



CPSC 5001: Programming Boot Camp I

Course Description:

Basic principles of programming, algorithmic and procedural problem solving, program design and development. Basic data types, expressions, control structures, functions, arrays, parameter passing and searching. No prior programming experience assumed.

Prerequisites:

None

Course Topics:

- Variables and data types
- Expressions
- Control decisions
- Loops
- I/O
- Functions
- Arrays
- Linear search
- Sorting

Graded Activities:

Lab exercises, programming assignments, and exams

Course Learning Outcomes:

- Use variables and types, including strings, effectively in writing computer programs.
- Apply proper expressions when developing computer programs.
- Use if-else statement and switch statement properly in computer programs.
- Use different loops properly in computer programs.
- Write computer programs using console and file I/O.
- Write a fairly substantial program that uses functions and employs top-down design principles.
- Write computer programs using arrays, search, and sorting.

Additional Notes:

- Develop program using console-based Java compiler
- Class construct introduced out of necessity
- new introduced for arrays
 - Identify need to specify size of array
 - No need to explain memory allocation