

Course Description

Course Content:

Throughout this Python course, the students will be learning from the very basics of the Python programming language to very advanced topics in Python. Topics include: Basic Syntax of Python, Variables/Operations, defining and using functions, conditional/booleans, iteration, different data structures, reading and writing files, object-oriented programming, and graphics in Python. Students will also get an intro in HTML and learn how to combine Python and HTML so that you can use Python to parse through information from HTML pages. They will learn about networked programs and web services. In addition, during the course, we will be practicing UIL programming problems and other types of practice that will strengthen the students' programming skills as well as their problem-solving skills.

Learning Objectives:

- Be proficient in basic topics in Python like:
 - Variables
 - Operations
 - Functions
 - Conditionals
 - Iterations
- Know about and be able to use Python data structures like
 - Lists
 - Dictionaries
 - Tuples
- Reading data from files and writing data to files
- Be familiar with object-oriented programming
- Be introduced to graphics in Python
- Know basic HTML
- Be able to use combine HTML and Python so that you can parse HTML using Python to get information from a website

Characteristics of Class Meetings

The classes will either be lecture or programming practice. During each lecture, there should be questions throughout the lectures to check understanding from the students. After each lecture class, there should be homework and that homework is due before next class.