

**CPSC 223P – Python Programming (3 units)**  
**California State University Fullerton**  
**Spring 2022**  
**Course Syllabus**

**Description & Objectives:** Characteristics of Python: portable, robust, secure, object-oriented, functional, high performance, extensible; types, expressions, and control flow; classes, abstract base classes, modules, and packages; threads; exceptions; Python standard library. 2 hours lecture and 2 hours laboratory per week).

We shall begin by working through rudimentary tutorials to gain fluency in Python. Along the way, a student is encouraged to compare and contrast the Python programming language to C++ or other languages learned prior to this course. We shall transition to more interesting exercises that move beyond language basics as a student gains fluency and mastery.

**Prerequisites:** CPSC 131

**Instructor:** Joseph Maa  
**Office Hours:** Mon 4:30-5:30  
**Email:** jmaa@csu.fullerton.edu

**Class Meetings:** *(The first 2 weeks will be via Zoom as listed in Canvas)*

CPSC 223P-03 ( 13705 )	Tu 5:00-6:45 PM	CS-300
CPSC 223P-04 ( 13706 )	Th 5:00-6:45 PM	CS-300

**Required Resources:**

1. Tuffix: Cal State Fullerton Computer Science Department's Linux development environment
2. Python Reference: <https://docs.python.org/release/3.10.2/>

**Learning Goals:**

1. Navigate and find relevant Python documentation.
2. Differentiate and compare built-in Python data types such as lists, dictionaries, tuples, etc.
3. Create object-oriented programs using experience and knowledge from prerequisite courses in approaching laboratory exercises.
4. Create hierarchies of reusable Python code files.

**G.E. Requirements:** This class does not meet any CSU General Education requirements.

**Course Outline:**

Week	Description	Reference
1 (1/24)	Course Review & Python Introduction	PT* §1-3
2 (1/31)	More Control Flow Tools	PT §4
3 (2/7)	More Control Flow Tools ( <i>cont.</i> )	PT §4
4 (2/14)	Data Structures	PT §5
5 (2/21)	<b>Exam 1 - Tuesday, 2/22</b>	
6 (2/28)	Modules	PT §6
7 (3/7)	Input and Output	PT §7
8 (3/14)	Errors and Exceptions	PT §8
9 (3/21)	Classes	PT §9
(3/28)	<b><i>Spring Recess - No Classes</i></b>	
10 (4/4)	Classes ( <i>cont.</i> )	PT §9
11 (4/11)	<b>Exam 2 - Tuesday, 4/12</b>	
12 (4/18)	Brief Tour of the Standard Library	PT §10
13 (4/25)	Brief Tour of the Standard Library — Part II	PT §11
14 (5/2)	Data Persistence - sqlite	PSL*
15 (5/9)	Internet Protocols and Support - client server	PSL
<b>Final Exam - Thursday, 5/19, 5:00pm - 6:50pm</b>		

\*PT: Python Tutorial @ <https://docs.python.org/release/3.10.2/tutorial/index.html>

\*PSL: Python Standard Library @ <https://docs.python.org/release/3.10.2/library/index.html>

**Grading:** Final grades are computed by first finding the average score in each category described in the first table below, then computing the weighted average according to the weights in the table. All scores are normalized to a scale of 0 to 100 before being averaged. The weighted average will be converted to a plus/minus letter grade according to the scale in the second table below.

<u>Category</u>	<u>Weight</u>
Laboratory	50%
Exam 1	15%
Exam 2	15%
Final Exam	20%

<u>Lowest (%)</u>	<u>Highest (%)</u>	<u>Letter</u>	<u>Lowest (%)</u>	<u>Highest (%)</u>	<u>Letter</u>
93.00	100.00	A	77.00	79.99	C+
90.00	92.99	A-	73.00	76.99	C
87.00	89.99	B+	70.00	72.99	C-
83.00	86.99	B	67.00	69.99	D+
80.00	82.99	B-	60.00	66.99	D
			0.00	59.99	F

### **Assignments:**

*Laboratory* – Laboratory assignments will be assigned at the beginning of each activity class. All assignments will be issued and submitted through GitHub and each student will be required to be complete the assignment using the Tuffix environment.

*Exam 1* – Exam 1 will cover all material from the Python Tutorial Sections 1 to 5. Exam 1 will be issued and submitted through GitHub and each student will be required to be complete the assignment using the Tuffix environment.

*Exam 2*– Exam 2 will cover all material from the Python Tutorial Sections 6 to 9. Exam 2 will be issued and submitted through GitHub and each student will be required to be complete the assignment using the Tuffix environment.

*Final Exam* – The final exam will be comprehensive and will cover the entire course work. The final exam will be issued and submitted through GitHub and each student will be required to be complete the assignment using the Tuffix environment.

**Important Dates:** CSUF's Academic Calendar is posted online at «<http://apps.fullerton.edu/AcademicCalendar/>». The Academic Calendar contains all the campus closures and holidays you should be aware of. CSUF's Admissions Calendar is posted online at «<http://www.fullerton.edu/admissions/Resources/Calendars.asp>». The

Admissions Calendar contains all the major dates with respect to adding, dropping, and withdrawing from your classes. The following are dates specific to this course:

2/21	Exam 1
4/11	Exam 2
5/19	Final Exam

**Technical Proficiency:** Technical proficiency with information technology, such as, but not limited to, the use of web-based online services, sending and receiving electronic mail, and desktop computer file systems, is assumed.

**Tuffix Environment:** Students enrolled in CPSC 120, CPSC 121, and CPSC 131 are required to use the Computer Science Department's official Linux development environment, Tuffix. Tuffix is Tuffy the Titan's Linux distribution. The Tuffix Titanium Community for Students, <https://communities.fullerton.edu/course/view.php?id=1547> is the best venue to receive help with Tuffix. (Students may self-enroll in the community; instructions online at «<http://titaniumhelp.fullerton.edu/m/FAQ/1/492060-how-do-i-enable-self-enrollment-for-my-community>».)

**Development Tool Resources:** Students interested in using Microsoft® development tools may request a Dreamspark account at «<http://dsreqform.ecs.fullerton.edu/>». A student may, at no monetary cost, download full featured versions of Microsoft Visual Studio.

Students interested in using Apple® development tools can freely download Xcode through the App Store application bundled with OS X. Students may download Xcode directly from «<https://developer.apple.com/xcode/>».

A Debian-based GNU/Linux OS virtual machine ready for students use and Debian-style installation scripts are posted online at «<https://gamble.ecs.fullerton.edu/resources/>».

A CentOS-based shell server is available through secure shell (ssh) and secure file transfer protocol (sftp). The hostname is ecs.fullerton.edu. If your email address is malcolm@csu.fullerton.edu, then your username is ACAD\malcolm. If you are using a command-line ssh client, then your command to connect to ecs.fullerton.edu will be `ssh 'ACAD\malcolm@ecs.fullerton.edu'`. Your password is the same password as your CSUF Portal password.

**Attendance Policy:** Attending class is mandatory. Missing class is not allowed unless it is excused by the instructor. Missing class as part of a documented accommodation is guaranteed to be excused. The ADA accommodated student must make a reasonable effort to coordinate any absences with the instructor.

**Make Up Policy:** Exams cannot be taken after they have been given in class. Due to an act of nature, personal medical emergency, a family crisis, an act of terrorism, severe civil unrest, etc. students have 10 calendar days to petition the instructor to retake any exam or submit an assignment without late penalty. Exceptions shall be made on a case by case basis, provided there is time to evaluate the merits of such an application.

**Participation:** In the context of this course, participation is defined as the following:

- Arriving to class prepared and on time.
- Taking notes.
- Actively listening to the lecture and asking questions when appropriate.
- Annotating code listings and handouts.
- Bringing any required materials to class.
- When needed/desired, seeking assistance to complete assignments.
- Barring an emergency, not leaving the class session early unless the instructor consents.
- Not distracting oneself or others with smartphones, games, online diversions, etc.
- Respecting and treating the instructor and the student's peers civilly.

**Academic Dishonesty:** Students are encouraged to assist one another and discuss the course materials with your peers. It is your responsibility to be aware of and follow the spirit of CSU Fullerton's academic honesty policy which can be found at «[http://www.fullerton.edu/senate/publications\\_policies\\_resolutions/ups/UPS%20300/UPS%20300.021.pdf](http://www.fullerton.edu/senate/publications_policies_resolutions/ups/UPS%20300/UPS%20300.021.pdf)». Academic dishonesty will not be tolerated. The University Catalog and the Class Schedule provide a detailed description of Academic Dishonesty under *University Regulations*. By submitting work for evaluation, you acknowledge that you have adhered to the spirit of the university's academic honesty policy and that your submission is an original work by you unless otherwise directed to work in groups. Failure to follow the spirit of the academic honesty policy will result in a severely negative evaluation of the work in question and may result in involving the Department Chair and the Judicial Affairs office to seek a disciplinary remedy.

**ADA Accommodations:** Any student who, because of a disability, may require special arrangements in order to meet course requirements must register with the Office of Disability Support Services within the first week of classes. The Office of Disability Support Services' website is «<http://www.fullerton.edu/DSS/>». They can be reached by phone at 657-278-3117 or TDD at 657-278-2786. Their email address is «[dsservices@fullerton.edu](mailto:dsservices@fullerton.edu)». Their office is located in University Hall, room 101. The instructor may request verification of need from the Dean of Students Office. Students requesting accommodations shall inform their instructors during the first week of classes about any disability or special needs that may require specific arrangements/accommodations related to attending class sessions, completing course assignments, writing papers or quizzes, tests or examinations.

**Emergency Procedures:** For your own safety and the safety of others, each student is expected to read and understand the guidelines published at «<http://prepare.fullerton.edu/campuspreparedness/>». Should an emergency occur, follow the instructions given to you by faculty, staff, and public safety officials. An emergency information recording is available by calling the Campus Operation and Emergency Closure line at 657-278-4444.

**Instructional Continuity:** Due to an event such as an epidemic or a natural disaster that disrupts normal campus operations, students must monitor the course Titanium site and their campus email address for any instructions and assignments that the instructor announces.

**Laboratory Safety:** Safety is no accident. Learning and following the appropriate safety practices and protocols is an integral part to all laboratory courses. Following the appropriate safety practices and protocols minimizes the chances of repetitive stress injuries, mishandling hazardous materials, and injury to self and others. Additional campus laboratory safety information regarding hazardous materials is online at «<http://riskmanagement.fullerton.edu/laboratorysafety/>».

**Extra Credit:** There are no opportunities for extra credit.

**Recording & Transcription of Class Content:** Recording class content is governed by UPS 330.230, «[http://www.fullerton.edu/senate/publications\\_policies\\_resolutions/ups/UPS%20300/UPS%20330.230.pdf](http://www.fullerton.edu/senate/publications_policies_resolutions/ups/UPS%20300/UPS%20330.230.pdf)». Each instructor must permit class content to be recorded or transcribed by students when mandated to do so by the Americans with Disabilities Act or by other federal or state laws. Any recording of class content is for private use and study and shall not be made publicly accessible without the written consent of the instructor and students in the class.

**Course Rules & Classroom Management:** Unless an agreement or accommodation is reached between the student and the instructor, these rules must be followed.

- Attendance at all regularly scheduled lecture and discussion section is mandatory.
- Do not eat during lecture.
- If it makes noise, silence it.
- Portable computer use is not allowed in lecture except for taking notes.
- The student is responsible to be aware of any course announcements including changes to due dates and requirements.
- Homework, programming assignments, etc. may not be submitted late.
- Third party work (code, artwork, etc.) may not be used in student work without prior instructor consent. Failure to gain and document instructor consent will be construed as willful academic dishonesty.
- When a third party's work is incorporated into student work after gaining instructor consent, failure to wholly document the work's origin, copyright and license will be construed as willful academic dishonesty.