Syllabus for APC 300: Programming I

NOTE: This syllabus document contains the basic information of this course. The most current syllabus is available in the full course.

Course Description

This course provides a solid foundation in computing by focusing on problem-solving and fundamental programming skills. You will gain skills in computational thinking and learn to implement solutions using a contemporary programming language. This course will emphasize good programming practices such as writing well-tested comprehensible code that is developed incrementally and iteratively. The course will cover essential topics that will include variables, data types and expressions, control structures (conditionals, loops), basic data structures, functions and modular programming, handling input/output, and testing and debugging.

Prerequisite(s)

None

Course Outcomes

By the end of the course, you will be able to do the following:
- Explain the fundamental computing concepts relevant to computational problem-solving.
- Apply the principles of computational thinking and structured programming to solve a given problem.
- Apply your knowledge of the syntax and semantics of a contemporary programming language while writing a program.
- Effectively use programming constructs such as variables, conditionals, loops, data structures, and functions.
- Create programs that handle input and output that involves user interaction as well as data files.
- Write clean, modular, and well-documented code.
- Create programs that are well-tested and correctly perform a given task.
- Analyze code to determine its purpose, behavior, and correctness.

Course Requirements/Components
- Assignments
- Online Discussions

- Quizzes
- Exams

Grading

The following grading scale will be used to evaluate all course requirements and to determine your final grade:

Grade	Percentage Range
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0% - 59%

Evaluation Methods	Percentage of final grade
Assignments	50%
Online Discussions	10%
Quizzes	10%
Exam I	10%
Exam II	10%
Final Exam	10%