COURSE SYLLABUS

Python Programming Bootcamp

Learn Python programming from scratch. Master variables, data types, loops, and functions, and tackle real-world challenges with object-oriented programming. Create a GitHub portfolio to impress employers and master practical Python skills.

Group classes in Live Online and onsite training is available for this course. For more information, email onsite@graduateschool.edu or visit: https://sdfm.graduateschool.edu/courses/python-bootcamp

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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