Omnilearn

2025

Python Curriculum

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Our Company

❖ **Global Excellence**
Leading digital career enhancement across the globe.

❖ **Rigorous Training**
Dive into our programs for comprehensive and customised training, personalised project support and career counselling.

❖ **Empowering Millions**
Transforming lives with practical knowledge for professional success.

❖ **Globally Recognized Expertise**
Join us for industry-recognized excellence in the digital era.

Course Description

Master Python programming with this hands-on course designed for beginners and intermediate learners. Learn how to write efficient code, automate tasks, analyze data, and build powerful applications using Python. Covering topics from basic syntax to advanced libraries like Pandas, NumPy, and Matplotlib, this course equips you with the skills to excel in data science, software development, automation, and more.

Key Points Learned

➢ Start from Python basics and progress to advanced topics like object-oriented programming, file handling, and working with libraries such as Pandas and NumPy.

➢ Apply your learning through real-world projects and exercises in data analysis, automation, and web development to build practical Python skills

➢ Gain proficiency in using Python for data manipulation, analysis, and visualization, leveraging powerful tools like Matplotlib and Seaborn

➢ Learn how to automate repetitive tasks, write scripts for data processing, and optimize workflows to improve efficiency

➢ Explore how Python is used in various fields such as data science, software development, machine learning, and web development to solve real-life problems.

Course Curriculum

Introduction to Python Programming
- Understanding Python's syntax and basic constructs.
- Writing and executing simple Python scripts.

Data Structures and Algorithms
- Exploring lists, tuples, dictionaries, and sets.
- Implementing algorithms for data manipulation.

Functions and Modules
- Defining and using functions to organize code.
- Creating and importing modules for code reuse.

Object-Oriented Programming (OOP)
- Understanding classes and objects.
- Implementing inheritance, polymorphism, and encapsulation.

File Handling
- Reading from and writing to files.
- Managing file operations and exceptions

Course Curriculum

Advanced Python Concepts
- Exploring decorators, generators, and context managers.
- Understanding regular expressions and their applications.

Introduction to Data Science with Python
- Utilizing libraries like NumPy and Pandas for data analysis.
- Visualizing data using Matplotlib and Seaborn.

Web Development with Python
- Building web applications using Flask.
- Understanding RESTful APIs and integrating them into applications.

Database Connectivity
- Connecting Python applications to databases using SQLAlchemy.
- Performing CRUD operations within Python scripts.

Project Work and Case Studies
- Applying learned concepts to real-world projects.
- Collaborating on case studies to solve practical problems.

Career Benefits

- ➢ Learn versatile programming skills to develop applications, automate tasks, and analyze data, making you valuable across industries.
- ➢ Gain expertise in data science, machine learning, and web development, enhancing your career opportunities in tech-driven roles.
- ➢ Improve problem-solving and coding proficiency, critical for roles in software development, analytics, and automation.
- ➢ Master Python libraries like Pandas, NumPy, and Matplotlib to handle complex data and create impactful visualizations.
- ➢ Boost your employability with Python, a highly in-demand skill used in fields like finance, healthcare, and artificial intelligence.

Omnilearn Advantage Unlocked

➢ Tailored course material to suit the learner's experience and knowledge level.
➢ Real-world projects to apply concepts and enhance learning.
➢ Access to downloadable resources for future reference.
➢ Practice exams that mimic real test conditions to boost exam readiness.
➢ Industry-recognized certificate awarded upon program completion.
➢ Round-the-clock support for all learner inquiries.
➢ Year-long access to recorded lessons for review and learning at your convenience.

Contact Us

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