SYLLABUS

Code: COMP126 **Title**: Computer Logic and Design

Institute: STEM **Department**: Computer Science

Course Description: This course provides the student with an introduction to computer systems. The topics include computer components, computer programming logic using design structures, developing algorithms, coding programs, and debugging program code.

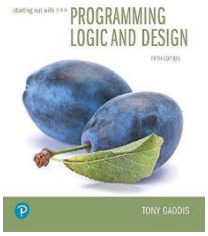
Prerequisites: MATH 021 or passing score in algebra on Foundational Studies test or instructor approval

Co-requisites:

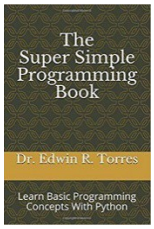
Credits: 3 **Lecture Credits**: 3 **Lab/Studio Hours**:

REQUIRED TEXTBOOK/MATERIALS:

TEXTBOOK:



Starting Out with Programming Logic and Design
5th Edition
Tony Gaddis, Pearson Education, 2019.
ISBN 978-0-134-80115-5 Print
ISBN 978-0-134-80140-8 eText



The Super Simple Programming Book: Learn Basic Programming Concepts With Python
by Edwin Ross Torres

ISBN-13: 978-1718198456
ISBN-10: 1718198450
Available from Amazon

STORAGE:
A portable secondary storage media such as a USB flash drive or cloud storage

SOFTWARE:
The course uses Flowgorithm which is a free download from flowgrithm.org. The Brookdale Computer Science Lab, LAH 103, has Flowgorithm software installed for student use.

ADDITIONAL TIME REQUIREMENTS:

For information on Brookdale's policy on credit hour requirements and outside class student work refer to Academic Credit Hour Policy.

The Computer Science Main Lab in Larrison Hall room 103 (LAH 103) is available for your use. Alice, Flowgorithm and Canvas can be accessed on PCs in that lab. Hours of operation are posted on the LAH 103 door and at the Computer Science department web site:

https://www.brookdalecc.edu/stem-institute/computer-science/computer-science-lab/

COURSE LEARNING OUTCOMES:

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

- ✓ Apply design techniques such as pseudocode and flowcharting to express program logic
- ✓ Implement design solutions using decisions, repetition, methods and arrays
- ✓ Code, test and debug problem solutions in a programming language
- ✓ Obtain an understanding of objects and how to use them in programming applications
- ✓ Apply good programming style and implement modern programming conventions

GRADING STANDARD:

The level of achievement in this course is based on attendance in class, grades received on three (3) tests, and the completion of fourteen (14) homework assignments. Homework assignments must be free of all syntax and logic errors, and must meet all of the requirements specified in the problem statement.

The final grade is determined as follows:

3 Tests worth 100 points each	300 points
14 Homeworks worth 50 points each	700 points
Total	1000 points

Divide Total by 10 for numeric grade, use chart below to determine final grade:

Numeric Grade	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 a test, the test may be taken in LAH 103 with the permission of the instructor. A valid Brookdale ID is required to take the test in LAH 103, the Computer Science Main Lab.

The exam must be taken within 10 days of the original scheduled date and will be graded for full credit. Saturdays and Sundays count as days when calculating the 10-day limit. If not taken within 10 days, a grade of zero will be assigned.

Only one in-class test may be missed. If a student does not have a valid excused absence on the day of a test, any tests taken in LAH 103 will receive a maximum grade of 70.

Late assignments: Assignments are to be submitted on a timely basis throughout the semester. The instructor will assign due dates for the assignments. No more than 25% (four) of the total assignments may be submitted during the last two weeks of the semester.

Incomplete: The course instructor may grant a grade of Incomplete in cases of documented hardship or extenuating circumstances. The student must have completed a significant portion of the course work to qualify.

The student must obtain a signed Incomplete Application form from the instructor on or before the last date that the class is scheduled to meet. If the required work is not completed within 21 days after the semester, excluding official College breaks, the grade of Incomplete (INC) will be changed to an F.

Attendance: Attendance in class 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, and so on).

The student may begin a course of independent study after attending class for the first four sessions and signing an Independent Study Contract with the instructor. Granting independent study is at the complete discretion of the instructor, and may also be revoked at any time by the instructor.

ACADEMIC VIOLATION: The instructor of the course has the authority to give a course grade of **F** 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, or in cloud storage under the individual student's control.

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.

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)

COURSE OUTLINE: This course is comprised of 7 units:

Unit	Title
1	Introduction to Computers and Logic
2	Structures and Programming
	Test #1
3	Decisions
4	Repetition
	Test #2
5	Modules, Functions, and Data Validation
6	Arrays
7	Objects
	Test #3

Each unit has an overall objective, along with specific learning objectives, recommended learning experiences, methods of evaluation, and estimated time to achieve:

UNIT OBJECTIVE: Specifies what you will be able to do after successfully completing the unit.

LEARNING OBJECTIVES: Indicates the details of each unit.

RECOMMENDED LEARNING EXPERIENCE: Indicates by what means the unit objective will be met; includes class meetings, in-class assignments, reading and lab/programming assignments.

METHODS OF EVALUATION: Specifies the tools to be used for self-evaluation, as well as those which will enable your instructor to evaluate your progress.

ESTIMATED TIME TO ACHIEVE: Indicates the approximate time needed to complete the unit.

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.