



Course Introduction

This course is an introduction to the Java programming language. Java concepts presented in this course include basic input and output, variables and assignments, branches, loops, arrays, methods, and objects and classes. In addition to these basic programming constructs, the course also emphasizes on disciplined program development, including incremental development, modular development, and testing/debugging.

Course Description

This course is an introduction to the Java programming language. The course includes an introduction of basic computer concepts such as: computers and programs, components of a computer, language history, problem solving, and programming. Java concepts presented in this course include basic input and output, variables and assignments, branches, loops, arrays, methods, objects and classes, input/output streams, and exception handling. In addition to these basic programming constructs, the course also emphasizes on disciplined program development, including incremental development, modular development, and testing/debugging.

This is a 1 semester course consisting of 9 units. Upon successful completion students will receive 0.5 credit towards high school graduation.

Course Overview

- Introduction to Java
- Variables/Assignments
- Decision Making
- Loops
- Arrays
- User-defined Methods
- Objects and Classes
- Input/Output
- GUI

Course Outcomes/Standards

Upon successful completion of the course, students will be able to:

- Analyze and explain the behavior of programs involving fundamental programming constructs.
- Design, implement, test, and debug programs using fundamental programming constructs: basic computation, basic input/output, standard conditional and

iterative control structures, and functions.

- Choose appropriate conditional and iterative control structures for a given programming task.
- Apply the techniques of modular development to break a program into smaller pieces.
- Describe the mechanics of parameter passing.
- Utilize programming tools and environments to develop and test programs.

Required Course Materials

Please access the list of course materials from the OC Online book ordering system and order your materials as soon as possible. Oftentimes, course materials are on back order and you may experience a delay in receiving them, causing students to fall behind in their online coursework. When ordering used or rented materials, be careful that online access codes are also current.

Methods of Evaluation

Evaluation	%	Description
Assignments	40	There will be assignments throughout the semester. These assignments cover concepts taught in the course. For example, students will work on a number of individual programming projects. Projects involve design, implementation, and documentation Java programs.
Quizzes	10	There will be a number of quizzes given within each unit to test knowledge on specific topics.
Tests	15	There will be unit tests given during the semester. These exams will test your knowledge of the unit content.
Final Exam	25	There will be a cumulative final at the end of the course.
Participation	10	Students will have the opportunity to actively participate in class by attending weekly live sessions, listen to a recorded session, complete alternate assignments, or meet the teacher in a voice to voice session. There will be discussions throughout the semester that allow for student interaction.