

SYLLABUS

Code: COMP137

Title: Programming for Engineers

Division: STEM

Department: Computer Science

Course Description: This course is designed for engineering students with no previous high-level programming language experience. The students will learn how to analyze scientific problems and code solutions to these problems using the ANSI/ISO Standard C++ language.

Prerequisites: MATH151 or higher

Corequisites: None

Prerequisites or Corequisites: None

Credits: 3

Lecture Hours: 3

Lab/Studio Hours: 0

REQUIRED TEXTBOOK/MATERIALS:

Text: C++ Programming: From Problem Analysis to Program Design, Eighth Edition
D.S. Malik
Cengage Learning 2018, ISBN: 978-1-337-10208-7

Storage: A portable secondary storage media (USB/flash drive)

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 open Mon.-Sat. Hours are posted on the outside door and on the Computer Science Website.

COURSE LEARNING OUTCOMES:

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

- Analyze, develop, code and execute solutions for a variety of problems using the ANSI/ISO standard C++ programming language.

GRADING STANDARD:

To be considered acceptable, a homework assignment must be free of all syntax and logic errors and must meet all of the requirements outlined by the problem statement and instructor. Homework assignments must also meet documentation and style requirements as outlined by the instructor. Homework requirements are listed on the course addendum. The final grade requirements for the course will be:

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GRADING STANDARD:

Grades are based upon an accumulation of points as follows:

Activity	Maximum Points to Earn
Homework Assignments	600
Quizzes	100
Tests	300
Total Points	1000

To determine the final letter grade for the course, divide the accumulated points by 10:

Numeric Grade	Letter 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

INC Grade: An incomplete (INC) may be assigned at the discretion of the course faculty for students who have extraordinary circumstances of documented hardship or emergency. These students have been actively participating throughout the term and have completed a significant portion of the course in a satisfactory manner but approach the end of the term without completing all assignments. The following process should be followed: The student contacts the faculty with the appropriate documentation. The incomplete contract is completed by the faculty and must be signed by both faculty and student. Students will be notified by email to check their grades and to speak to their counselor about the impact of an incomplete. All course work should be completed by the twenty-first day after the end of the current semester or term, exclusive of official college closings. When a student completes the work satisfactorily, faculty will submit a change of grade. If work is not completed satisfactorily, the INC will be changed to an F by the registrar. Students will be notified by email. For the purpose of calculating academic standing, the INC will be treated as an F. (College Grading System Regulation 5.0013R)

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UNITS(or chapters): Each unit is comprised of objectives; specifically:

Unit Objective: Tells you 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 enable your instructor to evaluate your progress.

Estimated Time to Achieve: Gives you the approximate length of class time that you should allocate for completion of the unit.

Learning Objectives: Give you the details of each unit objective.

Recommended Learning Experiences: Tell you by what means you can complete the unit objective. These include – Class Meetings; your primary source of learning – Text Assignments; read material carefully – Homework Assignments); your implementation of material learned.

COURSE CONTENT:

The 8 units comprising the course are:

<u>UNIT</u>	<u>TITLE</u>
1. Chapter 1:	Introduction to Programming and Basic Elements of C++
2. Chapters 2 & 3:	Input/Output Statements
3. Chapter 4:	Selection Structures
4. Chapter 5:	Repetition Structures
5. Chapter 6:	User-defined Functions
6. Chapter 7:	Strings
7. Chapter 8:	Arrays and Array Applications
8. Chapter 10:	Classes and Data Abstraction

DEPARTMENT POLICIES:

Testing: Students will be allowed to take each test only **one** time. There are **no retests**. If a student has a valid and documented absence on the day of the test, the student must make arrangements with the instructor to make up the test. 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. Only one in class test may be missed. Any other missed test will be assigned a grade of zero.

Resubmitted assignments: In the case that an assignment needs to be corrected, the assignment must be corrected and resubmitted for grading no later than 1 week from the original due date.

Late assignments: Homework assignments are to be submitted on a timely basis. The instructor will assign due dates. Assignments will be reduced by 10 points for each week that they are late. No more than 25 percent of the total homework assignments may be submitted during the last two weeks of the semester.

Attendance: Attendance is required every week. More than three unexcused 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.).

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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.

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)

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.