



## Campus Access Fundamentals (AR-CAF)

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### Course Description

This course teaches you the fundamental knowledge, skills, and practical experience required to configure and manage modern, open standards-based networking solutions using Aruba's wired, wireless, security and management technologies.

This course consists of approximately 60% lecture and 40% hands-on lab exercises to help you learn how to implement and validate small-to-medium enterprise network solutions. This 5-day course prepares you for the Aruba Certified Associate – Campus Access exam.

### Course Duration:

5 days

### Prerequisites:

It is recommended that candidates have foundational networking experience or attend Aruba's Essentials eLearning series to glean knowledge on Aruba's Campus Access design solution.

### Objectives:

After you successfully complete this course, expect to be able to:

- Explain Networking Fundamentals
- Install and configure devices running the ArubaOS-CX Network Operating System
- Describe and configure VLANs
- Explain, describe and configure Spanning Tree Protocol
- Understand when to use VRRP and how to configure it
- Explain and configure Link Aggregation
- Understand and configure IP Routing
- Understand and configure OSPFv2 – Single Area
- Describe and configure Switch Stacking using VSF
- Describe Aruba ESP platform and product portfolio
- Perform AP onboarding
- Explain how Aruba's wireless networking solutions meet customers' requirements
- Explain fundamental WLAN technologies, RF concepts, and 802.11 Standards
- Recognize and explain Radio Frequency Bands and channels, and the standards used to regulate them
- Describe the concept of radio frequency coverage and interference and successful implementation and diagnosis of WLAN systems
- Identify and differentiate antenna technology options to ensure optimal coverage in various deployment scenarios
- Describe RF power technology including, signal strength, how it is measured and why it is critical in designing wireless networks
- Control secure access to the WLAN using Aruba Firewall Policies and Roles
- Perform network monitoring functions and troubleshooting

## Course Outline:

- Networking Fundamentals
  - Defines networking, LAN, WAN and their components
  - Explains OSI model & encapsulation
  - Discusses different types of physical media
  - Compares unicast, multicast, and broadcast
  - Explains TCP/IP stack
  - Discusses different types of networking devices
- Switching Fundamentals
  - Explains how to connect to and access a switch
  - Describes initial switch setup
  - Describes how to and configure VLANs, tagging, and IP addressing
  - Explains how to use LLDP and ICMP for network discovery and diagnosis
  - Explains how to configure link aggregation to improve performance/resiliency
- Basic IP Setup
  - Discusses Inter-VLAN routing
  - Explains DHCP relay
  - Discusses static IP routing
  - Explains how to configure single-area OSPF
  - Network Redundancy
  - Discusses Spanning Tree
  - Explains VRRP and VSX
- VSF
  - Describes VSF
  - Explains how to configure VSF
  - Describes Auto-VSF
  - Explains VSF MAD
- Introduction to Aruba Solutions
  - Discusses ESP
  - Introduces Aruba switching products
  - Introduces Aruba WLAN portfolio
  - Introduces to Aruba Central
  - Introduces to Aruba ClearPass
- Central for Device Management
  - Explains how to perform device onboarding
  - Describes how to create Central Groups
  - Describes UI config mode
  - Describes template config mode
  - Describes Central licensing
- Device Profiling and AP onboarding
  - Describes the use of device profiling
  - Describes LLDP and MAC profiling
  - Explains how to connect AP to Aruba Central
  - Explains how to perform initial AP setup

- WLAN Fundamentals
  - Describe the fundamentals of 802.11, RF frequencies and channels
  - Explain RF Patterns and coverage including SNR
  - Roaming Standards and QOS requirements
  - Describe aspects of RF design
  - Explains how to configure WLANs
- Implementing Secure WLANs
  - Explain AAA
  - Describe 802.1X authentication
  - Explain how to configure secure WLANs
  - Discuss roles and access rules
- Guest Access
  - Describe guest access
  - Explain how to setup captive portal authentication
  - Describe how to configure guest WLANs
- WLAN Security
  - Describe WLAN security
  - Explain certificates
  - Describe cloud authentication
- Monitoring and Maintenance
  - Explains the use Aruba Central monitoring capabilities
  - Describe how to identify LED status
  - Explain how to perform firmware upgrades
  - Describe how to enable SNMP on devices
  - Describe AI Insights
  - Describe Alerts & Reports
  - Explain UXI
- Troubleshooting
  - Describe how to perform password recovery and factory reset procedures
  - Explain Central connectivity troubleshooting
  - Describe how to enable spectrum analysis
  - Explore Central Troubleshooting tools

## Who Should Attend

The ideal candidate has 1+ years of experience with networking, vendor agnostic understanding of basic network protocols.

Under the direction of a Professional or Expert, can apply the configuration and verify the status of a campus network.