CSAU - INTRODUCING AUTOMATION FOR CISCO SOLUTIONS V1.2

Course Code: 100521

Gain a broad understanding of network automation skills on Cisco solutions.

The *CSAU - Introducing Automation for Cisco Solutions v1.2* course gives you a broad overview of network automation skills on Cisco solutions. Through a combination of lecture and hands-on labs, you will learn the fundamentals of automation such as working on model-driven programmability solutions with Representational State Transfer Configuration Protocol (RESTCONF) and Network Configuration Protocol (NETCONF) protocols. The course also covers data formats and types, including Extensible Markup Language (XML), JavaScript Object Notation (JSON), Yaml Ain't Markup Language (YAML), and Yet Another Next Generation (YANG), and their value in network automation, along with DevOps tools such as Ansible and Git.

This course does not lead directly to a certification exam, but it does cover foundational knowledge that can help you prepare for several Cisco professional-level automation courses and exams.

This course is eligible for 16 Continuing Education Credits (ILT & ELT Modality).

Who Needs to Attend

This course is designed primarily for customer engineers and systems engineers in the following job roles:

- Automation architect
- Automation engineer
- Consulting systems engineer
- DevOps engineer
- Network administrator
- Network architect
- Network consulting engineer
- Network design engineer
- Network engineer
- Network operator
- Network reliability engineer
- Sales engineer

- Site reliability engineer
- Systems engineer
- Technical solutions architect

This course would also be useful for network manager job roles such as:

- Application developer
- Collaboration developer
- Collaboration solutions architect
- IT director
- Mobile developer
- Network Operations Center (NOC) manager
- Software architect
- Web developer

Prerequisites

Before taking this course, you should have the following knowledge and skills:

- Routing and switching including Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), and basic configuration features such as interfaces, Simple Network Management Protocol (SNMP), and static routes
- Fundamentals of Python data structures and programming constructs such as loops, conditionals, and classes, or the equivalent of 3–6 months of experience writing Python scripts
- Basic Linux commands for navigating the file system and executing scripts
- Knowledge of working with text editors

CSAU - INTRODUCING AUTOMATION FOR CISCO SOLUTIONS V1.2

Course Code: 100521

VIRTUAL CLASSROOM LIVE	$2,000 USD	3 Day

Jul 21 - 23, 2025 | 8:30 AM - 4:30 PM EDT

CSAU - INTRODUCING AUTOMATION FOR CISCO SOLUTIONS V1.2

Course Code: 100521

ON-DEMAND	$250 USD

On-Demand Outline

- Examining Network Management and Operations
- Exploring Software Development Methodologies
- Using Python for Network Automation
- Describing NetDevOps: DevOps for Networking
- Managing Automation Development Environments
- Introducing HTTP Network APIs
- Reviewing Data Formats and Data Encoding
- Using Python Requests to Automate HTTP-Based APIs
- Exploring YANG
- Using YANG Tools
- Automating Model-Driven APIs with Python
- Introducing Ansible for Network Automation
- Templating Configurations with Jinja2

On-Demand Labs

- Use Network Automation Scripts
- Enforce Python Fundamentals on the Interactive Interpreter
- Automate Networks with Netmiko
- Troubleshoot Python Scripts
- Use the Git Version-Control System and Collaborate on an Internal Project
- Manage Merge Conflicts
- Build Reproduceable Automation Environments
- Use HTTP-Based APIs with Postman
- Explore YAML and JSON Data
- Consume HTTP-Based APIs with Python Requests
- Explore YANG Tools

- Explore NETCONF with Python
- Explore RESTCONF with Python
- Configure Network Devices with Ansible
- Collect Network Data with Ansible
- Build and Deploy Configurations with Ansible

CSAU - INTRODUCING AUTOMATION FOR CISCO SOLUTIONS V1.2

Course Code: 100521

PRIVATE GROUP TRAINING	3 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.