

**NS3EDU.**

Learn Today  Earn Tomorrow

# CCNP Wireless

## COURSE OUTLINE

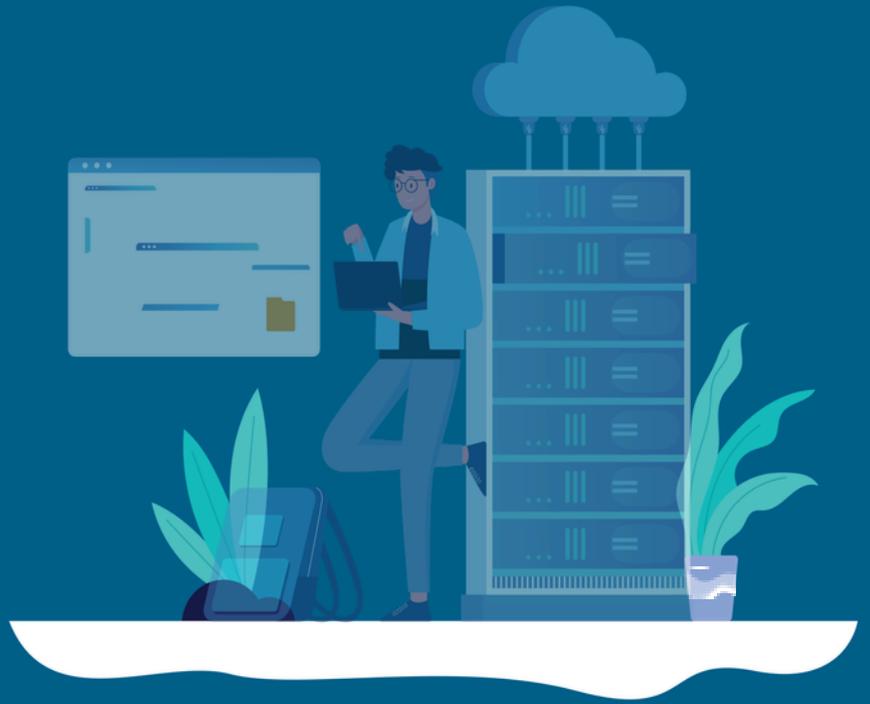
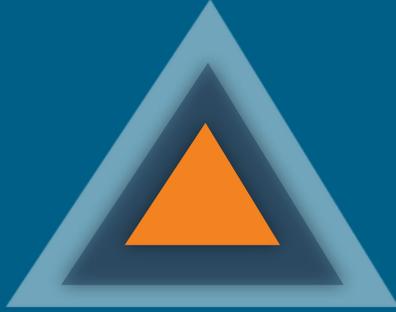


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# NS3EDU: BRIDGE YOUR IT DREAMS TO REALITY



## EMPOWERING CAREER THROUGH KNOWLEDGE

Looking to make it big in the world of IT networking? Look no further than NS3Edu! We help beginners learn the ropes & experienced pros master new skills. Come join us and build your dream career!

## MISSION

The mission of NS3Edu is to empower our candidates with in-depth knowledge of IT fundamentals along with real-time industry experience and also take 100% responsibility for the placement by making them Industry fit.

## CERTIFICATES



## VISION

In-depth knowledge + hands-on experience + analytical thinking = placement



Learning



Opportunity



Experience



Career



# ROADMAP OF JOB

# PLACEMENT

Confused  
in **Different**  
Career Options



**Qualifies-** Job  
Placement

**Career Diagnosis**  
System



Opportunities for  
**Job Placement**

**Counselling & Demo**  
sessions



Screening by **Corporate HR**  
& **Tech Team**

Student **Enrollment &**  
**Induction** session



2 Week **Technical**  
Task Training

Course Kick off  
**(Live Classes)**



**NS3 Tech** Industrial  
Exposure

Access to Recorded  
Sessions,  
**E book & Lab Manual**



**Course Completion**

# WHAT MAKES US UNIQUE?

## USP'S

Industry Demand &  
Customized Courses



# Course Outline

## LEVEL 1: Wireless Core Fundamentals (Intermediate Level).

### Part 1: Wireless Networking Foundations

- Wireless Networking Overview
- RF Fundamentals (Frequency, Wavelength, dB, dBm)
- 2.4 GHz, 5 GHz & 6 GHz Bands
- Channels & Channel Width
- Noise, Interference & SNR

### Part 2: IEEE 802.11 Standards

- 802.11a/b/g
- 802.11n (Wi-Fi 4)
- 802.11ac (Wi-Fi 5)
- 802.11ax (Wi-Fi 6 / 6E)
- MIMO, MU-MIMO, OFDMA

### Part 3: Wireless Components & Architecture

- Access Points (AP Types)
- Wireless LAN Controllers (WLC)
- CAPWAP Protocol
- Lightweight vs Autonomous AP
- Cisco Wireless Architectures

## **Part 4: Wireless LAN Design Basics**

- Coverage & Capacity Planning
- Site Survey Fundamentals
- AP Placement Strategies
- Roaming Concepts
- High Density WLAN Design

# **LEVEL 2: Enterprise Wireless Design & Implementation (Professional Level)**

## **Part 5: Cisco Wireless LAN Controllers**

- Cisco WLC Overview
- WLC Deployment Models
- GUI & CLI Configuration
- AP Join Process
- WLAN Configuration

## **Part 6: Advanced Wireless Design (ENWLSD)**

- Enterprise Wireless Design Principles
- RF Design for Large Networks
- Outdoor & Indoor Wireless Design
- Mobility & Roaming Design
- QoS for Wireless Networks

## **Part 7: Wireless Security**

- Wireless Security Fundamentals
- WPA2, WPA3
- 802.1X Authentication
- EAP Methods
- Guest Access Design
- Rogue AP Detection

## **Part 8: Wireless Integration with Wired Network**

- Wireless VLAN Integration
- Inter-VLAN Routing
- QoS Mapping (Wired ↔ Wireless)
- Multicast over Wireless

## **LEVEL 3: Advanced Wireless Operations & Automation (Expert Level).**

## **Part 9: Wireless Troubleshooting (ENWLSI)**

- Wireless Troubleshooting Methodology
- RF Issues & Interference
- Client Connectivity Issues
- Roaming Problems
- Performance & Latency Issues

## **Part 10: Monitoring & Optimization**

- Wireless Monitoring Tools
- Cisco DNA Center (Wireless Overview)
- Performance Metrics
- Wireless Analytics

## **Part 11: Automation & Programmability**

- Wireless Automation Concepts
- Cisco APIs (Intro)
- Cisco DNA Center Automation
- Python Basics for Wireless

## **Part 12: High Availability & Scalability**

- Wireless Redundancy Models
- WLC High Availability
- Large-Scale WLAN Design
- Failover & Recovery

## **Part 13: Real-World Wireless Projects**

- Enterprise WLAN Design Project
- Secure Corporate Wi-Fi Setup
- Guest Wi-Fi Implementation
- High-Density Campus Wireless
- Wireless Troubleshooting Scenarios

## **Part 14: Career & Certification Preparation**

- CCNP Wireless Certification Path
- ENCOR + ENWLSD / ENWLSI Overview

- Wireless Network Engineer Roles
- Interview Questions & Scenarios
- Resume & Lab Portfolio Guidance
- Mock Interviews

# OUR PLACEMENT PARTNERS



## YOUR FUTURE OUR RESPONSIBILITY



Free consulting



Get trained with certified trainers



24X7 Lab access



Employability enhancement program



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NETWORK SECURITY



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CLOUD SERVICE



FULL STACK DEVELOPMENT



DIGITAL MARKETING



DATA SCIENCE



AI ML LEARNING