

CS120 - Introduction to Programming

This course is designed for students with little or no experience in programming. The major objectives of the course are to guide students to:

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- Think critically to develop solutions to problems using a computational approach.
 - Translate problem solutions to well-structured Java code.
 - Iteratively develop, test, and debug Java programs.
 - Manage complexity in programming solutions by applying appropriate control structures, data types, and writing methods/functions.
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Topic 1. Algorithmic Thinking - Pseudocode (5 Lectures)

Topic 2. Algorithm Implementation – Basic Java and Debugging (3 Lectures)

Topic 3. Algorithm Implementation – Conditionals, Loops, and Debugging (3 Lectures)

Topic 4. Writing Functions, Prompt Engineering (2 Lectures)

Topic 5. The Array Data Structure (4 Lectures)

Topic 6. Input and Output in Java (2 Lectures)

Topic 7. Object Oriented Programming – *Using* Abstract Data Types (3 Lectures)

Topic 8. Object Oriented Programming - *Creating* Abstract Data Types (ADTs) (3 Lectures)