Mahatma Gandhi University Kottayam

Programme	
Course Name	**INTRODUCTION TO COMPUTER NETWORK**
Type of Course	MDC
Course Code	MG2MDCCFS102
Course Level	**100 -199**
Course Summary	Computer Networks course provides an introduction to computer networks, with a special focus on Internet architecture and protocols. Understand and apply Different cyber tools.

Semester	II		Credits		3	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		2	0	1	0	60

Pre-requisites, if any	

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcomes upon completion of this course , the students will be able to:	Learning Domains *	PO No
1	Understand the computer networks, ranging from basic definitions and models to advanced concepts	**Understand**	**1,2**
2	Analyse, and troubleshoot network communication at different layers, preparing them for roles in networking and related fields.	**Analyse**	**1,2**
3	Apply access control models and understand the intricacies of security models, contributing to their readiness for roles in cyber security and related fields.	**Apply**	**1,2,3**
4	Apply and Evaluate computer forensics tasks to investigate computer crimes, extract digital evidence	**Evaluate**	**3,4**

Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1	1.1	Basic network types and Topology	2	1,2
	1.2	Protocol and Standards, connecting device	3	1,2
	1.3	TCP/IP and OSI model	5	1,2,4
2	2.1	Error detection ,Noiseless and Noisy channel	3	1,2
	2.2	Congestion control,DNS	3	1,2
	2.3	Other protocols	4	1,2
3	3.1	OSI Security Architecture, Security Attacks	3	1,2
	3.2	Security mechanism and service.	3	1,2
	3.3	Access control model	4	1,2,4
4	4.1	Understand the basic concept of crimes, evidence, extraction, preservation, etc.	4	1,2,4
	4.2	Understand the basic concept of OS	5	1,2,4
	4.3	Data recovery tools	8	1,2,3,4
	4.3	Digital evidence control tools	5	3,4
	4.4	apply Forensic tool	8	3,4
5	5.1	Teacher Specific content. This can be either class room teaching, practical session, field visit etc as specified by the teacher concerned. Evaluation is internal.		

Teaching and Learning Approach	**Classroom Procedure (Mode of transaction)** **Lecture and Practical**

Assessment Types	**MODE OF ASSESSMENT**
	   A. Continuous Comprehensive Assessment (CCA) 15 Marks
	       Written Test / Seminar / Viva/ Assignments
	
	     Practical 15 Marks

	B. Semester End examination 35 Marks,Time: 1.5 hours
	
	       Written test
	
	     Practical Examination 35 Marks

REFERENCES

1. Network security essentials, William Stallings, fourth edition, 2011 Pearson Education
2. Computer Networks, Andrew S. Tanenbaum, fifth Edition, 2013, Pearson Education India.
3. Data communication and Networking , Behrouz A Forouzan - Fourth Edition, McGraw Hill
4. Data and Computer Communications ,William Stallings- Eighth Edition, Prentice Hall

MGU-UGP (HONOURS)

Syllabus