

Introduction to Programming and Computer Science

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2 Weeks
May 11, 2015 – May 22, 2015
Mondays | Tuesdays | Fridays
4pm - 6 pm

Description

This course will be a basic but intense introduction to programming and computer science. This course assumes 0 experience with programming and will teach from the basics up. The focus will be on creating a clear understanding of the basics of computer science and create a group of students that are well versed in the basics and have the proper tools to create and solve computer applications and to create beautiful, robust code.

Details

Software Required: Sublime 2.0 (Free Online), Python 2.7 (Free Online)

Language: Python

Hardware Required: Computer (Windows or Mac)

Class: Broken up into two 1-hour blocks with the first block being an engaging lecture and the second hour is applying new information to solve problems.

Grading: Quizzes will be given out after each lecture on previous lectures material, and then answers will be reviewed after with an open Q/A.

Topics to Be Covered

1. Types, Literals, Variables, Operators, and Expressions
2. Program Structure and Control Flow
3. Functions
4. Conditionals
5. Loops
6. Top-Down Design
7. Style
8. Testing and Debugging
9. Graphics
10. Strings
11. 1d Lists and Tuples
12. 2d Lists
13. Efficiency