

PYTHON PROGRAMMING CERTIFICATE

Program Description

Python is one of today's most popular and fast-growing programming languages, with applications in data science, software development, machine learning, and AI.

This certificate program follows a rigorous, user-centric approach to software engineering with Python. Its goal is not simply to teach you how to use Python, but rather to understand the core principles of Python and develop the ability to become a proficient Python programmer and software developer. You will design, code, test, visualize, analyze, and debug Python functions and programs. You will also be provided a robust set of tools to assist you in your coursework.

Additionally, the program includes two project-based courses that provide the opportunity to take the concepts you learn in programming and apply them by designing Python-based solutions to real-world business problems.

Ultimately, you'll come away with not only the technical skills to grow in the field of computer science but the problem-solving ability and creativity that companies are increasingly looking for.

You will be most successful in this program if you are comfortable with pre-calculus, basic algebra, trying new things, and troubleshooting with your computer. You will also be expected to download and install Anaconda and Atom in the first course.

Key Takeaways

- Master the concepts of object-oriented programming in Python
- Use procedural Python statements such as assignments, functional calls, and control structures
- Organize your code so that you can work in teams
- Design, code, and test Python functions that meet requirements
- Visualize, analyze, and debug running Python programs
- Develop and deploy self-contained Python packages
- Professionally test and verify your code

What You'll Earn

- Python Programming Certificate from Cornell Computing and Information Science Department
- 144 Professional Development Hours (14.4 CEUs)

Who Should Enroll

- Current and aspiring programmers, software developers and engineers
- Current and aspiring web developers
- Computer and data scientists
- Scientists interested in learning programming

Total Investment

- 4.5 months to complete all the courses

How to Enroll

For more information on how to enroll, please visit Python Programming Certificate (<https://ecornell.cornell.edu/certificates/technology/python-programming/>).

Courses

Code	Title	Hours
eCornell CIS551	Python Fundamentals	0
eCornell CIS552	User-Defined Functions in Python	0
eCornell CIS553	Developing a Currency Converter	0
eCornell CIS554	Controlling Program Flow	0
eCornell CIS555	Mastering Data Structures	0
eCornell CIS556	Auditing Datasets	0