

# SYLLABUS

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**Code:** COMP128

**Title:** Fundamentals of Programming

**Institute:** STEM

**Department:** Computer Science

**Course Description:** The student explores problem solving concepts, algorithm design and analysis using pseudo code, Alice, and a programming language. Students are required to produce algorithms and applications using data, decision making, repetition, and lists. The software development process and human-computer interaction are discussed and incorporated in exercises.

**Prerequisites:** None

**Corequisites:** None

**Credits:** 1

**Lecture Hours:** 1

**Lab/Studio Hours:**

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**REQUIRED TEXTBOOK/MATERIALS:**

**Text:** Not Required

**Storage:** A portable secondary storage media (i.e., flash drive)

**Software:** The course uses Alice which is a free download from [www.alice.org](http://www.alice.org). The Brookdale Computer Science lab, LAH 103, has Alice software deployed for student use.

**ADDITIONAL TIME REQUIREMENTS:** The student should expect to spend at least 2 hours of time outside class for each hour in class. The Computer Science Main Lab is in room LAH 103 of Larrison Hall. Hours are posted on the outside door and on the Computer Science Website ( <http://sites.brookdalecc.edu/home/stem-institute/computer-science/computer-science-lab/>).

**COURSE LEARNING OUTCOMES:**

Upon Completion of this course, students will be able to:

- Develop logic and apply an algorithm design to solve a variety of problems
- Critique different algorithms in terms of being concise, elegant, and generic
- Distinguish between logic and syntax errors
- Design and implement solutions using decisions, repetition, and lists
- Design, implement, test and evaluate test results of algorithms

**GRADING STANDARD:**

The final grade is based upon 2 tests, 5 homework assignments and classroom exercises. To be considered acceptable, a homework must be free of all syntax and logic errors and must meet all of the requirements outlined by the problem statement. Homeworks must also meet documentation and style requirements as outlined by the instructor. See the instructor addendum for how homeworks and classroom exercises are weighted. The final course average is determined as follows:

Test 1 – Units 1 and 2	40%
Test 2 – Units 3 and 4	40%
5 Homeworks and classroom exercises	20%

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The final grade is based upon the numeric average as specified in the following table:

Numeric Average	Final Grade
94 – 100	A
90 – 93	A-
87 – 89	B+
84 – 86	B
80 – 83	B-
75 – 79	C+
70 – 74	C
60 – 69	D
Below 60	F

## **Department Policies:**

**Testing:** Students will be allowed to take each test only **one** time. There are **no retests**. If a student has a valid excused absence on the day of the test, the test may be taken in the Testing Center with the permission of the instructor. The exam must be taken within 10 days and will be graded for full credit. Saturdays and Sundays count as days when calculating the 10 day limit. If not taken within the 10 days, a grade of zero will be assigned to the test. A valid Brookdale ID is required to take the test at the testing center. Only one in class test may be missed. Any other test taken in the testing center will receive a maximum grade of 70.

**Late assignments:** Labs are to be submitted on a timely basis. The instructor will assign due dates. No more than 25 percent of the total labs may be submitted during the last two weeks of the semester.

**Attendance:** Attendance is required every week. More than three absences will result in a failing grade.

**Addendums:** Individual Instructors may add additional requirements to this syllabus in written form (such as assignment due dates, cover sheets, class behavior, etc.).

<p><b>ACADEMIC VIOLATION:</b> The instructor of the course has the authority to give a course grade of <b>F</b> if the student submits the work of another person in a manner that represents the work as one's own, or knowingly permits one's work to be submitted by another person without the instructor's authorization. All computer work must be on your own portable storage device.</p>
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## **College Policies:**

As an academic institution, Brookdale facilitates the free exchange of ideas, upholds the virtues of civil discourse, and honors diverse perspectives informed by credible sources. Our College values all students and strives for inclusion and safety regardless of a student's disability, age, sex, gender identity, sexual orientation, race, ethnicity, country of origin, immigration status, religious affiliation, political orientation, socioeconomic standing, and veteran status. For additional information, support services, and engagement opportunities, please visit [www.brookdalecc.edu/support](http://www.brookdalecc.edu/support).

For information regarding:

- ◆ Brookdale's Academic Integrity Code
- ◆ Student Conduct Code
- ◆ Student Grade Appeal Process

Please refer to the [BCC STUDENT HANDBOOK AND BCC CATALOG](#).

## **NOTIFICATION FOR STUDENTS WITH DISABILITIES:**

Brookdale Community College offers reasonable accommodations and/or services to persons with disabilities. Students with disabilities who wish to self-identify must contact the Disabilities Services Office at 732-224-2730 (voice) or 732-842-4211 (TTY) to provide appropriate documentation of the disability, and request specific accommodations or services. If a student qualifies, reasonable accommodations and/or services, which are appropriate for the college level and are recommended in the documentation, can be approved.

## **ADDITIONAL SUPPORT/LABS:**

See the Tutoring Center for information <https://www.brookdalecc.edu/academic-tutoring/tutoring-center/>.

## **MENTAL HEALTH:**

- Mental Health Crisis Support: From a campus phone, dial 5555 or 732-224-2329 from an external line; off-hours calls will be forwarded to BCC police (2222 from a campus phone)
- Psychological Counseling Services: 732-224-2986 (to schedule an appointment during regular hours)

See Instructor addendum for specific information about specific class schedule and assignments, instructor information (hours, office, phone, and email), grading policy, etc.

**Course Outline:** The 4 Units comprising the course are:

UNIT	TITLE
1	Introduction to Problem Solving and Algorithm Design
2	Decision Making
3	Repetition
4	Lists and Arrays

**UNITS:** Each unit is comprised of objectives; specifically:

**Unit Objective:** Specifies what you will be able to do after successfully completing the unit.

**Method of Evaluation:** Tells you the tools you should use for self-evaluation as well as those which will demonstrate mastery of the learning objectives to your instructor.

**Estimated Time to Achieve:** Gives you the approximate length of class time that you should allocate for completion of the unit. The student should expect to spend at least 2 hours of time outside class for each hour in class.

**Learning Objectives:** Indicates the details of each unit.

**Recommended Learning Experiences:** Indicates by what means the unit will be completed. These include class meetings, in-class exercises, and homework assignments.

# **SYLLABUS**

*The syllabus is intended to give student guidance in what may be covered during the semester and will be followed as closely as possible. However, the faculty member reserves the right to modify, supplement, and make changes as the need arises.*