

Programming II

Course # COMP 1072

Credits 6

Pre-requisites and Co-requisites: Fundamentals of Programming

Course Description

This course equips you with the skills necessary to become an IT developer specializing in Java, a requirement in many corporate environments. A fundamental understanding of programming is beneficial for success in this course. Throughout the course, you will master the Java programming language. To reinforce learning, hands-on exercises and labs are provided, allowing you to apply the concepts and techniques taught. The course covers various aspects of Java, including data types, programme flow control, objects, methods, classes, and interfaces. By the end of the course, you will have developed a comprehensive set of skills, preparing you for a career in Java development.

Course Learning Outcomes

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

- Identify core aspects of object-oriented programming and features of the Java language.
- Use Java expressions, operators, branching and looping statements, and write Java code.
- Test code by applying principles of test-driven development using Java's unit testing framework.
- Apply object-oriented programming techniques to building classes, creating objects, and understanding how solutions are packaged in Java.
- Develop programmes that use Java collections and apply core object-oriented programming concepts using classes, polymorphism, and method overloading.
- Explore different methods for opening, reading, and writing to external files, and deal with errors and exceptions.
- Write reusable code that remains type-safe using Java Generics.

Course Assessments and Grading

Item	Weight %
Attendance	14%
Quizzes	16%
Labs	20%
Semester project	20%
Final exam	30%