COURSE SYLLABUS

# Python Programming Bootcamp (Self-Paced)

Start learning Python from the ground up by mastering core concepts like variables, data types, loops, and functions. Apply your skills to real-world problems using object-oriented programming, and build a GitHub portfolio that showcases your practical Python experience to employers.

For more information, visit https://www.creativelive.com/classes/python-programming-bootcamp-self-paced



support@creativelive.com • 302-217-6585

## Course Outline

### Python software environment

- Terminal commands
- Jupyter Notebook
- Variables
- Built-in functions in Python
- Data types: strings, integers, floats, lists
- Definite loops: For loops
- Practical Exercises

### Logical programming

- Creating functions in Python
- The behavior of data structures
- Data types: tuples
- If, Elif, Else statements
- Indefinite loops: While loops
- Indexing and slicing
- Practical Exercises

### Python built in programming

- Data types: dictionaries
- Reading from a text file
- Writing to a text file
- Appending to a text file

- Analyzing a text file's content
- Practical Exercises

### Computer science fundamentals

- Big-O notation
- Binary search
- Bubble Sort
- Insertion sort
- How to write efficient code
- Practical Exercises

### Application development - Project based assessment

- Review and Q&A
- Intro to Object Oriented Programming
- Working on a project
- Git and GitHub