

# Course Description

## Course Content:

Throughout this course, the students will learn the fundamentals of programming using the programming language Java. They will learn about topics that apply to programming in general, while learning about the Java programming language specifically and why it is different from other programming languages. The students will learn basic skills like use of variables, operations, functions, conditionals, and iterations. They will also learn more advanced topics like the data structures and Object Orientated Programming.

This course is geared towards kids who are new to programming, not having any experience in any other programming language, and towards kids who might have some programming experience but are new to Java.

## Learning Objectives:

- Be proficient in basic topics in Java like:
  - Variables
  - Operations
  - Functions
  - Conditionals
  - Iterations
- Be proficient in the different data types like:
  - string
  - int
  - boolean
  - float
- Know about and be able to use Java data structures like
  - Arrays
  - ArrayLists
  - And others if time permits
- Be familiar with object-oriented programming
- Other advanced topics if time permits
  - Generics
  - Enums

## Characteristics of Class Meetings

The classes will either be lecture or programming practice. During each lecture, there should be questions throughout the lectures to check understanding from the students. After each lecture class, there should be homework and that homework is due before the next class.