



2022 Winter Syllabus

Comp 151: Computer Science I (3 credit hours)

Department of Computer Science

General Information

Duration: 22nd December 2022- 16th January 2023

Instructor: TBA

Course page: <http://bridgew.blackboard.com> (BSU Blackboard)

Course Description

This is a beginning course in programming, which introduces concepts of computer organization. Problem-solving methods and algorithmic development stressing good programming style and documentation including top down and modular design will be covered. This course emphasizes problem solving with programming exercises run on the computer.

Required Textbook(s)

Python Programming: An Introduction to Computer Science, John M. Zelle, 2nd edition (Python 3.x), 2010, (ISBN-10: 1590282418 or ISBN-13: 978-1590282410).

Student Learning Outcomes

At the end of the course students should be able to:

- Understand the fundamental syntax & computer programs.
- Understand the fundamental control and loop (iteration) structures.
- Program simple algorithms, such as counting, summing, and finding maximum/minimum.
- Implement, test, and debug simple recursive functions and procedures.
- Understand the basic data structures used in programming (such as arrays and array lists).
- Demonstrate knowledge of basic recursion.
- Argue effectively about the merits and possible unintended consequences of a computing implementation.
- Effectively write or present about the impact of computing on society. Students should extrapolate from historic lessons learned from unintended consequences of computing to the current computer solutions.



Course Requirements and Evaluation Methods

There will be a midterm and a final exam. Approximately 11 homework assignments will be given throughout the semester.

All programs (source code) must contain comments. Failure in using proper comments will result in reduced grades assigned to the programming assignments. The comments should include the following:

- A comment at the beginning to identify author, date and class.
- A comment at the beginning to explain the purpose of the program. This must be written in standard English.
- For each variable (in the declaration section), a comment must be included stating the purpose/use of the variable unless the variable name implicitly provides this information.
- The purpose of each subroutine must also be stated in standard English at the beginning of the function.
- The code itself shall contain additional comments so that someone can follow the program with the purpose statements and these additional comments. These comments do not have to be written in standard English.

The final grade will be given according to the following tentative weights

Grade Components:

Homework Assignments 40%

Quizzes 10%

Midterm 25%

Final 25%

Course Outline and Schedule

Week	Topic(s)
Week 1	Introduction (Chap 1) I/O statements, arithmetic expressions, assignment statement Constants and variables Data types (int, float, string), type conversions, built-in functions (Chap 2 & Chap3) Introduction to Objects and Graphics (Chap 4)
Week 2	Sequences: strings, lists, and files (Chap 5)



	Functions Parameter passing (Chap6) Selection/Decision structures (Chap 7) Review and Midterm
Week 3	Loop structures (Chap 8) Defining classes (Chap 10) Recursion and Debugging (Chap 13)
Week 4	Computing and Society Ethics of Computing Review Final Exam

Progress Report

Students will be provided with their progress in the course at least once prior to the mid-point of the course. The mid-term grade will be determined based on the test and assignments due prior to the mid-term.

Late Assignment Policy

Each homework assignment is due at the end of the day (11:59 pm) of the due date. Late assignment will be penalized 10% per day for each day late (excluding weekends and holidays). No assignments will be accepted if they are late for more than three days.

Attendance Policy

Quizzes will be used as attendance record. Students with unusual circumstances should advise the instructor of their situation immediately. Students will be held responsible for all announcements made in class.

Academic Integrity

- Unless an assignment is clearly introduced as a team project, the student should do his/her work independently.
- We have a zero-tolerance policy for cheating. First-time offenses will result in 0 points for the corresponding assignments or tests and a meeting with the professor. Second-time offenses will result in more serious consequences: possibly failing the course and a referral to Academic Affairs Office.

Students are advised that Academic Integrity policy will strictly be enforced in this course. “At Bridgewater State University, academic honesty is expected of all students; plagiarism and cheating are not condoned and are subject to academic



penalty, which may result in a failure for the course in which the violation took place. A violation may result in a reduced grade, suspension or dismissal from the university.” – excerpted from the Academic Integrity and Classroom Conduct policy. The Academic Integrity policy is available at http://catalog.bridgew.edu/content.php?catoid=7&navoid=486#Academic_Integrity_and_Classroom_Conduct.

Additional Notes

The instructor reserves the right to modify course policies, course schedule, and assignment/ project grade weight and due date. All students are expected to be responsible users of the computer systems for this course. If you require accommodation based on disability, please meet with the instructor in the first week of the semester to make sure you are appropriately accommodated.