SECTION HEADING

CSCI 2250: Java Programming

Description

Java Programming provides an overview of the Java programming language and special features of control structures, input/output streams, data structures and abstraction mechanisms. Concepts include creating complete Java classes, derive new classes with effective use of inheritance, and use Java to create applets.

Credits

4

Prerequisite

CSCI 2200

Topics to be Covered

1. Introduction to computers, the internet and web

2. Introduction to Java applications

3. Introduction to Java applets

4. Introduction to Java swing components

5. Control structures: Part 1

6. Control structures: Part 2

7. Methods

8. Arrays

9. Object-based programming

10. Object-oriented programming

11. Strings and characters

12. Graphics and Java2D

Learning Outcomes

1. Manipulate the interactive development environment and/or the JDK to create, edit, compile, debug and save designed application source code and a Java Applet.

2. Describe fundamental data types, arithmetic operators and their order of precedence.

3. Develop algorithms with the notion of top-down, stepwise refinement employing control structures effectively to produce programs that are understandable, debuggable and maintainable over time.

4. Discuss common math methods available from the Java API, create new methods and understand the mechanisms used to pass information between methods.

5. Structure homogeneous data into arrays both single-subscripted and double-subscripted, and investigate various array manipulations; populating, printing, sorting and the passing and searching of arrays.

Credit Details

Lecture: 4

Lab: 0

OJT: 0