Textbooks: How to Program in C++ by Paul Deitel, Harvey Deitel, 9th Edition

About This Course: "How to Program in C++", the essential part is "how to program", C++ is a means to carry out the “how”, and a financial related project concludes this class. Hardware and software, how do they work out hand in hand to carry out the computing power that serves people nowadays? This class starts from the fundamental of software development. Then, it goes deeper and deeper in how to master software development, and concludes the study via a financial related project.

General Description: C++ is a long live computer language for reasons. It introduces many useful idioms and skills that help people to organize and enhance their logical thinkings, and that allow people to communicate with computer flawlessly and effectively. Functions, data structures, object oriented features assist users to think structurally and help users to develop problem-solving skills. Top-down design and structured programming are the basics to know and to practice. Computer language is a language to communicate with computer hardware. Computer algorithm is a solution to a real-life problem that can be implemented via a computer language. For instance, sorting or searching data are computer algorithms. Software development is to provide solutions or answers to real-life problems by using computer algorithms.

Challenges: 1. familiar with C++ language syntax, grammar, idioms. 2. logical thinking that can be realized and implemented into software

Suggestions: 1. form study group, two or three students a group. 2. study with purposes.

Homeworks, In-Class Assignments, Projects, Quizzes: Those are means to assist and help students to study and to ensure the passed-over knowledge hasn't been compromised. From those exercises, students will be able to know and use what they have learned, and students should submit all the assignments on time. Follow the class pace closely, this is crucial for students to be successful in this class.