

IT7003      Networking and Data Communications 2



**Course Aim** To provide students with skills in building LANs, VLANs and WANs using networking technology. Students will configure local networks and manage switches. LAN and VLAN building are achieved using the protocols VTP, STP, and RSTP. Students obtain skills in Wifi networks and access point configuration for Wifi networks. Students are introduced to WAN protocols and build a WLAN using PPP and Frame Relay.

**Short Title** Networking 2  
**Faculty** EDICT  
**Credits** 15  
**Pre-requisites** IT6003 or ITB5003  
**Co-requisites** None  
**Anti-requisites** None

**Version** 5  
**Effective From** February 2018  
**Level** 7  
**Student Contact hrs** 90  
**Self-directed hrs** 60  
**Other directed hrs** 0  
**Total learning hrs** 150

Learning Outcomes	On successful completion of this course, students will be able to:	NQF Sub-strand
1	Describe the protocols that allow a VLAN to be implemented	Theoretical Understanding
2	Implement and troubleshoot the VLAN Trunking Protocol (VTP), Inter-VLAN Routing and Spanning Tree Protocol (STP).	Practical Application of knowledge
3	Describe the protocols that allow a WAN to be implemented	Theoretical Understanding
4	Plan and configure LAN and WAN network connections and differentiate between WAN and LAN equipment and protocols	Practical Application of knowledge
5	Design a network security policy by using Access Control Lists (ACLs) and IP addressing services to implement this policy	Generic, Problem Solving and Analytical Skills