

	Programme: DIPLOMA IN COMPUTER TECHNOLOGY	Course Code: CPT113		Credit Hours: 3 hours/week
	Subject/Course: INTRODUCTION TO INTERNET			Theoretical: 1 hours/week
	Year: One Semester: One	Pre-requisite:		Practical: 2 hours /week

General Objectives: On completion of this course the student should be able to:

- 1.0 Differentiate between Internet and the World Wide Web (WWW).
- 2.0 Know the concept of Internet Protocol Address, Domain Name and Domain Name Server.
- 3.0 Know the various techniques of accessing the Internet.
- 4.0 Understand the types of Access Denial Attacks to the Internet and Malware Attack.
- 5.0 Understand Malware Attacks on WWW contents.
- 6.0 Understand Basic Internet Security

	Department/ Programme: COMPUTER SCIENCE – (ND)	Course Code: CPT113		Credit Hours: 3 hours/week		
	Subject/Course: INTRODUCTION TO INTERNET			Theoretical: 1 hours/week		
	Year: One Semester: One	Pre-requisite:		Practical: 2 hours /week		
	Theoretical Content			Practical Content		
	General Objective 1: Differentiate between the Internet and the World Wide Web					
Week/s	Specific Learning Outcomes	Teacher’s activities	Resources	Specific Learning Outcomes	Teacher’s activities	Resources
1	Be able to: 1.1 Know the History of Internet 1.2 Define Internet 1.3 Define the World Wide Web	Explain historical background of the Internet. Explain the concept of the Internet. Difference between the <ul style="list-style-type: none"> • Internet and internet • Intranet and Extranet 	White Board PC loaded with Power point and connected OHP	Know how a simple computer network system is used to simulate the Internet. See how the Internet is different from the WWW. See how hyperlink is implemented.	Connect computers in a network and use the configuration to explain how interconnection is done.	Networked PC’s connected to the Internet
2	1.4 Differentiate between the Internet and the World Wide Web (WWW) 1.5 Know Point of Presence-PoP and Network Access Point-NAPs	Explain the concept the World Wide Web. Define PoP and NAP, and how they connect to form the Internet			Illustrate how hyperlink is done using WWW	
3	1.6 Know how hyperlink technique functions	Show how hyperlink function				
	General Objective 2: Know the Concept of Internet Protocol (IP) Address, Domain Name and Domain Name Server					
4	Be able to understand: 2.1 The difference between an IP-Address and Domain name. 2.2 Domain Name Categories and Levels	Know the difference between IP address and Domain name. Domain name categorization and level.	White Board PC loaded with Power point and connected OHP	See how the IP address and the Domain name complement each other. Identify and calculate IP addresses	Relate IP addresses and Domain names. Show how IP addresses are identified based on composition and subnets and nodes are obtained from a particular	Ditto
5	2.2 IP Address Classification, calculation of IP Addresses	IP address classification		See the difference between Domain name categories, levels and difference.		
6	2.4 Difference between a Relative and Absolute Domain Name	Know the difference between Domain Name System and Domain Name Server.				

	2.5 Differentiate between the Domain Name System and Domain Name Server				network IP address	
Week/s	General Objective 3: Know the various Techniques used in Accessing Internet					
7	Be able to know: 3.1 The difference between an Internet Service Provider and an Online Service Provider-OSPs. 3.2 The various Internet accessing techniques; <ul style="list-style-type: none"> Dial-up direct Dial-up through proxy server 	Differentiate between the two service providers and state their applications. Detail description of the various techniques used in accessing the Internet.	White Board PC loaded with Power point and connected to OHP	Identify <ul style="list-style-type: none"> Institutions that serve as ISP. Devices that are used to connect an ISP. See how a proxy server operates Use the Internet to access various OSPs (Google.com) Know how NAT is implemented through an ISP access point.	Use the existing ISP connection of the institution to explain NAT and OSP. Use Mobile wireless connection to demonstrate Dial-up connection.	
8	<ul style="list-style-type: none"> Integrated Service Digital Network-ISDN Asymmetrical Digital Subscriber Line – ADSL 	Detail description of the various techniques used in accessing the Internet.				
9	<ul style="list-style-type: none"> Network Address Translation—NAT 					
Week/s	General Objective 4: Understand the Types of Access Denial Attacks to the Internet and Malware Attack					
10	Be able to understand: 4.1 The three kinds of Access Denial to the attack Internet.	Define packet sniffing. Define and explain Denial of Service (DoS) attack.	White Board. PC loaded with PowerPoint and connected to the Internet	See how packet sniffing is done Identify different types of malware using known anti-malware programme.	Find a software that performs packet sniffing and illustrate how data monitoring is done.	Networked PC's connected to the Internet.
11	<ul style="list-style-type: none"> SYN Attack Spoofing Attack Smurf Attack 	Explain the three techniques used in implementing DoS attacks.				
12	4.2 The types of malware that are infected through the Internet. <ul style="list-style-type: none"> Virus Trojans Worm Spyware 	Define and explain how the different malware function.	OHP		Use existing anti-malware to identify malware in a computer.	
Week/s	General Objective 5: Understand Basic Internet Security					
	Be able to: 5.1 Define Internet Security	Explain the importance of		Understand how login is utilized in	Demonstrate how Internet	Ditto

13	5.2 Benefits of Internet Security	Internet Security and states its benefits		Internet security	security is implemented in an Intranet system
14	5.3 Understand the functions of the following; <ul style="list-style-type: none"> • Password and Username <ul style="list-style-type: none"> ○ Triple A's Authenticity, Authorisation and Accounting 	Define and explain technique and how it is used in Internet security. Explain the AAA in login.		Understand how firewall are configured/programme	Show how firewall programming is performed.
15	<ul style="list-style-type: none"> • Firewall (software and hardware) configuration 				

Assessment: Give details of assignments to be used:
Coursework/ Assignments 20%; Course test 10%; Practical 10%; Examination 60%

Type of Assessment	Purpose and Nature of Assessment (COM 122)	Weighting (%)
Examination	Final Examination (written) to assess knowledge and understanding	60
Test	At least 1 progress test for feed back.	10
Practical	To be assessed by the teacher	10
Assignment	To be assessed by the teacher	20
Total		100

Recommended Textbooks & References: