

NorthWest Arkansas Community College
Business & Computer Information Systems Division

Computer Information Department Course Outline

PROG 1403 JAVA PROGRAMMING (F, On Demand)

Catalog Description

This course is an introduction to object-oriented programming using JAVA. Topics covered are: control structures, classes, objects, encapsulation, polymorphism, inheritance, File I/O, exception handling, generics, and the Java Collection Framework.

Prerequisites

PROG 1003 Introduction to Programming Logic

Credit hours/Contact hours/Load hours

3/3/3

Target Audience/Transferability

This course is for students seeking training in application development, and is applicable to students seeking self-improvement or an AAS Degree in Computer Information.

Student Learning Outcomes

The student will:

- Develop and design appropriate decision and looping structures, procedures, functions and classes given a task.
- Debug a given program.
- Create a program to read and write a given set of data to/from an external file
- Use the Java Collection Framework to manipulate data and perform a given task
- Design appropriate classes for a given set of related data
- Use JavaDoc to document classes
- Apply object-oriented design techniques of encapsulation, polymorphism, and data abstraction using classes to represent objects.

Topics

- Program Development using an object-oriented approach
- Encapsulation
- Polymorphism
- Classes and Objects
- File IO
- Arithmetic Calculations
- Data manipulation
- Programming Control Sequence, selection, and repetition
- Collections framework

Forms of Assessment

Chapter quizzes or programs
Programming projects
Exams

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