

# Python - Introduction to Programming Concepts and Methodologies (ITIS-130)



## WASTC 2017 Faculty Development Weeks

**Where:** Cabrillo College, Aptos California

**When:** June 19 – 23, 2017

### Session Overview:

Learn how to use Python as the dedicated language for the development of an introductory programming course that will meet the requirements of the C-ID ITIS 130. You will learn the tips and tricks on how to program with Python and provide your CS and IT/CIS students with an introduction to the fundamental concepts and models of application development including the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for event-driven programs.

### Topics/Activities/Outline

Python vs C++ and Java

- Main conceptual differences

Python editors and compilers

- Python 2.7 vs Python 3

- Install and run on your PC or Macbook

- Configuring your chosen editor

- Configuring your OS for programming

Basic syntax, comparisons to C++ and Java

Python libraries

Range limits? No!

Precision issues? Yes – same as C++ and Java!

Writing interactive programs

- Console applications

Looping and branching

Arrays, lists, and collections

Objects

Functions

Exercises, exercises, exercises!

This workshop content aligns to the California IT Model Curriculum course ITIS-130 " Introduction to Programming Concepts and Methodologies "

**Instructor:**



Dr. Robert Burns is a professor of Computer Science at Diablo Valley College in Pleasant Hill, California, where he teaches first and second year computer programming students, preparing them for further study in computer science, computer engineering, and related fields. Professor Burns designed the Programming Concepts series for first year programming students at the college. In addition to teaching, Professor Burns is a contract programmer and web programmer with continuous experience dating back to the 1970s

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