

Introduction to Computer Programming in Java

CSE 1223

Credit Hours:

3.00

Course Levels:

Undergraduate (1000-5000 level)

Course Components:

Lecture

Lab

Course Description:

Introduction to computer programming and to problem solving techniques using computer programs; programming lab experience.

Prerequisites and Co-requisites:

Prereg: Math 1130, 1140, 1149, 1150, or 1151, or Math Placement Level L.

Course Goals / Objectives:

- Be competent with using basic coding features provided by high-level imperative programming languages
- Be competent with writing computer programs to implement given simple algorithms
- Be familiar with analyzing simple real-life problems and choosing appropriate algorithms for their solution
- Be familiar with using basic data structures such as arrays in simple programs
- Be familiar with using methods and classes to help produce well-structured programs
- Be familiar with reading and programming for API?s
- Be familiar with designing simple text-oriented user interfaces
- Be familiar with working in a window-based computing environment
- Be exposed to the services provided by an operating system
- Be exposed to the virtual machine model of modern computer systems
- Be exposed to data abstraction concepts and other more advanced programming ideas

Course Topics:

- Basic concepts
- Primitive types and expressions; String; basic I/O
- Flow of control and Boolean expressions
- Defining methods
- Arrays
- Basic exception handling and standard Java I/O
- Classes and objects

Designation:

Elective