**Python 3 Percipio Course**

[**Getting Started**](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07)

11 Videos1h 5m 0s

1. [An Overview of Python](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f44488e1-1bcc-11e7-b15b-0242c0a80b07)
2. [The Philosophy of Python](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4452521-1bcc-11e7-b15b-0242c0a80b07)
3. [Python 2 vs Python 3](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4452523-1bcc-11e7-b15b-0242c0a80b07)
4. [Installing Python 3 on Windows](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4452525-1bcc-11e7-b15b-0242c0a80b07)
5. [Installing Python 3 on Linux](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4452527-1bcc-11e7-b15b-0242c0a80b07)
6. [Python IDEs](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4454c30-1bcc-11e7-b15b-0242c0a80b07)
7. [Whitespace in Python](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4454c32-1bcc-11e7-b15b-0242c0a80b07)
8. [Read, Evaluate, Print, Loop](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4454c34-1bcc-11e7-b15b-0242c0a80b07)
9. [Hello World](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4454c36-1bcc-11e7-b15b-0242c0a80b07)
10. [User Input](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4454c38-1bcc-11e7-b15b-0242c0a80b07)
11. [Modules and Imports](https://optum.percipio.com/courses/f44488e0-1bcc-11e7-b15b-0242c0a80b07/videos/f4454c3a-1bcc-11e7-b15b-0242c0a80b07)

[**Data & Sequence Types**](https://optum.percipio.com/courses/f4454c3b-1bcc-11e7-b15b-0242c0a80b07)

10 Videos1h 13m 29s

1. The int Type in Python
2. The float Type in Python
3. Basic Math Functions in Python
4. The bool Type in Python
5. The str Type in Python
6. The bytes Type in Python
7. The bytearray Type in Python
8. The list Type in Python
9. The tuple Type in Python
10. Slicing in Python

[**Collections, Mapping, & Looping**](https://optum.percipio.com/courses/f4459a51-1bcc-11e7-b15b-0242c0a80b07)

7 Videos57m 32s

1. The range Type and Function in Python
2. The set Type in Python
3. The dict Type in Python
4. The While Loop in Python
5. The For Loop in Python
6. The if Statement in Python
7. Exercise: Name Reverser

[**Modules & Functions**](https://optum.percipio.com/courses/f445c161-1bcc-11e7-b15b-0242c0a80b07)

5 Videos35m 22s

1. Importing a Module at the REPL
2. Defining a Function
3. Python Scripts, Modules, and Programs
4. Running a Module as a Script
5. Command Line Arguments

[**Classes**](https://optum.percipio.com/courses/f445c16b-1bcc-11e7-b15b-0242c0a80b07)

9 Videos1h 19m 3s

1. Classes and Types
2. Class Definition
3. Class Initialization
4. Class Instance Methods
5. Static Methods
6. Inheritance
7. Properties
8. Properties with Inheritance
9. Operator Overloading

[**Working with Files**](https://optum.percipio.com/courses/f445e87c-1bcc-11e7-b15b-0242c0a80b07)

9 Videos53m 14s

1. Docstrings
2. Code Comments
3. Documentation Best Practice
4. Reading Text Files
5. Writing Data
6. Writing Large Files
7. Reading Binary Data
8. Writing Binary Data
9. Exercise: Creating a Custom Data Type

[**Comprehensions**](https://optum.percipio.com/courses/f4460f8d-1bcc-11e7-b15b-0242c0a80b07)

5 Videos39m 17s

1. List Comprehensions
2. Nested Comprehensions
3. The zip() Function in Comprehensions
4. Set Comprehensions
5. Dictionary Comprehensions

[**Iterables & Generators**](https://optum.percipio.com/courses/934b6e47-14c0-11e7-92d9-0242c0a80b07)

11 Videos1h 29m 28s

1. Basic Iteration
2. The map() Function
3. The filter() Function
4. The functools.reduce() Function
5. Implementing an Iterator
6. Implement an Iterable Using \_\_getItem\_\_
7. Implement an Iterable Using Extended iter()
8. Simple Generators
9. Lazy Generators
10. Recursive Generators
11. Exercise: Creating an Iterable Data Type

[**Exceptions**](https://optum.percipio.com/courses/934cf4e8-14c0-11e7-92d9-0242c0a80b07)

8 Videos1h 25m 54s

1. Catching All Exceptions
2. Catching Specific Exception Classes
3. The Exception Hierarchy
4. Exception Payloads
5. Creating New Exceptions
6. Traceback Objects
7. Assertions
8. Chaining Exceptions

[**Automation Programming**](https://optum.percipio.com/courses/457dfc50-73a6-11e8-82d9-bf3deb09ab23)

15 Videos1h 37m 21s

1. Identifying How to Use Python to Automate
2. Installing Python
3. Managing Packages with PIP Package Manager
4. Using Variables and Operators
5. Working with Functions and Loops
6. Using Lists, Tuples, and Dictionaries
7. Creating and Running a Python Script
8. Performing File Input and Output
9. Manipulating CSV Files
10. Processing JSON Files
11. Parsing XML Files
12. Retrieving Data from a Website
13. Managing Cron Jobs within Python
14. Creating Zipped Backups with Python
15. Exercise: Using Python for Automation