LESSON PLAN	
MSc. IT LE Sem-III	
Subject- WEB TECHNOLOGY	
August 2019 to November 2019	
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-3Internet 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: MST
	WEEK-2: MST
	WEEK-3: Event and event handling; Browsers and the DOM, JQuery: Syntax, Selectors, Events and AJAX methods. Server Side Programming: PHP: Introduction, requirements, PHP syntax,
	WEEK-4: data type, variables, strings, operators, if-else, control structure, switch, array, function, file handling, form, sending email, file upload.
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. Writing thread safe Servlets. Setting Cookies and Session Management with Servlet API.

HOD 6/07/2019

Manpreet Singh

Principal
Govt. College
Ropar

SULLABUS PLAN
2019-20

Subject: Computer Graphics
Subject Code: M.Sc (IT)

	WEEK	TOPIC
AUGUST (Month-1)	Week1	Soft Copy Devices: Touch Panel, Light Pens, Graphic Tablets, Joysticks,
	Week2	Trackball, Data Glove, Digitizer, Image Scanner, Mouse, Voice Systems.
	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,
		MID SEMESTER TEST I
	Week10	Breshenham's Algorithm, Area Filling Techniques, Character Generation.
	Week11	2-Dimensional Graphics: Cartesian And Homogenous Co-Ordinate Systems, Geometrical Transformation
November (Month-4)	Week12	(Translation, Scaling, Rotation, Reflection, Shearing), Two Dimensional Viewing Transformation
	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

Teacher Signature

Head of Deptt. 16/07/2019.

Govt. College
Ropar

Department of Computer Science (IIEIS), Government College, Ropar
(2019-20)
Class MSc IT Sem. 4th (LE) Subject RESEARCH METHODOLOGY(223)

SESSION	TOPICS
Week 1	**Objectives and types of research:** Definition and types of research (Descriptive and analytical research, applied and fundamental research, qualitative and quantitative research, conceptual and empirical research).
Week 2	**Research problem formulation:** Defining and formulating research problem and its necessity, selecting the problem, literature review and its importance; Primary and secondary data sources-library (books, journals, periodicals
Week 3	reference sources, abstracting and indexing sources, reviews, monographs), patents, web (search engines, online libraries, online journals, e-books, e-encyclopedia, institutional websites); Journals and books-standards of research journals (impact factor, ISSN, ISBN, online and print journals, indexed journals, peer reviewed journals), citation index, H-index; Identifying gaps areas from literature review.
Week 4	**Research design and methods:** Developing the research hypothesis; Research design – basic principles and need,
Week 5	**Reporting and thesis writing:** Structure and components of research report, types of report-monographs, review articles, research papers, thesis, books, technical reports and their significance;
Week 6	Important concepts; Observations and facts, laws and theories, prediction and explanation, induction, deduction; Development of models, developing a research plan, exploration, description, diagnosis, experimentation
Week 7	**Data collection:** Execution of research, observation and collection of data, methods of data collection, primary data, secondary data.
Week 8	**Mid semester Test**
Week 9	**Mid semester Test**
Week 10	**Presentation of research papers:** Poster presentations-layout and format; Oral presentation-planning, preparation, use of visual art, importance of effective communication.
Week 11	Different steps in preparation of a written scientific document- layout, structure and language of reports, illustrations and tables, bibliography, references, footnotes
Week 12	**Application of intellectual property rights:** Commercialization, copyright, royalty, intellectual property rights and patent law
Week 13	Plagiarism-concept and authentication of originality of research; Citation and acknowledgement; Reproducibility and accountability

Week 14	**Cost analysis of project:** Cost incurred on raw materials, different testing procedures, cost of instrumentation, downstream processing cost (wherever required); Cost of clinical trials
Week 15	**Research grants:** National/International funding agencies; Government and private bodies.
Week 16	**Documentation:** Techniques and importance of documentation; Role of internet, information technology and computers in research and documentation

Teacher's Signature

HOD's Signature

Principal
Govt. College
Ropar

LESSON PLAN	
MSc. IT Sem-IV	
Subject- LINUX	
January 2020 to April 2020	
Month	**Topic**
January (Month-1)	WEEK-4: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
February (Month-2)	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,
	WEEK-2:Creating a New Login, Virtual Terminals, Running as root. Basic Linux Commands : How Linux Commands Work, Command Options & 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,
	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.
	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;
March (Month-3)	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
	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,
	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.
	WEEK-4: MST
April (Month-4)	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;
	WEEK-2:Setting up your System : Setting the System Name, Using a Maintenance Disk, Forgetting the root Password, Setting the Login Message. Networking & 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.

Manpreet Singh

Principal
Govt. College