IN723 Lesson Plan

# Details

## Course: IN723 Advanced Networking

## Lesson Title: Introduction / Revision Lesson 1

# Objectives

The students will:

* Perform initial course administration
* Review essential materials covered in IN515 & IN615 including:
* OSI Model
* PDU
* Core, distribution, access
* Collision domain, Duplex
* Broadcast domain
* Packet end to end, Frame per hop
* ARP
* Switch function
* Unicast, Multicast, Broadcast
* Router function
* IPv4 FLSM, VLSM
* Vlans
* Trunking, DTP
* Inter Vlan routing, legacy, roast
* Dynamic vs static routing
* Static routing
* Summarisation
* Basic device config
* ACLs

Complete 10 Labs (below) within first 2 weeks and be introduced to the first assignment.

# Resources

Cisco Product / Technology guides

<http://www.cisco.com/cisco/web/psa/general.html?mode=tech>

2960 Switch software configuration guide

<http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_55_se/configuration/guide/scg_2960.html>

Cisco IOS 15.1(4)M References / Guides

<http://www.cisco.com/c/en/us/support/ios-nx-os-software/ios-software-release-15-1-4-m/model.html>

# Readings

IP addressing & subnetting for new users <http://www.cisco.com/c/en/us/support/docs/ip/routing-information-protocol-rip/13788-3.html>

Intro subnetting

<http://www.lynda.com/iP-tutorials/Introduction-subnetting-IPv4-addresses/184143/187397-4.html>?

Finding Network ID

<http://www.lynda.com/iP-tutorials/How-find-my-network-ID/184143/187402-4.html>?

VLSM

<http://www.lynda.com/iP-tutorials/Variable-length-subnet-masks-VLSM/184143/187401-4.html>

# Lesson Content / Labs

* Presentation

\IN723 Topic1 Intro Revision\IN723\_Lesson1\_2\_revision.pptx

* Labs

4.1.4.6 Basic Router settings

6.3.3.7 VLSM

3.2.2.5 Vlans & Trunking

5.1.3.7 802.1q inter vlan routing

6.2.2.5 Static routing

6.4.2.5 Summary routes

7.3.2.4 RIPv2 & RIPng

7.2.2.4 RIP vs EIGRP metrics (PT)

9.2.1.10 Standard ACL (PT)

**9.3.2.10 Extended ACL (PT) - recommended**