Software Development using Jav   2023-2024 Catal

[ARCHIVED CATALOG]

SDEV 200 - Software Development using Jav

PREREQUISITES: Demonstrated readiness in STEM MATH - Route 1 AND ([SDEV 140 - Introduction to Software Development](#) OR [CSCI 101 - Computer Science I](#))
PROGRAM: Software Development
CREDIT HOURS MIN: 3
LECTURE HOURS MIN: 2
LAB HOURS MIN: 2
DATE OF LAST REVISION: Fall 2022

Provides a basic understanding of the fundamental concepts involved when using the Java programming development language. The emphasis is on logical program design using a modular approach involving task-oriented program functions. Object-oriented concepts such as methods, attributes, inheritance, exception handling, and polymorphism are utilized. Applications are developed using these concepts and include developing a graphical user interface, selecting forms and controls, assigning properties and writing code. Students are required to demonstrate course objectives through the appropriate Oracle Java certification exam preparation materials.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Identify key concepts of object-oriented programming.
2. Program in Java-based classes, objects, and inheritance.
3. Create JSP and Servlets for Web applications.
4. Create applications for working with Web databases.
5. Understand the design and implementation of classes using inheritance and polymorphism.
6. Understand the use and implementation of interfaces.
7. Understand how to handle user and coding errors using expressions.
8. Understand and work with the implementation of Linked List data structures.
9. Be familiar with the Stack and Queue data structures.
10. Be exposed to the Java Collections interface.
11. Analyze problems and write Java program solutions to those problems.
12. Apply problem solving as it relates to multi-platform computing and the event-driven approach.

COURSE CONTENT: Topical areas of study include -

- Internet HTML and JSP
- Coding Dialog boxes
- Events Toolkit
- Forms Video output
- Object Oriented Servlets
- Debugging Multi-threading
- Coding Dialog boxes
- Forms Video output
- Arrays

CERTIFICATION ASSOCIATED COURSE:

This course has been identified as appropriate preparation for a nationally recognized, vendor certification that closely reflects the objectives of the course. In addition to a textbook, certification preparation materials have also been incorporated into the course for purchase at the bookstore to acclimate students to the manner and rigor of the actual certification exam. Preparation materials will consist of TestOut's LabSim and/or some kind of practice test software such as ExamForce, Transcender or other equally appropriate software and will make up no less than 20% of the final grade.

CERTIFICATION/LICENSURE DISCLAIMER:

Ivy Tech cannot guarantee that any student will pass a certification or licensing exam. Your success will be determined by several factors beyond the instruction you are given in the classroom including your test-taking skills, your willingness to study outside of class, and your satisfactory completion of appropriate practice exams. Certification exam questions are drawn from databases of tens of thousands of possible questions and no two people are asked exactly the same progression of questions. Therefore, a thorough understanding of the subject matter is required. The goal of Ivy Tech in providing a certification exam studies class is to assist you in understanding the material sufficiently to provide a firm foundation for your studies as you prepare for the exam.

[Course Addendum - Syllabus (Click to expand)](#)