

## **Introduction to Programming in Python**

### **Course description**

Introduction to Programming in Python is intended for high school students with little or no programming experience. This course will focus on python programming for algorithms and data analytics. After completing the course, students should have a solid foundation of Python programming to explore research projects, and further topics in data science. The course also paves the road to an AP Computer Science.

The topics include variables, operator/conditions, loop, lists, string, dictionaries, files, functions, numerical modules, and visualization.

This is a one-semester course in English. It requires students to complete programming problem sets.

### **Prerequisites**

Students who plan to take this course should have a solid grasp of Algebra II, an interest in logic and programming, and self-motivation in learning Python.

### **Class information**

- ❖ Tuition \$120 (Fall semester, 2017), payable to Xilin Northwest Chinese School
- ❖ Time 12:00-12:50 PM Sunday, Room 232.
- ❖ Class capacity:15

### **Textbook**

No textbook is required. The class provides materials and homework through Google group.

### **Instructor**

Changchuan Yin, Ph.D., University of Illinois at Chicago. For the past year, Mr. Yin has volunteered as the teacher of an online Python seminar of 25 topics, which has been commended by students and parents. Mr. Yin's continued research in data analytics employs Python programming, and gives him insight into how programming relates to wider world problems, particularly in biology. Samples of programs utilized in his research projects can be found at <http://genebow.com>. Contact: cyinbox@gmail.com