COL1000
Introduction to Programming

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Must Know

1. Data/Object/Values, their types, their references (including variables)

2. Operations on int, float, bool, str, list, tuple, dict, range, map, filter, and function data-types
   **, +, *, %, /, //, not, and or, comparison, indexing, iteration, type-conversion, expression
   Conditions and Loops (with nesting). Designing condition and loops (progress towards and reach goal)

3. Functions (for abstraction, modularity, reuse). Designing their specification (parameters and return) and implementation (body). Function scope. Composing functions. Recursion (and termination). Common functions (incl. within-object functions like append, split) and their specification

4. Complete specification, Testing, Debugging. Code traversal/coverage and test-case generation
   Exception raising and handling (incl. assert)

5. File reading, creating, and modifying

6. Algorithmic thinking. Abstraction, decomposition, top-down and step-wise refinement of solution
   Brute-force and Greedy exploration, Divide-and-conquer, Justifying completion and correctness.
   Order-based performance analysis

Useful to Know
Operator Precedence
Basic syntax and runtime errors
Conditional expressions
List comprehension
List slicing
Lambda functions
Command line arguments
Modules
Data and account security and certificates

$COL1000 -$ 1st week :)

All the best :)
It was so nice to interact with you all :)