CSC 251 Advanced JAVA Programming

COURSE DESCRIPTION:
Prerequisites: CSC 151
Corequisites: None

This course is a continuation of CSC 151 using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.
Course Hours per Week: Class, 2. Lab, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:
Upon completing requirements for this course, the student will be able to:
1. Create an advanced software application using the Java programming language.
2. Debug an advanced software application written in the Java programming language.
3. Test an advanced software application written in the Java programming language.

OUTLINE OF INSTRUCTION:
I. Debugging
II. Recursion
III. Accessing Databases with JDBC
IV. Inheritance
V. Sets and Maps
VI. Threading
VII. Java Library
VIII. Linked Lists
IX. Introduction to Android
X. Input, Variables, and Operations
XI. Creating a Playlist app
XII. Java FX – GUI Programming and Basic Controls

REQUIRED TEXTBOOK AND MATERIAL:
The textbook and other instructional material will be determined by the instructor.