CEN414 - Computer Software Engineering I (2 Units: LH 30)

Week 1- Introduction: Comparison of procedure-oriented, event-driven, and object-oriented programming paradigms, Fundamental of object-oriented design. Features of object-oriented programming.

Week 2- JAVA Runtime Environment, JVM, compilers, Interpreters, etc. numerical data, variable, constants, and arithmetic expressions. JAVA Basics: Standard input and output statements. Escape sequences, math class.

Week 3- JAVA API, the if statement, Boolean expression and variables, nested if, the switch statement, iteration statement-the while, and for statements.

Week 4- Array and Collection: Creating an array, accessing array elements passing arrays as parameters, two dimensional arrays, list and maps.

Week 5- Object oriented programming: Introduction, Object oriented concepts, attributes and methods, encapsulation, polymorphism, implementation of classes.

Week 6- Event-Driven Programming and Basic GUI objects: Creating a subclass of Jframe, placing Buttons on the Content pane of a frame. Handling button Events, Jlabel, JTextField, and JTextArea Classes,

Week 7- Menu. Graphics, file, and Application Developments, Application developments.

Week 8- File input and output: file and JFileChooser Objects, Low-level file 1/O, and Object 1/O.

Week 9- Web programming, Java Scripts, Applets.