

## **Developing With Cisco Network - On Demand (NPDEV 4.0)**

**Modality: Self-Paced Learning**

**Duration: 40 Hours**

**SATV Value:**

**CLC: 8 Units**

**NATU:**

**SUBSCRIPTION: No**

### **About the course:**

Increase your knowledge of the products and technologies of Cisco with e-learning offerings in contributions from Cisco and Cisco's approved learning partners. The courses of E-learning targets around an assortment of Cisco technologies to set you up for the certification exams of Cisco, and to pick up the product information of Cisco. The e-learning contributions are made to be engaging and interactive with students who like self-study.

Some Self-paced courses of Cisco give access to the exercises of the hands-on virtual lab, providing you the chance to practice troubleshooting and configuration on the real platforms of Cisco.

### **Course Objective:**

- Networking Fundamentals
- Network Programming Tools and Techniques
- Cisco ACI
- Cisco APIC-EM Module
- Device Programmability
- Open Daylight SDN Controller
- Explore YANG Models
- Explore and Configure Device using CLI
- Use NETCONF Via SSH
- Use YANG Tools
- Use client Python Library
- Use the yang Tool for Sample XML
- Use RESTCONF with Cisco IOS XE Software
- Use YDK
- Run Native Python Scripts on Cisco NX-OS
- Use the Documentation Pages
- Use Postman for Cisco APIC Fabric Discovery
- Use Cisco NX-API on Cisco NX-OS
- Configure Cisco NX-OS Device Using NETCONF and CLI
- Configure Network Device Discovery Job
- Work with Device Inventory
- Use Locations and Tags
- Create Cisco APIC-EM Internal Users and Examine User Roles

- Use Python and Cisco APIC REST API
- Use Cobra with Tenants and Related MOs
- Use Arya to Generate Cobra Code
- Access the Cisco APIC-EM Web User Interface
- Use the Cisco APIC Web GUI
- Explore the ACI Toolkit
- Use the Python unique Library with Cisco APIC-EM
- Use Python with Cisco APIC-EM
- Examine the YANG UI Application
- Install ODL Distribution and Use Karaf to Manage Features
- Examine the Feature Manager Application
- Use Browser Developer Tools to Examine REST APIs
- Use the Swagger API Pages
- Use ODL with Cisco IOS XR Software
- Explore Nodes DLUX User Interface Application
- Use Postman for Discovery
- Discovery Experiment with NETCONF
- Examine Toaster Service Sample Application
- Examine the ODL Inventory Model
- Run Your Own ODL Distribution

## Course Outline:

### Course Introduction

- Networking Fundamentals
- Device Programmability
- Cisco ACI
- Cisco APIC-EM Module
- OpenDaylight SDN Controller
- Network Programming Tools and Techniques

### ?Labs:

- Lab 1: Explore and Configure Device using CLI
- Lab 2: Explore YANG Models
- Lab 3: Use YANG Tools
- Lab 4: Use NETCONF Via SSH
- Lab 5: Use the pyang Tool for Sample XML
- Lab 6: Use the ncclient Python Library
- Lab 7: Use YDK
- Lab 8: Use RESTCONF with Cisco IOS XE Software
- Lab 9: Use the Documentation Pages
- Lab 10: Run Native Python Scripts on Cisco NX-OS
- Lab 11: Use Cisco NX-API on Cisco NX-OS
- Lab 12: Configure Cisco NX-OS Device Using NETCONF and CLI
- Lab 13: Use Cisco APIC Web GUI

- Lab 14: Explore the ACI Toolkit
- Lab 15: Use Postman for Cisco APIC Fabric Discovery
- Lab 16: Use Python and Cisco APIC REST API
- Lab 17: Use Cobra with Tenants and Related MOs
- Lab 18: Use Arya to Generate Cobra Code
- Lab 19: Access the Cisco APIC-EM Web User Interface
- Lab 20: Configure Network Device Discovery Job
- Lab 21: Work with Device Inventory
- Lab 22: Use Locations and Tags
- Lab 23: Create Cisco APIC-EM Internal Users and Examine User Roles
- Lab 24: Use Browser Developer Tools to Examine REST APIs
- Lab 25: Use the Swagger API Pages
- Lab 26: Use Postman for Discovery
- Lab 27: Use Python with Cisco APIC-EM
- Lab 28: Use the Python uniq Library with Cisco APIC-EM
- Lab 29: Install ODL Distribution and Use Karaf to Manage Features
- Lab 30: Examine the Feature Manager Application
- Lab 31: Examine the YANG UI Application
- Lab Discovery 33: Experiment with NETCONF
- Lab 34: Use ODL with Cisco IOS XR Software
- Lab 35: Explore Nodes DLUX User Interface Application
- Lab 36: Examine Toaster Service Sample Application
- Lab 37: Examine ODL Inventory Model
- Lab 38: Run Your Own ODL Distribution