COURSE SYLLABUS

Python Data Science & Machine Learning Bootcamp (Self-Paced)

Master Python for data analysis, machine learning, and automation. Build predictive models, create dynamic dashboards, and unleash the power of data visualization. Launch your career in data science and Python engineering, equipped with Python, NumPy, Pandas, and Matplotlib.

> Group classes (Live Online) and onsite training are available for this course. For more information, email corporate@nobledesktop.com or visit: https://www.careercenters.com/certificates/python-data-science-machine-learning-bootcamp-online



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Course Outline

This package includes these courses

- Python Machine Learning Bootcamp (30 Hours)
- Python for Data Science Course Online (Self-Paced) (30 Hours)
- Python for Automation Course Online (Self-Paced) (6 Hours)
- Python Data Visualization & Interactive Dashboards Online (Self-Paced) (24 Hours)

Choose one free elective. Contact us after registration to select your dates.

- Python for AI: Create AI Apps with Flask & OpenAI (Self-Paced)
- Python Machine Learning Advanced (Self-Paced)

Python Machine Learning Bootcamp

- How to clean and balance your data using the Pandas library
- Applying machine learning algorithms such as logistic regression and random forest using the scikit-learn library
- Choosing good features to use as input for your algorithms
- Properly splitting data into training, test and cross-validation sets
- Important theoretical concepts like overfitting, variance and bias
- Evaluating the performance of your machine learning models

Python for Data Science Course Online (Self-Paced)

Unlock the power of Python for data-driven decision-making as you master Python programming fundamentals and dive into data analysis. Acquire essential skills to clean and manipulate data, create insightful visualizations, and perform statistical

analysis, all through hands-on projects with real-world datasets.

- Handle different types of data such as integers, floats, and strings
- Control the flow of your programs with conditional statements, loops, and functions
- Reuse and simplify code with object-oriented programming
- Analyze tabular data with NumPy and Pandas
- Create graphs and visualizations with Matplotlib
- Make predictions with linear regression, using scikit-learn

Python for Automation Course Online (Self-Paced)

Learn how to use Python to extract data from websites and write loops for processing large numbers of pages. This course covers HTML and CSS, Python fundamentals, web scraping techniques, data storage, and scheduling.

- Learn Python syntax and how to construct programs and scripts
- Write scripts that automate manual tasks and update Excel files automatically
- Identify and correct common errors in your code
- Schedule your programs to run automatically on a regular basis
- Apply web scraping techniques through real-life exercises and examples

Python Data Visualization & Interactive Dashboards Online (Self-Paced)

Learn to gather, manipulate, and analyze real-life data in this course, where you'll gain hands-on experience with Python's NumPy and pandas libraries. Develop your data visualization skills using Matplotlib, Seaborn, Plotly, and Dash Enterprise, and complete real-life projects that can be deployed online.

- Plan, gather, and manipulate data from different sources to present a data story
- Find data stories through exploratory data analysis
- Manipulate data with NumPy and pandas.
- Use advanced Python visualization libraries Plotly and Dash
- Build a dashboard and apply the rules of effective dashboard design to create professional data science solutions
- Go live with your project and deploy the dashboard on a live server