COURSE SYLLABUS

Python 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 onsite@graduateschool.edu or visit: https://www.graduateschool.edu/certificates/python-programming-immersive-online



support@graduateschool.edu •
(888) 744-4723

Course Outline

This package includes these courses

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

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

- Python for AI (Self-Paced)
- Python Machine Learning Advanced (Self-Paced)

Python for Data Science Bootcamp (Self-Paced)

- 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 Machine Learning Bootcamp (Self-Paced)

- 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 Automation (Self-Paced)

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

Python Data Visualization & Interactive Dashboards (Self-Paced)

- 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