



INTRODUCTION TO PYTHON

COURSE OVERVIEW

In this Python training course, students learn to program in Python. The course is aimed at students new to the language who may or may not have experience with other programming languages. This Python course is taught using Python 3; however, differences between Python 2 and Python 3 are noted.

PREREQUISITE

We recommend that attendees of this course have some prior programming knowledge (not required)

WHAT YOU'LL LEARN

- How Python works and what it is good for
- Understand Python's place in the world of programming languages
- Work with and manipulate strings in Python
- Perform math operations with Python
- Work with Python sequences: lists, arrays, dictionaries, and set
- Collect user input and output results
- Flow control processing in Python
- Write to and read from files using Python
- Write functions in Python
- Handle exceptions in Python
- Work with dates and times in Python

CONTACT US

- 🌐 www.sysiit.ca
- ☎ 905-629-3000
- ✉ info@sysintelligence.com
- 🏠 5004 Timberlea Blvd, Unit 214-216,
Mississauga ON, L4W 2S6

COURSE OVERVIEW

Module 1: Python Basics

- Running Python
- Hello, World!
- Literals
- Python Comments
- Data Types
- Variables
- Writing a Python Module
- print() Function
- Named Arguments
- Collecting User Input
- Getting Help

Module 2: Functions and Modules

- Defining Functions
- Variable Scope
- Global Variables
- Function Parameters
- Returning Values
- Importing Modules

Module 3: Math

- Arithmetic Operators
- Modulus and Floor Division
- Assignment Operators
- Built-in Math Functions
- The math Module
- The random Module
- Seeding

Module 4: Python Strings

- Quotation Marks and Special Characters
- String Indexing
- Slicing Strings
- Concatenation and Repetition
- Common String Methods
- String Formatting
- Built-in String Functions

Module 5: Iterables- Sequences, Dictionaries, and Sets

- Definitions
- Sequences
- Unpacking Sequences
- Dictionaries
- The len() Function
- Sets
- *args and **kwargs

Module 6: Flow Control

- Conditional Statements
- The is and is not Operators
- Python's Ternary Operator
- Loops in Python
- The enumerate() Function
- Generators
- List Comprehensions

Module 7: File Processing

- Opening Files
- The os and os.path modules

Module 8: Exception Handling

- Wildcard except Clauses
- Getting Information on exceptions
- The else Clause
- The finally Clause
- Using Exceptions for Flow control
- Exception Hierarchy

Module 9: Dates and Times

- Understanding Time
- The time Module
- The datetime Module

Module 10: Running Python Scripts from the Command Line

- The sys Module
- sys.argv