**Introduction to C++ Programming**

**Syllabus**

**Description**

This course teaches basic and foundational C++ programming language knowledge for Foundation Year students at BU CELOP by Qi Wang. The course will introduce C++ programming language, the process of developing algorithms to solve problems, and the corresponding process of developing computer programs to express those algorithms.

**Instructor**

Qi Wang (wangqi03@bu.edu)

**Course Resources:**

https://github.com/qiwww/Introduction\_of\_CPP\_BUCELOP

**Meeting Times and Places**

MTWRF 9-12 CELOP classroom(TBD)

**Requirements**

1. Attendance and participation
2. Final project

**Determining the final grade**

attendance 15%

participation 10%

final project 75%

Extra credit: quiz 10%

**Project**

You can work together with group of two or three.

Idea examples:

Tic-Tac-Toe Game

Binary to Decimal and Back Converter

Hang Man

**Readings**

C++ Primer (5th Edition) by S. B. Lippman, J. Lajoie, B. E. Moo

 C++ Primer Plus by Stephen Prata

Accelerated C++: Practical Programming by Example by Andrew Koenig

**Helpful Links**

https://www.w3schools.in/cplusplus-tutorial/

**Collaboration Policy**

• You are strongly encouraged to collaborate with one another in studying the textbook and the lecture materials.

• The work that you submit must be entirely your own, which you must complete without looking at other people's work. This includes the work of other students in the class, the work of people from outside the class, and solutions found online. If you are having questions, I encourage you to ask questions in class or email the instructor

• You must not permit other students to look at your work.

**Schedule (tentative)**

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| --- | --- | --- |
| Week | Dates | Topics |
| 1 | 04/23 | Course Overview  Introduction of C++  Programming in C++ |
|  | 04/24 | Conditional Execution |
|  | 04/25 | Functions |
|  | 04/26 | Recursion |
|  | 04/27 | Strings |
| 2 | 04/30 | Arrays |
|  | 05/01 | Pointers |
|  | 05/02 | Class |
|  | 05/03 | Struct |
|  | 05/04 | Inheritance |
| 3 | 05/07 | Project Idea |
|  | 05/08 | Working on Project |
|  | 05/09 | Working on Project |
|  | 05/10 | Working on Project |
|  | 05/11 | Final Project Presentation |