<u>Code</u>: COMP271 <u>Title</u>: Programming II

<u>Institute</u>: STEM <u>Department</u>: Computer Science

<u>Course Description</u>: This course continues the development of problem solving, logical thinking and object oriented programming techniques using JAVA. Topics and techniques covered include design features from objects, classes and objects as encapsulation tools, inheritance and hierarchies among classes, polymorphism, exception handling and GUI/event driven programming. Assignments give students hands-on experience to design, write, test, debug and edit their program code using an integrated development environment.

Prerequisites: COMP126, COMP171

**Corequisites**:

**Prerequisites or Corequisites:** 

Credits: 3 Lab/Studio Hours: 0

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

### REQUIRED TEXTBOOK/MATERIALS:

Text: Introduction to JAVA™ Programming, Tenth Edition. Daniel Liang Pearson Prentice Hall

Storage: A portable secondary storage media (i.e., memory stick)

**Software:** Java<sup>™</sup> release 8 available as a free download from http://java.com/en

<u>ADDITIONAL TIME REQUIREMENTS</u>: The student should expect to spend at least 2 hours of time outside class for each hour in class. 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:

- Analyze, develop, code, execute and test solutions for a variety of problems using the JAVA programming language.
- Assimilate problem solving and logical thinking techniques

<u>GRADING STANDARD</u>: To be considered acceptable, a lab must be free of all syntax and logic errors and must meet all of the requirements outlined by the problem statement. Labs must also meet documentation and style requirements as outlined by the instructor. The final grade requirements for the course will be:

#### <u>GRADE</u> <u>REQUIREMENTS</u>

A Complete Lab Assignments 1-12
Earn an average test grade of 94 thru 100

A- Complete Lab Assignments 1-12 Earn an average test grade of 90 thru 93

B+ Complete Lab Assignments 1-11

Earn an average test grade of 87 thru 89

B Complete Lab Assignments 1-10

Earn an average test grade of 84 thru 86

B- Complete Lab Assignments 1-10

Earn an average test grade of 80 thru 83

C+ Complete Lab Assignments 1-9

Earn an average test grade of 75 thru 79

C Complete Lab Assignments 1-9

Earn an average test grade of 70 thru 74

D Complete Lab Assignments 1-9

Earn an average test grade of 60 thru 69

A "C" grade is required to advance to the next course.

**F** Earn an average test grade below 60 or fail to successfully complete

labs 1-9.

INC 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)

#### **COURSE CONTENT:**

<u> </u>	
UNIT	TITLE
1.	Classes, Objects and Object Oriented Concepts
2.	Inheritance and Polymorphism
3.	Exception Handling and I/O
4.	GUI and Event Programming
5.	User Interfaces
6.	Binary I/O and Database Programming

UNITS: 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 that 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:** Gives you the details of each unit objective.

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

<u>DEPARTMENT POLICIES</u>: Testing: Students will be allowed to take each test only <u>one</u> time. There are <u>no</u> <u>retests</u>. 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.

**Resubmitted assignments:** In the case that an assignment needs to be corrected, the assignment must be corrected and resubmitted for grading no later than 2 weeks from the original due date.

**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 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.).

**Independent study:** This option is available for students who think they may satisfy the course requirements without the benefit of the classroom experience. All course requirements apply with the exception of attendance. The student may begin a course of independent study after attending class for the first 4 meetings 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.

#### **COLLEGE POLICIES**:

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.

<u>ADDITIONAL SUPPORT/LABS</u>: Academic Tutors are available in the Computer Science Open Lab located in LAH103.

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