COURSE SYLLABUS

Data Science Certificate

Learn Python, SQL, automation, and machine learning to become a Data Scientist. Gain Python programming, data analysis, SQL querying, and predictive modeling skills. Perfect for beginners, this program prepares you for entry-level data science and Python engineering roles. Unlock high-paying job opportunities in the field of data science.

> Group classes in NYC and onsite training is available for this course. For more information, email corporate@nobledesktop.com or visit: https://www.nobledesktop.com/certificates/data-science

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Course Outline

This package includes these courses

- Python for Data Science Bootcamp (30 Hours)
- SQL Bootcamp (18 Hours)
- Python for Automation (6 Hours)
- Python Data Visualization & Interactive Dashboards (30 Hours)
- Python Machine Learning Bootcamp (30 Hours)

Choose a free course below:

AI for Python: Create AI Apps with Flask & OpenAI

Python for Data Science Bootcamp

- 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

SQL Bootcamp

- Explore information stored in a database (tables, columns, rows, etc.) using the graphical interface of DBeaver (a popular free database app)
- Write SQL queries to retrieve data from tables in a database
- Combine information from multiple tables with JOIN statements
- Filter data, group it, and sort it to extract the specific info you need

- Advanced techniques like Subqueries, String Functions, and IF-Else logic with CASE
- How to use Views and Functions with parameters instead of directly querying tables

Python for Automation

- Scrape (extract) text and images from websites
- Schedule Python scripts to run automatically
- Automate browser interactions, reporting, and messaging

Python Data Visualization & Interactive Dashboards

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

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