life and academic performance.