

DUXBURY CERTIFIED WIRELESS ENGINEER

Wireless Networking

● Objective

To introduce students to the fundamentals of Wireless technology.

● Class Summary

This course will offer an instructor-led classroom experience with supporting lab exercises.

● Class Content

Introduction to Wireless

- ✎ IEEE 802.11 a/b/g
- ✎ Other IEEE 802.11 standards including 802.11, 802.11e/802.11w

Wireless Architecture

- ✎ Infrared
- ✎ Narrowband
- ✎ Spread Spectrum Technology
- ✎ OFDM

Wireless Topologies

- ✎ Ad-Hoc
- ✎ Wireless Network Infrastructure
- ✎ Point-to-Point
- ✎ Point-to-Multipoint

Wireless Network Traffic

- ✎ Signal to Noise Ratio
- ✎ CSMA/CA
- ✎ MAC-Level Acknowledgements
- ✎ RTS/CTS Protocol

- ✎ The "Hidden Station" Problem
- ✎ IntraBSS Relay

Roaming and Association

- ✎ Define Cells, Roaming and Association
- ✎ Coverage Areas
- ✎ Understanding Roaming and Association
- ✎ AP Density
- ✎ TX Power Control
- ✎ Load balancing

Security

- ✎ SSID
- ✎ Closed System
- ✎ WEP
- ✎ WPA
- ✎ Rogue AP detection
- ✎ MAC Authentication
- ✎ 802.1 x Authentication

Indoor Site Survey

- ✎ Preparation for a Site Survey
- ✎ Equipment needed for a Site Survey
- ✎ Planning the Site survey
- ✎ Coverage Areas
- ✎ Performing the Site Survey

Outdoor Site Survey

- ✎ Line-of-sight
- ✎ Line-of-sight - Direct
- ✎ Line-of-sight - Indirect
- ✎ Line-of-sight - Preferred
- ✎ Antenna Alignment
- ✎ Lab work
- ✎ Exam

● Who Should Attend

Network Administrators, Pre-Sales Engineers, Sales staff, Post-Sales Engineers, Consultants and small business owners.

● Prerequisites

A familiarity with computer concepts and skills, Basic Networking skills, Ethernet, TCP/IP and Basic Wireless Networking terminology.

Course Duration

1 day

Course Cost

R999.00 Excl. VAT per person

Contact

JHB: 011 351 9800
CTN: 021 423 7115
www.duxbury.co.za

