PYTHON FOR DATA SCIENCE CERTIFICATE

Program Description

Data science is one of today's most in-demand functions — and Python is an essential skill in any data scientist's toolbox. In this program, you will master the ability to analyze and visualize data in meaningful ways using Python to help solve complex business problems. Working with tools such as Jupyter Notebooks, NumPy, and Pandas, you will have the opportunity to analyze real-world datasets to identify patterns and relationships in data. You will gain experience using both built-in and custom-built data types to create expressive and computationally robust data science projects. Finally, you will build predictive machine learning models using Python and scikit-learn.

To be successful in this program, it is recommended that students have some experience in analytics and programming, specifically with creating visualizations in spreadsheets.

The amount of time you spend on these courses will depend on your prior experience. Since these courses are designed for someone with limited exposure to programming, you can expect them to start off with the foundations and then quickly move into more advanced and complex topics.

Key Takeaways

- Visualize data with Python
- Write custom functions and data classes in Python that can be stored for reuse
- Use key elements of Python control flow and iteration
- Use Jupyter Notebooks to integrate data analysis, visualization, and documentation
- Manipulate data arrays and tables using NumPy and Pandas
- Filter, integrate, and prepare data for analysis
- Perform statistical data analysis and visualization
- Explore datasets with machine learning

What You'll Earn

- Python for Data Science Certificate from Cornell Center for Advanced Computing
- 105 Professional Development Hours (7 CEUs)

Who Should Enroll

- Data analysts and business analysts
- Database managers
- Technical and systems analysts
- Programmers interested in data science
- Marketers
- Business managers

Total Investment

- 5 months to complete all the courses

How to Enroll

For more information on how to enroll, please visit Python for Data Science Certificate (https://ecornell.cornell.edu/certificates/data-science-analytics/python-for-data-science/).

Courses

Code	Title	Hours
eCornell CAC101	Constructing Expressions in Python	0
eCornell CAC102	Writing Custom Python Functions, Classes, and Workflows	0
eCornell CAC103	Developing Data Science Applications	0
eCornell CAC104	Creating Data Arrays and Tables in Python	0
eCornell CAC105	Organizing Data with Python	0
eCornell CAC106	Analyzing and Visualizing Data with Python	0
eCornell CAC107	Building Predictive Machine Learning Models	0