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**Learning Style: On Demand**

**Technology: Cisco**

**Difficulty: Beginner**

**Course Duration: 40 Hours**

# Programming for Network Engineers (PRNE) v2.0 - On Demand



## About this course:

Programming for Network Engineers (PRNE) self-paced course is designed to equip you with fundamental skills in Python programming. You will learn to use Python basics to create useful and practical scripts with Netmiko to retrieve data

and configure network devices. Upon completion of this course, you should have a basic understanding of Python, including the knowledge to create, apply, and troubleshoot simple network automation scripts.

## Course Objective:

- Create a Python script
- Describe data types commonly used in Python coding
- Describe Python strings and their use cases
- Describe Python loops, conditionals, operators, and their purposes and use cases
- Describe Python classes, methods, functions, namespaces, and scopes
- Describe the options for Python data manipulation and storage
- Describe Python modules and packages, their uses, and their benefits
- Explain how to manipulate user input in Python
- Describe error and exception management in Python
- Describe Python code debugging methods

## Audience:

- Network administrators
- Network engineers with little or no programming or Python experience
- Network managers
- Systems engineers

## Prerequisite:

Before taking this course, you should have:

- Familiarity with Cisco IOS-XE software or other Cisco network device configuration and operation skills
- Basic network management knowledge
- Cisco CCNA certification or equivalent knowledge

The following Cisco course may help you meet these prerequisites:

- Implementing and Administering Cisco Solutions (CCNA)

## Course Outline:

- **Create a Python script**
- **Describe data types commonly used in Python coding**
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- **Describe Python classes, methods, functions, namespaces, and scopes**
- **Describe the options for Python data manipulation and storage**
- **Describe Python modules and packages, their uses, and their benefits**

- **Explain how to manipulate user input in Python**
- **Describe error and exception management in Python**
- **Describe Python code debugging methods**