CPSC 1301 Syllabus, Fall, 2021

Charles Carter

October 14, 2021

1   Course Information

Name: CPSC-1301, Computer Science I

Description: This course includes an overview of computers and programming; problem solving and algorithm development; simple data types; arithmetic and logic operators; selection structures; repetition structures; text files; arrays (one-and-two-dimensional); procedural abstraction and software design; modular programming (including sub-programs or the equivalent). This course is a required course for Computer Science, Information Technology, Management Information Systems, and Math. This course counts in Area D for other majors.

Location: CCT 407

Times: Tuesday, Thursday, from 6:00 p.m to 8:45 p.m. We will have two 10 minute breaks during this class period: from 6:50 p.m. to 7:00, and from 7:50 p.m. to 8:00. I will typically reserve the last 15 minutes of class for a daily quiz.

Instructor: Charles Carter

Email: carter_charles@columbusstate.edu

Office Hours: by appointment only

2   Learning Outcomes

> **The primary outcome of this course is to develop the ability to write a program that runs and emits the correct output for a given input.**

This includes (1) analyzing a problem to determine the requirements, (2) designing appropriate algorithms/data structures that will solve the problem, (3) implementing the design in code that compiles and runs, (4) testing the program against the requirements, and (5) debugging the program if necessary and repeating the process.

More specifically, upon completion of this course, you will be able to:

- demonstrate an understanding of fundamental concepts of computer programming, including problem solving and algorithm development, procedural abstraction and software design
- be able to use simple data types, control structures, array and string data structures
- demonstrate these basic skills in programming by writing several significant programs
- use good software engineering principles and developing fundamental programming skills in the context of a language that supports the object-oriented paradigm
- be familiar with standard debugging techniques.

3   Resources

Unless indicated, all resources are available without cost.

Title	ISBN, URL
personal laptop (encouraged but not required)	
Python (required)	https://www.python.org/downloads/
How to Think Like a Computer Scientist	https://openbookproject.net/thinkcs/python/english3e/

Learning Python by Mark Lutz, 5th edition[1]	ISBN:978-1449355739
Official Python Documentation	`https://docs.python.org/3/`
W3Schools Python Tutorial [2]	`https://www.w3schools.com/python/`
Tutorials Point Python Tutorial [2]	`https://www.tutorialspoint.com/python/index.htm`
Notepad++ (required text editor)	`https://notepad-plus-plus.org/`
git SCM	`https://git-scm.com/`
Pro Git, Chacon and Straub [2]	`https://git-scm.com/book/en/v2`

4   Course Assessment

Evaluation Item	Weight	Metrics
Homework	30%	Homework and class discussions are based on the assigned homework. **Completion of the written homework assignments is mandatory.** Homework/discussions will be assessed on a pass/fail basis, based on class presentations. You will receive a discussion grade for every homework assignment completed and your class participation.
Programming Exercises	30%	Programming exercises receive a grade on a 0 to 100 point scale. Ordinarily, we will do exercises outside of class over the weekends. These are open book/open note exercises. You may work individually or in groups/pairs as directed. If you do not complete a graded exercise, you will receive a grade of 0 for that exercise.
In-class Labs	10%	Labs are assessed on a pass/fail basis. You will receive a grade for a lab after you have notified me that you have completed the lab. Deadline for lab submission is by the end of the day the lab is scheduled. Ordinarily, we will do the labs in class. If you do not complete a lab in class, you must complete it outside of class.
Quizzes	10%	These are *quizzes*, except that these will be timed, in-class labs completed individually on an open note, open book, open internet basis. You will demonstrate that your code compiles and runs, and email me your source listing before getting credit. There are no makeups. A failure to complete a quiz during the allocated time will result in a zero.
CodePost	10%	These are *CpdePost* automatically graded labs completed individually on an open note, open book, open internet basis. You will demonstrate that your code compiles by autoloading it into CodePost.
Final Exam	10%	

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[1]Available at Safari-Online for no cost, lowest current commercial cost is \$14.89 at Amazon
[2]This resource is optional.

5   Course Schedule

Homework and programming exercises are due at the beginning of class on Tuesdays. Labs and quizzes are due by midnight on the date they are assigned. All assignments shall be in written form, and may be delivered electronically. Format shall be in plain text files, or alternately, in Markdown format if desired. Please do *not* use Word or any other word processing software. **Late policy:** Ordinarily, I do not penalize late assignments. We will usually go over the assignments in class after the due date, and it is expected that students will correct their errors and resubmit their assignments. I reserve the right to enforce a late policy if students are not diligent about submitting the assignments. Please do not fall behind — this class is hard enough without having to catch up.

Week	Due Date	Homework	Exercise	Readings	Pages
Week 1	August 17	no homework	no exercise	Chapter 1 and 2	41
Week 2	August 24	Homework 01	Exercise 01 (Hello)	Chapter 3	45
Week 3	August 31	Homework 02	Exercise 02 (MathFormulas)	Chapter 4	39
Week 4	September 7	Homework 03	Exercise 03 (RecurMethods)	Chapter 5 and 6	56
Week 5	September 14	Homework 04	Exercise 04 (ListPlay)	Chapter 7	51
Week 6	September 21	Homework 05	Exercise 05 (Cards)	Chapter 8	35
Week 7	September 28	Homework 06	Exercise 06 (GuessMyNum)	Chapter 9	40
Week 8	October 5	Homework 07	Exercise 07 (MathGames)	Chapter 10 and 11	54
Week 9	October 12	Homework 08	Exercise 08 (Exceptions)	Chapter 12 and 13	46
Week 10	October 19	Homework 09	Exercise 09 (MagicNumbers)	Chapter 14 and 15	54
Week 11	October 26	Homework 10	Exercise 10 (PasswordDict)	Chapter 16 and 17	51
Week 12	November 2	Homework 11	Exercise 11 (HistoryTest1)	Chapter 18 and 19	58
Week 13	November 9	Homework 12	Exercise 12 (HistoryTest2)	Chapter 20 (omit 21)	47
Week 14	November 16[3]	Homework 13	Exercise 13 (Roulette1)	Chapter 22 and 23	40
Week 15	November 23	Homework 14	Exercise 14 (Roulette2)	no reading	
Week 16	November 30	no homework	no exercise	no reading	
Finals	December 5[4]	no homework	Final Exercise (Encryption)	Happy Holidays!	

6   Administrative Policies

6.1   Attendance Policy

Student attendance is required for all lecture and laboratory sessions. Any work missed as a result of absence may be made-up at the discretion of the instructor. In class quizzes may not be made up. Work missed as a result of an excused absence may be excused.

6.2   ADA and 504 Statement

Columbus State University provides reasonable accommodations for all qualified persons under the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973, Section 504. You may be eligible to receive accommodations to assist in programmatic and/or physical accessibility. We recommend that you contact the Center for Accommodation and Access located in Schuster Student Success Center, Room 102, 706-507-8755 as soon as possible if you think you are eligible for accommodations. The Center for Accommodation and Access can assist you in formulating a reasonable accommodation plan, in identifying additional resources, and in providing support. Accommodations may be able to assist you to meet the requirements. Technical support may also be available to meet your specific need. Please contact Lauren Jones McKown if you have questions. She can be reached at 706-507-8755 or at jones_lauren3@columbusstate.edu.

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[3]Last class day is November 18
[4]Final due date TBD

6.3   Title IX Discrimination

Under Title IX of the Education Amendments of 1972, harassment based on sex, including non-consensual sexual contact, stalking, sexual exploitation, domestic and dating violence, and harassment because of pregnancy or related conditions, is prohibited. If a student would like to file a complaint for Title IX discrimination or has any questions, please contact the CSU Title IX Coordinator (Lauren Jones McKown, J.D. 4225 University Avenue, Schuster 102, Columbus, GA 31907, jones_lauren3@columbusstate.edu, 706.507.8757) and/or the Office of Civil Rights (Atlanta Office, U.S. Department of Education, 61 Forsyth Street S.W., Suite 19T10, Atlanta, GA 30303-8927, 404.974.9406, OCR.Atlanta@ed.gov).

6.4   CSU Social Distancing Statement

Students and faculty are expected to remain socially distanced during the course of the pandemic. For courses that are designated for face-to-face or hybrid delivery, it is advised that information sharing should occur electronically. For safety, while physically present, all individuals should remain 6+ feet apart at all times. Unless otherwise necessary, syllabi and other educational materials should be provided via CougarVIEW, email, or other remote medium. The University System of Georgia (USG) requires all faculty, staff, students, and visitors to wear an appropriate face covering while inside campus facilities/buildings. Face covering use will be in addition to and is not a substitute for social distancing. All classrooms will be set up in adherence to physical distancing guidelines. While certain lab and studio courses may not meet the 6-feet recommendation, students and faculty are required to wear face coverings and adhere to the necessary sanitation requirements for the lab or studio space. Anyone not using a face covering when required will be asked to wear one or must leave the area. Repeated refusal to comply with the face mask requirement may result in disciplinary action through the applicable conduct code found in the COVID-19 Response and Updates - Columbus State University.

Any student asked to leave will be counted absent for that class period. Reasonable accommodations may be made for those who are unable to wear a face-covering for documented health reasons. Please notify your instructor immediately if you require a face-covering accommodation.

If you are not able to attend class due to illness, please send an email to indicate that you will be absent. In lieu of attending class, you may access the course materials through CougarVIEW, and participate remotely until such time that you are able to return to class. Please keep me informed on your ability to return to class, in accordance with CDC guidelines, as it is important for me to know when to expect you in-person.

6.5   Covid-19 Statement

Any student asked to leave will be counted absent for that class period. Reasonable accommodations may be made for those who are unable to wear a face-covering for documented health reasons. Please notify your instructor immediately if you require a face-covering accommodation.

The University System of Georgia (USG) strongly encourages all faculty, staff, students, and visitors to get vaccinated in order to safely promote the typical student and faculty interactions in and outside the classroom. Face coverings are also strongly recommended while inside campus facilities/buildings regardless of vaccination status. Unvaccinated individuals should wear a face covering indoors and physically distance when possible. Faculty members may request that all students, regardless of vaccination status, wear face coverings in the classroom setting.

If you are not able to attend class due to illness, please send an email to indicate that you will be absent. In lieu of attending class, you may access the course materials through CougarVIEW, and participate remotely until such time that you are able to return to class. Please keep me informed on your ability to return to class, in accordance with CDC guidelines, as it is important for me to know when to expect you in-person.

Specific guidelines and procedures regarding Columbus State's response to COVID-19 and what to do if you need to self-report symptoms, exposures, or a positive COVID-19 test are outlined at columbusstate.edu/covid. Since the pandemic is an ever-evolving public health situation, please monitor your official CSU email for notices of updates to this site.

6.6   Academic Integrity

All students are expected to recognize and uphold standards of intellectual and academic integrity. As a basic and minimum standard of conduct in academic matters that students be honest and that they submit for credit only the products of their own efforts. Both the ideals of scholarship and the need for fairness require that all dishonest work be rejected as a basis for academic credit. They also require that students refrain from any and all forms of dishonorable or unethical conduct related to their academic work. Students are expected to comply

with the provisions of Section III, "Student Responsibilities," of the Columbus State University Student Handbook. This specifically includes the sections on "Academic Irregularity," and "Conduct Irregularity." In particular, the Columbus State University Student Handbook states: "No student shall give or receive assistance in the preparation of any assignment, essay, laboratory report, or examination to be submitted as a requirement for any academic course in such a way that the submitted work can no longer be considered the personal effort of the student submitting the work." Examples of Academic Dishonesty include but are not limited to: Plagiarism (see definition below), giving or receiving unauthorized assistance on exams, quizzes, class assignments or projects, unauthorized collaboration, multiple submissions (in whole or part) of work that has been previously submitted for credit. Plagiarism is any attempt to represent the work or ideas of someone else as your own. This includes purchasing or obtaining papers from any person and turning them in as your own. It also includes the use of paraphrases or quotes from a published source without properly citing the source. All written assignments may be submitted for textual similarity review to Turnitin.com for the detection of plagiarism. Any work turned in for individual credit must be entirely the work of the student submitting the work. All work must be your own. You may share ideas but submitting identical assignments (for example) will be considered cheating. You may discuss the material in the course and help one another with debugging, however, I expect any work you hand in for a grade to be your own. A simple way to avoid inadvertent plagiarism is to talk about the assignments, but don't read each other's work or write solutions together. Keep scratch paper and old versions of assignments until after the assignment has been graded and returned to you. If you have any questions about this, please see me immediately. No cheating in any form will be tolerated. Please be aware that anyone caught cheating or plagiarizing in this class will receive a zero for the assignment/exam and may receive an F for the course.

6.7 Student Complaint Process

Information and resources for student complaints and academic appeals are located at the following link on the Columbus State University website http://aa.columbusstate.edu/appeals/.

6.8 Changes to Syllabus

This syllabus is provisional and may be changed. Students will be given notice in a timely manner of all changes to this syllabus. Notice may be given orally in class. Updated syllabi completely replace all prior versions. The latest revision date is given on each page.