COURSE SYLLABUS

Programming for Beginners – using Python

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OVERVIEW

Skill Level	:	Beginner
Suitable for	:	Anyone with minimal or no programming experience wanting to learn how to work with Python.
Duration	:	4 Days

This training course covers the basics of Python development. The course is geared towards participants with no programming background. It includes hands-on exercises to reinforce the lessons covered.

This training course was developed and is taught by some of the Philippines' well-known and respected Python software engineers, and uses the format trusted by some of the best companies in the Philippines.

LEARNING OUTCOMES

- To learn basic Python programming
- To learn basic Python libraries used for database, web development, and Internet API access

COURSE OUTLINE

Part 1

- Visual Studio Code overview
- Data Types
- Function: print
- Math operators: + - / *
- String operator +
- Function: input
- Functions: int, str
- Function: format

- Optional parameters
- String functions, upper, lower, swapcase, title, format
- Boolean
- Boolean operators: and, or, not
- If statement
- conditional operators: > < >= <= == !=
- else
- elif
- Lists
- list element assignment (list[] = element)
- list functions: append, remove, len, extend, index
- for-loops.
- Code blocks
- list comprehension
- range function
- list slicing.
- in operator.
- list function: sort, reverse

- multi-line string

- Unpacking
- tuple
- string functions: count, split, join.
- file function: open()
- with statement
- random library
  - shuffle, choice, randint
  - help() and dir()
  - from import
- making a function
  - optional parameter (remind with input())
  - named parameter
- importing function from other files
- while, continue, break
- introduce help() and python manual
- turtle/logo programming

Part 2

- enumerate(), zip()
- Set
- Dictionary
  - items(), keys(), get(), values()
- None datatype
- Error handling
- string.punctuation, digits, ascii_letters
- f-strings

- datetime library
- Basic Object Oriented Programming
  - constructor
  - inheritance
  - dunder functions
- dir introspection
- breakpoint()
- Function data type

Part 3

- Libraries
- Pretty Print
- Argument Parser
- Basic file format: csv

- Basic database: sqlite
- Basic web development: flask
- Internet API: requests

O&B

ACADEMY

Engineering for the Real World

Enquiries

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