

# Get the Edge - An Introduction to Aruba Networking Solutions (AR-ACNT)

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## Course Description

This course provides an easy entry point to the world of computer networking. It is geared towards students who are new to technology and/or college students.

This introductory course covers the different aspects of campus access both wireless and wired methodologies. After completion of the course, the candidate will be ready to take the Aruba Certified Network Technician (ACNT) exam

## Course Duration:

3 days

## Prerequisites:

No prerequisites.

## Objectives:

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

- Perform Numerical Conversions
- Analyze Packets
- Do initial switch setup
- Configure VLANs and 802.1Q
- Configure IPv4 Routing
- Deploy a WLAN
- Monitor a WLAN and wireless client

## Course Outline:

- Networking Fundamentals
  - Basic Network Concepts
  - What is a Computing Network?
  - Network Classifications
  - What is a Protocol?
  - OSI Reference Model
  - Encapsulation/ Layer Headers/ PDUs
  - Physical media, cables
  - Binary Numerical System
  - Hexadecimal Numerical System
- TCP-IP
  - Overview
  - TCP/IP Stack
  - Ethernet, Ethernet Frame
  - IPv4 header

- TCP Header – Three-way handshake, sequence numbers, port numbers
- UDP Header
- Networking Devices – Switches, Routers, Multilayer Switches, APs,
- Firewalls and Servers
- Networking Services – DHCP, DNS, HTTP, Telnet and SSH, FTP
- Basic Networking with Aruba Solutions
  - Network Design
  - Hierarchical Models
  - Aruba Switching Portfolio
  - Modern Switching Requirements
  - AOS-CX features, commands
- VLANs
  - Collision Domain
  - Broadcast Domain
  - Virtual LAN
  - Access Ports
  - 802.1Q & Trunk Ports
  - Forwarding Tables (MAC and ARP)
  - Frame delivery
- IPv4 Routing
  - IPv4 Addressing
  - Network Mask
  - Routing Introduction
  - Default Gateway
  - Inter-VLAN Routing
  - IP Routing Table
  - Packet Delivery
- WLAN Introduction
  - Networking Comparison: Wired vs Wireless
  - WLAN Organizations
  - Radio Frequency Communications (Antenna types, 802.11 Standards, and Sources of interference)
  - Data Rates
- WLAN Theory
  - Terminology
  - Roaming
  - WLAN Architecture
  - Coverage
  - WLAN Security

## Who Should Attend

Ideal candidates are those with little to no experience with computer networking.