SRM UNIVERSITY
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER APPLICATIONS

COURSE PLAN

Course Code : MC0651
Course Title : TCP/IP Networks [Elective Subject]
Semester : III,
Course Time : July – Nov 2012
Class : II MCA A & C

Day	Hour	Timing
Monday	2	01.30 - 02.20.p.m
Tuesday	1	08.45 - 9.35.a.m
Wednesday	3	10.35 – 11.25.a.m
Thursday	3	10.35 – 11.25.a.m

Location : S.R.M.E.C – Tech Park

Faculty Details

Sec.	Name	Office	Office hour	Mail id
A & C	P.Visalakshi	Tech park Second Floor TP206	Monday-Friday	**visalakshi.p@ktr.srmuniv.ac.in**

Required Text Book:

1. Behrouz A. Forouzan – TCP/IP Protocol Suite – McGraw Hill – 3rd Edition – 2002.

Web resources

www.brookscole.com/compsci

Prerequisite

- MC0504 – Data Communication and Networking

Objectives

The purpose of this course is to provide an in-depth analysis of the structure of TCP/IP software and also discusses various protocols in light of design alternatives, decisions and implementation techniques.

Assessment Details

Unannounced Quiz	:	10 Marks
Announced Quiz	:	5 Marks
Cycle Test	:	20 Marks
Model Exam	:	20 Marks
Case Study/Assignment	:	10 Marks
Attendance	:	5 Marks
TOTAL		70
End semester Theory	:	30 Marks

Test Schedule

S.No.	DATE	TEST	TOPICS	DURATION
1	13.08.2012	Cycle Test - I	TCP/IP Protocol suite, Addressing, ARP,IP,ICMP&IGMP	2 Periods
2	22.10.2012	Model Exam	Complete syllabus	3 Hours

Outcomes

At the end of the course, student should be able to understand:

Course outcome	Program outcome
To Learn - TCP Protocol Suite - Addressing - Various Protocols ARP, IP, ICMP, IGMP, UDP, TCP - Routing Protocols BOOTP, DHCP - Telnet, FTP, DNS	Knowledge of TCP/IP Protocol suite and various protocol concepts are incorporated to the students

Detailed Session Plan

Introduction

TCP/IP Protocol suite - Addressing, IP versions - Classful addressing - Sub netting & super netting – variable length block – subnetting and address allocation

Session No.	Topics to be covered	Time (min)	Ref	Teaching Method	Testing Method
1	TCP/IP Protocol suite	50	1	BB	Objective type test Descriptive Test
2	Addressing	50	1	BB	
3	IP versions	50	1	BB	
4	Classful addressing	50	1	BB	
5	Sub netting & super netting	50	1	BB	
6	variable length block	50	1	BB	
7	subnetting and address allocation	50	1	BB	
Protocols ARP – IP – ICMP – IGMP					
8	ARP	50	1	BB	Objective type test

9	RARP	50	1	BB	Descriptive Test Assignment
10	IP Fragmentation	50	1	BB	
11	IP Options	50	1	BB	
12	IP Check sum	50	1	BB	
13	IP Package	50	1	BB	
14	ICMP Messages, Format, Error reporting	50	1	BB	
15	ICMP Query	50	1	BB	
16	ICMP Check sum, Package	50	1	BB	
17	IGMP Messages, Operation	50	1	BB	
18	Encapsulation, IGMP Package	50	1	BB	
UDP and TCP Protocols					
19	User data gram	50	1	BB	Quiz Descriptive Test
20	UDP Check sum, operation	50	1	BB	
21	UDP uses & Packages	50	1	BB	
22	TCP services	50	1	BB	
23	TCP Features	50	1	BB	
24	Segment	50	1	BB	
25	TCP connection, State transition diagram	50	1	BB	
26	Flow control, error control	50	1	BB	
27	Congestion control, TCP timers	50	1	BB	
28	TCP options, TCP Pacakges	50	1	BB	
Unicast & Multicast Protocols Unicast routing protocol – Multicasting and multicasting routing protocol, BOOTP, DHCP					
29	Intra and Inter domain routing	50	1	BB	Quiz Group Disscussion
30	Distance vector routing	50	1	BB	
31	RIP, Link state routing	50	1	BB	
32	OSPF	50	1	BB	
33	Path vector routing, BGP	50	1	BB	
34	Unicast, multicast & Broadcast, applications	50	1	BB	
35	Routing, MOSPF, DVMRP, CBT, PIM	50	1	BB	
36	BOOTP	50	1	BB	
37	DHCP	50	1	BB	

DNS and FTP Domain name server, File transfer protocol, Remote login					
38	Name space, Domain name space	50	1	BB	Unannounced Quiz Assignment
39	Distribution, DNS in internet	50	1	BB	
40	Resolution, DNS Messages, Types of messages, DDNS	50	1	BB	
41	Telnet, NVT, NVT character set	50	1	BB	
42	Embedding, Options, Out-of-band	50	1	BB	
43	Mode of operation	50	1	BB	
44	FTP	50	1	BB	
45	TFTP	50	1	BB	

Prepared by **HOD/MCA**

P.Visalakshi
Assistant Professor (S.G)
Dept. of computer Applications
SRM University
Kattankulathur