

# CSC 115-02: Introduction to Computer Programming Concepts

Spring 2023

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<b>Classroom</b>	SAC 2102	<b>Class Time</b>	T/Th 11:30am–12:45pm
<b>Office</b>	NSM A-141	<b>Office Hours</b>	T/Th 1:00pm–2:30pm
<b>Phone</b>	(310)-243-2450	<b>URL</b>	<a href="https://www.csudh.edu/csc/">https://www.csudh.edu/csc/</a>

**PRE-REQUISITE:** None

## Catalog Course Description:

This course introduces students to computer programming by teaching techniques of problem solving. Students will become acquainted with decision constructs, looping structures, and subroutine modules. Students will learn the vocabulary of object-oriented programming. This course uses a language-independent approach to teach programming concepts and problem-solving skills, without assuming any previous programming experience. By using easy-to-understand pseudo-code, flowcharts, and other tools, students learn how to design the logic of programs without the complication of language syntax. Fundamental topics include introduction to computers and programming, modules, decision structures, repetition structures, functions, arrays, recursion, and object-oriented programming.

## Student Learning Outcomes:

At the end of the course and upon completion, students will be able to

- Answer basic questions about computers hardware and software, data storage and manipulation, and how programs work in computers
- Design simple programs that read input, perform mathematical operations, and produce screen output
- Write modularized pseudo-code and flowcharts to control the flow of a program with decision structures, create repetition structures, define, and call functions, write input validation loops that serve as error traps, and create and work with one- and two-dimensional arrays
- Conduct text processing at a detailed level, answer basic questions about recursion and write simple recursive methods, and model classes with UML and write simple classes
- Read and write sets of data, store data as fields and records, and design programs that work with both files and arrays
- Understand basic aspects of designing a GUI application and write simple GUI programs

## Course Textbook:

Starting Out with Python (4<sup>th</sup> Edition)

Author: Tony Gaddis, Publisher: Pearson (March 06, 2017)

ISBN-10: 0134444329      ISBN-13: 978-0134444321

## Required Computer Software/Hardware Capabilities:

- **Computer:** You must have access to a reliable computer for this course. If you are on campus and do not have a laptop, you can check out a laptop from the IT User Services Help Desk via Technology Checkout Program. In addition, the Toro Student Computer Lab offers on campus access to workstations with a wide variety of commonly used software. Visit the CSUDH

Online Courses Technical Requirements page for more information on technology requirements.

- **Zoom:** This course will use Zoom web conferencing software for online meetings/office hours/online lectures. Visit the Zoom website for detailed information on using Zoom.
- **Email:** All email communications from this course will go through your Toromail, the CSUDH student email system.
- **Internet:** You must have Internet access to participate in this course. If you are on campus, connect your laptop and mobile device to the internet using the eduroam campus wireless network.

### **Computer Literacy Skills Expectations:**

It is expected that students will:

- Have regular access to computers and internet access for the term of this course
- Be familiar with using email as a communication tool and check your campus email account at least every other day
- Be able to access online course materials, and open the materials and finish the required problems using applications, such as online tools, IDLE, Eclipse or other IDEs, PowerPoint reader, Word reader and PDF reader
- Do research on your own to solve problems in and after the lecture classes.

### **Academic Integrity:**

Academic integrity is of central importance in this and every other course at CSUDH. You are obliged to consult the appropriate sections of the University Catalog and obey all rules and regulations imposed by the University relevant to its lawful missions, processes, and functions. All work turned in by a student for a grade must be the students' own work. Plagiarism and cheating (e.g., stealing or copying the work of others and turning it in as your own) will not be tolerated, and will be dealt with according to University policy. The consequences for being caught plagiarizing or cheating range from a minimum of a zero grade for the work you plagiarized or cheated on, to being dropped from the course.

### **Academic Honor Code / Plagiarism Expectations:**

Programming assignments must be done individually. Failure to do so will result in a violation of the CSUDH Academic Honor Code. The following cases will be considered as violations: identical code, and extremely similar code. Violations will be reported to the Office of Vice President of Academic Affairs.

### **Course Requirements:**

- **Attendance & Participation ():** Attendance and Participation in lecture meetings
- **Quizzes (5 Quizzes in total):** Each quiz will be given at the end of class meetings, which will be multiple choices, truth/false, and short answer questions.
- **Assignments (5 Assignments in total):** Students should turn in the assignment by the due date except for the programming problems.
- **Exams (2 Exams in total):** Any change to the exam dates will be announced in class at least one week before the original exam dates.
- **Final Exam (1 Final Exam in total):** The final exam is cumulative and will be held according to the university final exam schedule. Each student is required to score at least 65% in the final exam to pass the course, namely if a student fails to score at least 65% in the final exam, he/she will directly fail this course no matter how high he/she scores in the other components of this course. If a student scores at least 65% in the final exam, then his/her final overall grade will be

calculated based on the score distribution mentioned below and the grading scale table shown below.

**Grading Policy:**

Plus/Minus Grading System

**Grading Scale:**

Score Range	Grade	Score Range	Grade	Score Range	Grade
>= 96	A	[90,96)	A-	[87, 90)	B+
[83, 87)	B	[80, 83)	B-	[77, 80)	C+
[73, 77)	C	[70, 73)	C-	[67, 70)	D+
[63, 67)	D	[60, 63)	D-	Below 60	F

**Weighted Score Distribution:**

Attendance & Participation	5%
Quizzes	10% (2% for each)
Assignments:	15% (3% for each)
Exams:	20% (10% for each)
Final Exam:	50%
Total:	100%

**Policies:**

- **Attendance:** Attendance for every lecture is not required; however, attendance is encouraged and each student is responsible for material covered in class. Points/credit is given for attendance.
- **Assignment Due Dates:** Date and time for when assignments are due will be provided on Blackboard
- **Late Work:** Late Assignments will not be accepted and cannot be made up
- **Missed Exams:** Cannot be made up

**Americans with Disabilities Act:**

Access to publications, instructional material, computer software, hardware, and electronic information, as well as access to the campus are critical for the educational and career achievement of all persons. CSUDH seeks to enable that access with this directory of information and services. The policy of the CSU is to make its programs, services, and activities accessible to students, faculty, staff, and the public who visit or attend a campus-sponsored event, with disabilities.

CSUDH adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with temporary and permanent disabilities. If you have a disability that may adversely affect your work in this class, I encourage you to register with Student Disability Resource Center (SdRC) and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made

until you register with the SdRC. For information call (310) 243-3660 or to use the Telecommunications Device for the Deaf, call (310) 243-2028 or go to: <https://www.csudh.edu/sdrc/>

**Class Meetings:**

Lectures will be traditional in-person / on-ground meetings. In-person meetings will be held on campus in the Small Academic Complex (SAC) building in room 2102.

**Extra Credit:**

Extra credit will be made available if deemed appropriate by the instructor.

**Behavioral Standards:**

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students’ ability to learn and an instructor’s ability to teach. The instructor may require a student responsible for disruptive behavior to leave class pending discussion and resolution of the problem and may also report a disruptive student to the Student Affairs Office (WH A-410, 310-243-3784) for disciplinary action.

**Tentative Course Outline and Schedule:**

The chapters with “\*” marked are core chapters and will be covered. The other chapters may be covered if time allows. The dates in the table are tentative, the actual topics covered on certain dates and the actual quiz/assignment/exam dates might be different and will depend on class progress.

Week	Coverage	Assignments/Quizzes/Exams
1	Syllabus and Introductions	
1-2	Chapter 1* Introduction to Computers and Programming	Assignment 1 Due
2-3	Chapter 2* Input, Processing, and Output	Quiz 1
3-4	Chapter 3* Decision Structures and Boolean Logic	Assignment 2 Due
4-5	Chapter 4* Repetition Structures	Quiz 2
6-7	Chapter 5* Functions	Exam1
7-8	Chapter 7* Lists and Tuples	
8-9	Chapter 10* Object-Oriented Programming	Assignment 3 Due
9	Chapter 12* Recursion	Quiz 3
10	Spring Recess	
11	Chapter 6 Files and Exceptions	Assignment 4 Due
12	Chapter 8 More About Strings	Exam 2
13	Chapter 9 Dictionaries and Sets	Quiz 4
14	Chapter 11 Inheritance	Assignment 5 Due
15	Chapter 13 GUI Programming	Quiz 5
16-17	Final Review & Finals Week	Final Exam