

LESSON PLAN	
MSc. IT LE Sem-III	
Subject- WEB TECHNOLOGY	
August 2018 to November 2018	
Session	Topic
August (Month-1)	WEEK-1:-Introductory:Internet Basics: Networks, Protocols, TCP/IP, Internet Addresses
	WEEK-2:- Ports, Sockets, Name Resolution, Firewalls, Protocol Tunneling, Proxy Servers
	WEEK-3:Internet Standards, governing the web HTTP, MIME, Inside URLs, Web applications
	WEEK-4:- Overview of clients/servers web communication, comparison of web servers, Common Gateway Interface CGI.
September (Month-2)	WEEK-1:-Web Page Designing:Introduction to markup languages;HTML: list, table, images, frames, forms
	WEEK-2:-pages style sheets CSS;XML: DTD, XML Namespaces, XML schemes,
	WEEK-3:-Presenting XML with CSS and XSLT, XML-DOM, What is XHTML?
	WEEK-4:-Client Side Scripting:Java script: Introduction, documents, forms, statements, functions, objects
October (Month-3)	WEEK-1:Event and event handling; Browsers and the DOM, JQuery: Syntax, Selectors, Events and AJAX methods.
	WEEK-2:Server Side Programming: PHP: Introduction, requirements, PHP syntax, data type, variables, strings, operators, if-else
	WEEK-3:control structure, switch, array, function, file handling, form, sending email, file upload.
	WEEK-4: (MST - From 24-10-2018 to 31-10-2018)
November (Month-4)	WEEK-1:session/state management, error and exception, PHP Database for dynamic Web pages.
	WEEK-2:Introduction to Servlets: Servlet Basic Servlet Structure, Servlet Lifecycle, Servlet APIs.
	WEEK-3:Writing thread safe Servlets. Setting Cookies and Session Management with Servlet API
	WEEK-4: Revision & queries

Manpreet Singh

By 21/07/2018  
HOD

Principal  
Govt. College  
Ropar

**Department of Computer Science (JIEIS), Government College, Ropar**  
 (2019-20)  
**Class MSc IT Sem. 3<sup>rd</sup> (I.E) Subject Computer Network**

Week	Topics to be covered
Week 1	- Introduction to Computer Networks - Uses and significance of computer networks - Goals and applications of computer networks - Overview of computer network structure and architecture
Week 2	- Introduction to OSI model - Explanation of TCP/IP model - Comparative analysis of TCP/IP and OSI models - Introduction to Novell Netware and ARPANET
Week 3	- Static and dynamic channel allocation for LAN and MAN - Explanation of ALOHA protocols: Static ALOHA and Dynamic ALOHA
Week 4	- CSMA (Carrier Sense Multiple Access) - CSMA/CD (Carrier Sense Multiple Access with Collision Detection) - Collision-free protocols in LAN - Introduction to BRAP, MLMA, Binary Countdown, Limited Contention Protocol, Urn Protocol, Adaptive Tree Walk Protocol
Week 5	- Role and function of repeaters - Bridges: Types and usage - Routers: Principles and routing algorithms - Gateways and their significance - Introduction to network switches
Week 6	- Components of computer network hardware - Overview of network software: Protocols and services
Week 7	- Introduction to FDDI (Fiber Distributed Data Interface) - Fast Ethernet: Characteristics and benefits - Overview of HIPPI (High-Performance Parallel Interface) - Introduction to Fiber Channel technology
Week 8	-MST
Week 9	MST
Week 10	- Comparison between static and dynamic routing - Exploration of various routing algorithms, Explanation of Multiple Spanning Tree protocol
Week 11	- Causes of network congestion - Different strategies and algorithms for congestion control, - In-depth look at LAN IEEE 802.x standards
Week 12	- Introduction to mobile telephone technology - Functionality of Mobile Telephone Switching Office (MTSO)
Week 13	- Principles of internetworking - Introduction to connectionless internetworking

Week 14	- In-depth study of IPv6 protocol - Understanding IPv6 addressing
Week 15	- Security requirements for computer networks - Common network security attacks and countermeasures
Week 16	- Overview of encryption techniques - Public key encryption and digital signatures - Introduction to distributed applications: SNMP, SMTP, HTTP - Recap of the course and discussion of future trends in networking

*Mengwadi*

Teacher's Signature

*25/2/2019*

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**Department of Computer Science (HIEIS), Government College, Ropar**  
 (2018-19)  
**Class MSc IT Sem. 3<sup>rd</sup> (LE) Subject Computer Network**

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LESSON PLAN	
MSc. IT Sem-IV	
Subject- LINUX	
January 2019 to April 2019	
Month	Topic
January (Month-1)	<p>WEEK-1: Introduction: Overview of Linux, Linux's History, Advantages of Linux, Minimum System Requirements; Installing Linux; Choosing Text or Graphics Installation, Setting up your Hard Drive, Understanding the Swap Space</p> <p>WEEK-1: Creating the Linux File-system partition, Setting up the mouse, root password and Ethernet, Configuration X, Selecting packages to Install, Creating the Boot Disk. Using LILO boot manager: Installing LILO, LILO make-file, Updating LILO, Removing or Disabling LILO, Troubleshooting LILO, The Boot Process, Startup Scripts, Shutdown, Halt and reboot,</p> <p>WEEK-2: Creating a New Login, Virtual Terminals, Running as root. Basic Linux Commands : How Linux Commands Work, Command Options &amp; Parameters, Input and Output Redirection, Mian pages, Wildcards : * and ?, Environment Variables, The process status Commands : ps, termination command : kill, the su command, the grep command. Linux File System : Common types of files, filenames, Inodes, The root directory,</p>
February (Month-2)	<p>WEEK-3 How directories are named, Navigating the Linux file System : pwd command, Absolute and relative filenames; cd command, Creating and Deleting files : Cat, Creating Directories, Moving and Copying files, Moving Directories, Removing files and directories, Important directories in the Linux file System : /, /home, /bin, /usr, /usr/bin, /var/spool, /dev, /sbin, /etc.</p> <p>WEEK-4: File and Directory ownership, Groups, Changing group ownership, File Permissions, UMASK Setting, Changing File Permission, Changing directory permissions; Bash : What is Shell ? How the Shell gets Started, The most common Shells;</p>
March (Month-3)	<p>WEEK-1: Shell Scripting: Creating and Executing Shell Programs, Using variables : Assigning a value to a variable, Accessing the value of a variable, Positional Parameters and other Built-In Shell Variables; Special Characters</p> <p>WEEK-2: Conditional Statements : if Statement , case Statement; Iteration Statements : for Statement, while Statement, until Statement, shift Command, select Statement, repeat Statement, Functions. Editing and Typesetting : Text Editors vi, The vi Editor, Starting vi, vi modes,</p> <p>WEEK-3: Inserting Text, Quitting vi, Moving the Cursor, Deleting Text, Copying and Moving Text, Searching and Replacing Text, Setting Preferences. Configuring the X Window: Xfree86 Software Distribution, Choosing an X Server, Installing Xfree86 Manually, Installing Xfree86 using a Script, Path Environment Variable; Configuring Xfree86; The xconfig and XF86Config Files in Detail: Pathnames, Keyboard Setting, Mouse Definition, Monitor Model, Video Cards, The Xfree86 Server, Testing Xfree86 Configurations, The .xinitrc File.</p> <p>WEEK-4: MST</p>
April (Month-4)	<p>WEEK-1: Linux for System Administrators: System Administration Basics, The root Account, Starting and Stopping the System, Booting from a Floppy, Using LILO to Boot, Shutting Down Linux; Mounting File Systems : Mounting a Floppy, CD-ROM, Creating a New file System, Un-mounting file Systems, Backup and restore: Compressing files with gzip, Using tar and cpio;</p> <p>WEEK-2: Setting up your System : Setting the System Name, Using a Maintenance Disk, Forgetting the root Password, Setting the Login Message. Networking &amp; Network Services: What is TCP/IP? IP Address, Ports, Sockets, Subnets, Routing, Hardware Requirements, Configuring the Network, Configuration Files, Testing and Troubleshooting, The netstart Command, ping, traceroute, Mail, News, NFS, www, FTP, Telnet, DNS. Network Security: Firewalls,</p>

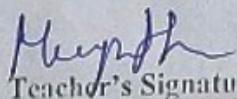
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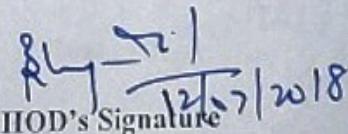
Manpreet Singh

21/01/2019

**Department of Computer Science (HEIS), Government College, Ropar**  
 (2018-19)  
**Class MSc IT Sem. 4th (E) Subject Modern Information System**

<b>Week</b>	<b>Topic and Content</b>
Week 1	Introduction to Systems and Basic Concepts - Introduction to systems and basic system concepts - Types of systems - Information systems: Definition and characteristics
Week 2	Types of Information and Role in Decision Making - Types of information - Role of information in decision making
Week 3	Types of Information Systems and Comparison - Types of information systems: Operations Support Systems (OSS) and Management Support Systems (MSS) - Comparison of EDP/MIS/DSS
Week 4	Overview of Management Information System (MIS) - Definition and characteristics of Management Information System (MIS) - Components of MIS
Week 5	Frameworks for Understanding MIS - Robert Anthony's Hierarchy of Management Activity - Information requirements and levels of management - Simon's Model of decision-making
Week 6	Functional Information Systems: Marketing and Personnel - Functional Information Systems: Marketing and Personnel - Study of input transaction documents, applications, and reports in Marketing and Personnel information systems
Week 7	Functional Information Systems: Financial and Production - Functional Information Systems: Financial and Production - Study of input transaction documents, applications, and reports in Financial and Production information systems
Week 8	Models for Functional Information Systems - Models for functional information systems
Week 9	Concept of Knowledge and Characteristics - Concept of knowledge: Definition and characteristics - Difference between data, information, and knowledge
Week 10	Knowledge vs. Experience and Types of Knowledge - Knowledge versus experience - Types of knowledge: Explicit and Tacit knowledge
Week 11	Nonaka and Takeuchi's SECI Model - Nonaka and Takeuchi theory of knowledge creation - Socialization, Externalization, Combination, and Internalization (SECI) Model
Week 12	Introduction to Knowledge Management - Introduction to knowledge management
Week 13	Knowledge Management Systems - Knowledge management systems
Week 14	Process of Knowledge Management - Process of knowledge management: Creation/capture, storage and retrieval, transfer and application
Week 15	Review, Applications, and Case Studies - Recap of Previous Topics - In-depth Study and Discussion on Applications and Case Studies - Assignments and Projects - Q&A Sessions - Presentations and Case Studies - Future Trends and Exploration

  
 Teacher's Signature

  
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**SULLABUS PLAN**

2018-19

**Subject: Computer Graphics (Sem-4)**  
**Subject Code: M.Sc (IT)**

	WEEK	TOPIC
AUGUST (Month-1)	Week1	Soft Copy Devices: Touch Panel, Light Pens, Graphic Tablets, Joysticks, Trackball, Data Glove, Digitizer, Image Scanner, Mouse, Voice Systems.
	Week2	
	Week3	Hard Copy Devices: Impact And Non Impact Printers, Such As Line Printers, Dot Matrix Printers,
	Week4	Laser, Ink-Jet, Electrostatic, Flatbed And Drum Plotters.
September (Month-2)	Week5	Video Display Devices: Refresh Cathode-Ray Tube, Raster Scan Display, Random Scan Display
	Week6	
	Week7	Color CRT-Monitors, Direct View Storage Tube, Flat Panel Displays, 3-D Viewing Devices, Raster Scan Systems,
	Week8	Random Scan Systems, Graphic Monitors And Workstation
October (Month-3)	Week9	Scan Conversation Algorithm Line, Circle And Ellipse, <b>MID SEMESTER TEST I</b>
	Week10	Bresenham's Algorithm, Area Filling Techniques, Character Generation.
	Week11	2-Dimensional Graphics: Cartesian And Homogenous Co-Ordinate Systems, Geometrical Transformation
	Week12	(Translation, Scaling, Rotation, Reflection, Shearing), Two Dimensional Viewing Transformation
November (Month-4)	Week13	Clipping (Line, Polygon And Text)
	Week14	3-Dimensional Graphics: Geometrical Transformation (Translation, Scaling, Rotation, Reflection, Shearing),
	Week15	Shading Modeling Light Intensities
	Week -16	REVISION

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Raj Singh  
12/07/2018  
Head of Deptt.

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