



Yashwantrao Chavan Maharashtra Open University, Nashik

School of Computer Science
Syllabus of B.Sc. in CSA (Bachelor of Science in Computer System Administration)
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Semester 1

Business Communication 1- (CSA111)

Unit No. and Name	Topic details
Unit 1: What is Business Communication?	The process of Business communication, sharing information. Effective business communication, its purpose improving organizational practices and reduce errors
Unit 2: Why Is It Important to Communicate Well?	Communicating openly, clearly and with empathy. Establishing Transparency and trust
Unit 3: Eight Essential Components of Communication	Essential Components of Communication - source, message, channel, receiver, feedback, environment, context, and interference
Unit 4 Your Responsibilities as a Communicator	As a communicator, responsibilities as being prepared and being ethical, being organized, clear, concise, and punctual, practicing the "golden rule"
Unit 5: What is customer centric communication?	putting the customer first and at the center of everything ,taking steps to understand the customer and act on that understanding by creating a culture that empowers employees to make the best decisions for both the customer and the company in parallel
Unit 6: How technology achieves customer centric communication!	The technologies that helps a brand/business understand customers' problems, aspirations, and expectations, which help in quicker resolution and providing tailor-made solutions according to personal expectations
Unit 7: Constructive Way of Handling Customer Queries	Staying Calm when handling a customer complaint, listening if a customer comes to you with a problem, Being Kind, Asking Questions
Unit 8: Handling a call of a difficult customer	Remaining calm, practicing active listening, repeating back what your customers say, thanking them for bringing the issue to your attention, Explaining the steps you'll take to solve the problem.
Unit 9: Attending and Making Customer Calls	Answering with a professional tone, using common terminology, Starting and ending the call with enthusiasm, Keeping the conversation personal, Clarifying the customer's issues and concerns.

Introduction to IT Hardware (CSA112)

Unit No. and Name	Topic details
Unit 1: Identifying PC Components	Overview of Input, Output storage and processing devices
Unit 2: Identifying System Unit Components	Motherboards , Power Supply,CMOS RAM,SMPS
Unit 3: Types of Motherboards	Form factors, components on Motherboard, Latest Motherboards
Unit 4: Multimedia Devices	Speakers, Mikes, Sound and Other plug and play devices
Unit 5: Identifying Storage Devices	SATA, PATA,SSD, primary and secondary storage devices
Unit 6: SATA Drives	Architecture and working of SATA Hard disks
Unit 7: PATA Drives	Architecture and working of PATA Hard disks
Unit 8: SCSI Drives	Architecture and working of SCSI Hard disks
Unit 9: RAID Drives	Architecture and working of SCSI Hard disks, Types of RAID
Unit 10: SAN and NAS	Difference between SAN and NAS, Features of SAN and NAS
Unit: 11: Assembling a PC	Process for PC assembling , Demonstration Of Assembling PC components
Unit 12: Identifying Types of Printers and Scanners	Types of Printers , scanners, pricing, working and features

Introduction to IT Networks (CSA113)

Unit No. and Name	Topic details
Unit 1: Basics of Networking	Overview of Networking Concepts , Why we need networking ,basic elements that forms a network
Unit 2: OSI Model	Architecture of OSI Model, layers of OSI model
Unit 3: TCP/IP Model	Architecture of TCP/IP Model, layers of OSI model
Unit 4: Network Protocols	Different types of Networking protocols, Functions of different networking protocols
Unit 5: Network Topology and Network Devices	Different types of Networking topologies, devices used in network topologies, routers , switches
Unit 6: Network Cabling	Types of cables used in Networking, Fiber optic, Twisted pair cables etc.
Unit 7: Internet Connectivity types	Leased lines, Broadband , satellite , Wi-Fi networks, PRI and BRI lines
Unit 8: Basics of IP Addressing	Static and dynamic IPs, public and private IP addresses
Unit 9: Classes of IP Addressing	Classes of IP Addresses, Class A, B C and D , Subnet masks
Unit 10: Sub netting	Range for Classes of IP Addresses, Class A, B C and D and sub netting techniques

IT Skills – Basics (CSA114 & LAB CSA117)

Unit No. and Name	Topic details
Unit 1: Word Processing	Introduction to MS-Word , Menu and Tools bars in MS Word, Creating business documents using MS -word
Unit 2: Spreadsheets	Introduction to MS-Excel , Menu and Tools bars in MS Excel, Creating business spreadsheets using MS -excel
Unit 3: Presentation Graphics	Introduction to MS- PowerPoint, Menu and Tools bars in MS PowerPoint, Creating business spreadsheets using MS -PowerPoint
Unit 4: Personal Information Manager	Software used for Personal Information Manager Arranging and representing the personal information
Unit 5: Personal Information Manager – Mail	Composing and sending Emails, MS-Outlook , Web based mails
Unit 6: Personal Information Manager – Calendrer	Using calendars to schedule meetings, booking appointments etc.
Unit 7: Personal Information Manager – Contacts, Tasks and Notes	Storing and retrieving business contacts digitally , creating mailing lists, Outlook contacts

Troubleshooting IT Hardware (LAB CSA115)

Unit No. and Name	Topic details
Unit 1: Working with BIOS	Overview of BIOS, Different Options to enter BIOS
Unit 2: Configuring BIOS settings	Different settings available in BIOS menu, Online simulator to edit BIOS Settings
Unit 3: Designing Custom PCs	Getting invoices according to the Usage of computer, selecting a right configuration of PC for Gaming, Office , Personal use etc.
Unit 4: Tablets Vs Laptops	Difference between a tablet and a laptop, features, advantages and disadvantages of using tablets and using laptops.
Unit 5: Understanding Laser Printers	Working of a laser printer , components used for printing in laser printers
Unit 6: Troubleshooting Hard Drives	Identifying and resolving Hard drive errors , different scenarios for troubleshooting hard disks
Unit 7: Troubleshooting and Maintaining Printers	Various scenarios for troubleshooting Printers, Software to get print logs, managing print errors
Unit 8 Install, Configure and Troubleshoot Display Device	Different types of display devices, identifying and resolving errors related to display devices
Unit 9: Install, Configure and Troubleshoot Adapter Cards	Different types of adapter cards used with PCs and laptops , device driver and other settings related to external Adapter Cards
Unit 10: Troubleshooting PC Hardware	Using different hardware and software tools like multimeter,lan testers , Hardware monitors for Troubleshooting PC Hardware

Troubleshooting IT Networks (LAB CSA116)

Unit No. and Name	Topic details
Unit 1: Configuring DHCP for Small Network	What is DHCP, Step by step Process to configure DHCP
Unit 2: Network Ports	Types of Network ports, common used network port numbers, TCP and UDP port numbers
Unit 3: Overview of DNS	What is DNS, Functions of DNS, Port used for DNS
Unit 4: WINS vs DNS	Difference between WINS vs DNS, Features of WINS and DNS
Unit 5: MAC Address Formats	What is a MAC Address, How to find MAC Address of a machine, Function of MAC Address
Unit 6: Troubleshooting of Networks	Using different hardware and software tools like lan testers , networking commands, bandwidth monitors for Troubleshooting network connectivity and other errors
Unit 7: Configuring Wi-Fi Network	Step by step guide for configuring Wi-Fi Network, SSID and Wireless security protocols, different Wireless Standards

Semester II

Computer Security Basics (CSA211 & LAB CSA214)

Unit No. and Name	Topic details
Unit 1: Using Antivirus Software	Different types of computer viruses, malwares, adware and spywares, using good antivirus software for securing PCs
Unit 2: Adware and Spywares	What are adware and spywares, using antispymware and antimalware software
Unit 3: Antispam Technologies	What are spam mails, how to use antispam technology, using spam filters
Unit 4: Firewalls, Proxy server and routers	What is firewall, types of firewalls, what is proxy server, using ACL in routers for securing networks
Unit 5: Securing Servers - Server Hardening	What is Server Hardening, which security parameters are used in Server Hardening
Unit 6: Authentication and Encryption	Difference between Authentication and Authorization, Examples of Authentication and Authorization process, types of encryptions
Unit 7: Network Address Translation	What is NAT, PAT Vs NAT, Process of Network Address Translation and security of network
Unit 8: Overview of IPS and IDS	Intrusion detection and Prevention systems, types of IPS and IDS

Desktop Operating Systems (CSA212 & LAB CSA215)

Unit No. and Name	Topic details
Unit 1: Types of Operating Systems	Different types of Operating Systems like Windows, Mac,Linux, Android etc.
Unit 2: Installing Windows 7 OS	Creating bootable iso file for OS installation, CD and pen drive based installations ,preparing for Windows 7 installations
Unit 3: Installing Ubuntu on a PC	Creating bootable iso file for OS installation, CD and pen drive based installations ,preparing for Ubuntu installations
Unit 4: Installing Windows server 2008 R2	Creating bootable iso file for OS installation, CD and pen drive based installations ,preparing for SERVER OS installations
Unit 5: Users in Linux	Types of users in Linux, commands for creating groups and users in Linux
Unit 6: Users in Windows	Types of users in Linux, commands for creating groups and users in Windows
Unit 7: Creating Users and groups in Windows	Using Computer Management console to create, Add, delete users and groups in Windows 7. Guest and admin user accounts in Windows 7
Unit 8: File System in Linux	Types of files , commands for creating, listing, moving and storing files
Unit 9: File System in Windows	File system, creating files and folder , sharing files and folder in Windows
Unit 10: Partitioning a Hard Disk, Managing Devices and Drivers in an OS	Using Disk management ,device manager features, shrink volume options for partitioning in Windows

Managing and Maintaining Desktop OS (CSA213 & LAB CSA216)

Unit No. and Name	Topic details
Unit 1: Creating Virtual OS Environment	What is Virtualization, Benefits of using virtualization , types of Virtualization
Unit 2: Creating Windows 7 Virtual Operating System	Step by step process guide to create a Windows 7 Virtual machine
Unit 3: Creating Ubuntu Virtual Operating System	Step by step process guide to create Ubuntu Virtual machine
Unit 5: Configuring backups in Windows 7	Types of Backups , importance of data backups, Options to configure backup in Windows 7
Unit 6: Capturing Disk Image -Backup	Step by step process guide to capture the entire disk backup with Operating system and user data
Unit 7: Capturing Disk Image -Restore	Step by step process guide to restore the entire disk backup with Operating system and user data using disk image
Unit 8: Configuring Regional Language Settings	Local language settings and keyboard shortcuts for using regional languages on windows 7 PC
Unit 9: Configuring Remote Desktop Settings	How to use Remote desktop, remote assistance and other remote support settings

Semester III

Business Communication 2 (CSA311)

Unit No. and Name	Topic details
Unit 1: Following Processes for Customer's Benefit	Overview of steps which a customer goes through to interact with an organization, looking at the organization from the customer's point of view
Unit 2: Communicating Processes to Customer	Building relationships, taking the time to be professional and personable with your customers, listening to customers, developing customer service standards
Unit 3: Following Processes to Lead	The lead process, the lead management ,how your business finds potential customers and clients, Using several different methods, including networking, cold calling, emailing or using specialized, data-driven sales prospecting tools

Configuring Windows 7(CSA312 & LAB CSA315)

Unit No. and Name	Topic details
Unit 1: Different Editions of Windows 7	Starter, Home Premium, Professional, Enterprise, and Ultimate Editions of Windows 7
Unit 2: 32bit Vs 64 Bit Windows 7	Difference between 32bit Vs 64 Bit Windows 7, Features of 32bit and 64 Bit Windows 7
Unit 3: Upgrading to Windows 7	Upgrade path and options available for Windows 7
Unit 4: Migrating to Windows 7	Options available for Migrating to Windows 7, compatible Editions of window OS
Unit 5: Creating ISO images and Creating data disk from ISO image	What is an iso image, Software used to create iso image, how to use iso image to create a data disk , how to create a bootable iso image
Unit 6: Installing Windows 7 Operating System	Different options for installing Windows 7 Operating system
Unit 7: Creating and Configuring User Accounts in Windows 7	Types of users available in Windows 7, creating new users and groups in Windows 7
Unit 8: Managing Files in Windows 7	Windows 7 file system , creating files and folders in Windows 7
Unit 9: Configuring Devices in Windows 7	Installing and configuring new devices in Windows 7, using Device manager in Windows 7
Unit 10: Configuring Data Backups in Windows 7	Disk management option in Windows 7, step by step guide to Configure Data Backups in Windows 7

Managing and Maintaining Windows 7(CSA313 & LAB CSA316)

Unit No. and Name	Topic details
Unit 1: Managing Windows Updates in Windows 7	What are Windows updates, Importance of keeping Windows up to date with latest updates, scheduling Windows Updates
Unit 2: Managing Remote Administration using Remote Desktop	Different inbuilt tools in Windows 7 and other third party software to provide remote technical support
Unit 3: Managing Remote Administration in Windows 7 - Part 1	How to generate invitation file and start giving Remote Administration support in windows 7
Unit 4: Managing Remote Administration in Windows 7 - Part 2	How to accept invitation file and start getting Remote Administration support in windows 7
Unit 5: Monitoring Windows 7 Using Log Files	Using Event viewer, Types of Event logs, how to use Event viewer for monitoring Windows 7 system
Unit 6: Managing Performance Settings in Windows 7	In-built tools in Windows 7 for performance tuning , using Task manager to monitor Disk, CPU , Memory usage
Unit 7: Managing Secure Browsing in Windows 7	Using incognito mode, history and browsing data settings available in Windows 7 for secure browsing

Configuring Windows Server 2008(CSA314 & LAB CSA317)

Unit No. and Name	Topic details
Unit 1: Why we need Server OS	Difference between Client and server OS , Benefits of using Server OS
Unit 2: Different Editions of Windows server 2008	Standard, Enterprise, Data Center, Web server editions of Windows server 2008
Unit 3: Windows Server 2008 Vs 2008 R2	Difference between Server 2008 Vs 2008 R2, additional features which are released with Windows Server 2008 R2
Unit 4: Installing Windows server 2008 Part 1	Step by step guide to install Windows server 2008 using CD/ DVD
Unit 5: Installing Windows server 2008 Part 2	Creating virtual machine environment for Windows server 2008 VM , hardware requirements and edition selection for server VM
Unit 6: Installing Windows Server 2008 Part 3	Installing and configuring windows server 2008 R2 virtual machine using virtualization software
Unit 7: Configuring Windows Server 2008 R2 VM	Step by step process guide to create a Windows Server 2008 R2 Virtual machine
Unit 8: Roles and Features in Windows Server 2008R2	Configuring web server, print server, domain controller and other available roles in Windows Server 2008R2
Unit 9: Configuring DHCP in Windows Server 2008 R2	How to setup and configure DHCP in Windows Server 2008 R2
Unit 10: Configuring FTP in Windows Server 2008 R2	Configuring File transfer server using roles and features option in Windows Server 2008 R2
Unit11: Installing Server Core -Part 1	Overview of Server corer feature ,Option to install server corer ,commands and syntax for using server core
Unit 12: Using PowerShell ISE in Windows Server 2008 R2	Overview of PowerShell ISE feature in Windows Server 2008 R2, installing and configuring PowerShell ISE in Windows Server 2008 R2
Unit 13: PowerShell in Windows server 2008 R2- Part1	Commands and syntax to be used in PowerShell ISE in Windows Server 2008 R2

Unit No. and Name	Topic details
Unit14: Capturing System Image-Backup &Restore	Step by step process guide to capture the entire disk backup with Server Operating system and user data
Unit 15: Capturing System Image- Restore	Step by step process guide to restore the entire disk backup with Server Operating system and user data
Unit 16: Managing File shares using DFS in Windows Server 2008 R2	Configuring file permissions, defining Quotas, securing files and folders using DFS feature in Windows Server 2008 R2
Unit 17: Performance Monitoring in Windows Server 2008 R2	Using various in-built tools in Windows Server 2008 R2 for performance tuning

Semester IV

IT Infra Support Services (CSA411)

Unit No. and Name	Topic details
Unit 1: IT Asset Manager	Work profile , roles and responsibilities, skills and toolset used by an IT Asset manager
Unit 2: IT Help Desk Manager	Work profile, roles and responsibilities, skills and toolset used by an IT Help Desk Manager
Unit 3: User Account Manager	Work profile, roles and responsibilities, skills and toolset such as Active directory used by an IT User Account Manager
Unit 4: QMS Officer	Work profile, roles and responsibilities, skills and toolset used by a QMS Officer
Unit 5: Technical Writer	Work profile, roles and responsibilities, skills and toolset used by a Technical Writer
Unit 6: Web Domain Manager	Work profile, roles and responsibilities, skills and toolset such as Domain naming systems , web servers used by a Web Domain Manager
Unit 7: Product Support Specialist	Work profile, roles and responsibilities, skills and toolset used by a Product Support Specialist
Unit 8: SMS Gateway Manager	Work profile, roles and responsibilities, skills and toolset such as SMS gateways used by a SMS Gateway Manager
Unit 9: IT Presale consultant	Work profile, roles and responsibilities, skills and toolset used by an IT Presale consultant

Configuring Windows Server 2008 Active Directory (CSA412 & LAB CSA415)

Unit No. and Name	Topic details
Unit 1: Preparing for Active Directory Design	Prerequisites for Active directory setup, designing AD setups, Hardware requirements
Unit 2: Designing the Internal AD DS Infrastructure	Setting up Domain controllers , creating parent and child domains, creating AD Users
Unit 3: Extending the Active Directory Design	Creating extended AD setup using various trees, parent and child domains
Unit 4: Designing and AD DS Forest	Creating forest setup using various trees, parent and child domains

Unit No. and Name	Topic details
Unit 5: Designing and AD DS Forest Trust	Single trust relationship, providing seamless authentication and authorization experience across the forests
Unit 6: Creating and Implementing an OU Design	What is an Organizational unit , purpose of an OU in Active directory setup

Configuring Windows Server 2008 Network Infrastructure(CSA413)

Unit No. and Name	Topic details
Unit 1: Planning and Configuring IPv4	IPV4related settings
Unit 2: Overview of the DHCP Server Role	Static Vs Dynamic IP addressing, Overview of the DHCP Server Role, Managing a DHCP Database
Unit 3: DHCP Scopes and Options	Configuring DHCP Scopes and Options, Monitoring and Troubleshooting DHCP, Securing DHCP
Unit 4: Configuring DHCP options	Step by step guide for Configuring and Troubleshooting the DHCP Server Role
Unit 5: Installing the DNS Server Role	Basic architecture of DNS , Forward and reverse lookup zone in DNS
Unit 6: Overview of IPv6	Need for using IPV6, Structure of IPV6 Address,IPV6 settings

Managing and Maintaining Windows Server 2008 Network Infrastructure (CSA414 & LAB CSA417)

Unit No. and Name	Topic details
Unit 1: Implementing an IPv4 Network Infrastructure	Static Vs Dynamic addressing, assigning IPV4 address to a machine, Network Access protection and IPV6
Unit 2: Configuring and Troubleshooting IPv4	Basic commands to configure and troubleshoot IPV4 address, settings for IPV4 addressing schemes
Unit 3: Monitoring and Troubleshooting DHCP and DNS	Different inbuilt and third party tools like nslookup, DNSsy for Monitoring and Troubleshooting DHCP and DNS
Unit 4: Configuring DHCP and DNS Security	What is routing and remote access, network authentication and authorizations, integrating DHCP servers with routing and remote access services
Unit 5: Transitioning from IPv4 to IPv6	Transition Requirements, Standardized Transition Tools, IPv4 and IPV6 Interoperability, Site Transition Scenarios, IPV6 to IPV4 as a Transition Mechanism, Other Transition Mechanisms
Unit 6: Implementing Network Access Protection	Benefits of using NAP (Network access protection) configuring and using Network Access Protection

Managing and Maintaining Windows Server 2008 Active Directory (CSA416)

Unit No. and Name	Topic details
Unit 1: Designing AD DS Domains	AD DS Design and planning, Understanding AD DS Design,Identifying deployment requirements, Designing logical structure
Unit 2: Designing DNS Namespaces in an AD DS Environment	DNS Namespace planning, scenarios related to DNS records, DNS queries, DNS server log events
Unit 3: Designing AD DS Domain Trusts	AD DS Domain Trusts types, Trust Flow, Transitive vs. Non-Transitive trusts, Parent-Child Trust, Tree-Root trust

Unit No. and Name	Topic details
Unit 4: Designing AD DS Sites	Designing a site topology, planning for domain controller placement, Creating a Site Link Design
Unit 5: Designing AD DS Replication	Understanding connection objects, failover functionality, subnet, site links and global catalog server
Unit 6: Designing AD DS Domain Controllers	A directory service, Primary domain controller, additional domain controller, installing AD DS Domain Controllers
Unit 7: Designing AD DS Group Policy	Group Policy design best practices, Design and implement an AD DS organizational unit (OU) infrastructure, Design and implement a Group Policy Object (GPO) strategy, different group policies in AD DS

Semester V

Soft Skills 1(CSA511)

Unit No. and Name	Topic details
Unit 1: Self Awareness	Being aware of different aspects of the self-including traits, behaviours, and feelings, psychological state in which oneself becomes the focus of attention
Unit 2: Interpersonal Skills	Various behaviours and tactics a person uses to interact with others effectively. Employee's abilities to work well with others.
Unit 3: Presentation Skills	A set of abilities that enable an individual to: interact with the audience; transmit the messages with clarity; engage the audience in the presentation; and interpret and understand the mind-sets of the listeners.
Unit 4: Time Management	The process of organizing and planning how to divide your time between specific activities. Enabling to work smarter – not harder ,even when time is tight and pressures are high
Unit 5: Goal Setting and Decision making	Setting goals that you want to accomplish. In order to be motivated to actually achieve your goals, they need to be based on the information that you considered during the decision-making process. Considering the goals thoughtfully to ensure that they don't contradict each other.

Red Hat Linux Basic Administration (CSA512)

& Administering Red Hat Linux Systems - 1(CSA515)

Unit No. and Name	Topic details
Unit 1: Linux System Architecture	Feature of Linux, Multitasking, Multiuser , open source , basic architecture of Linux system
Unit 2: Linux Installation	Pre installation planning, hardware requirement, creating dual boot system, partitioning requirements

Unit No. and Name	Topic details
Unit 3: Package Management	Using package manager to allow users to install, remove, upgrade, configure and manage software packages on an operating system
Unit 4: GNU and UNIX Commands	Basic Linux commands, using commands for administrative tasks
Unit 5: Device Management in Linux File systems	Understanding storage device management in Linux, how Linux represents files, directories and storage devices such as hard drives, flash drives, etc.
Unit 6: Linux File systems	Overview of Linux file systems such as Ext, Ext2, Ext3, Ext4 and swap.

Configuring and Maintaining Red Hat Linux Systems (CSA513)

& Administering Red Hat Linux Systems – 2(LAB CSA516)

Unit No. and Name	Topic details
Unit 1: Shells	Different Shells in Linux, Bourne shell (sh), Korn shell (ksh), Bourne Again shell (bash), POSIX shell (sh)
Unit 2: Scripting	Writing a series of command for the shell to execute, basic steps involved with shell scripting such as writing the script, making the script accessible to the shell and giving the shell execute permission.
Unit 3: Data Management	ways of managing resource allocation, ways of dealing with files that are accessed by many users more or less simultaneously, tools provided in Linux systems for overcoming the limitations of flat files as a data storage medium
Unit 4: Interfaces and Desktops	Graphics server, Desktop environment Applications in Linux
Unit 5: Administrative Tasks	System maintenance and monitoring related tasks, using various tools and commands for Administrative Tasks
Unit 6: Essential System Services	Maintaining system time, System logging, Manage printers and printing, Mail Transfer Agents

Red Hat Linux Advanced Administration (CSA514)

& Administering Red Hat Linux Systems – 3(LAB CSA517)

Unit No. and Name	Topic details
Unit 1: Capacity Planning	Resources and other hardware planning for configuring and maintaining a Linux machine
Unit 2: Linux Kernel	Architecture of a Linux Kernel, three types: monolithic, microkernel, and hybrid.
Unit 3: System Start-up	Init levels, System Start-up components and phases, LILO, GRUB
Unit 4: File system and Devices	File structure , root directory , file permissions, important folders and directories
Unit 5: Advanced Storage Device Administration	Advanced storage, redundancy & recovery to RAID, device administration & utilities that are necessary when administering a Linux system

Unit No. and Name	Topic details
Unit 6: Networking Configuration	TCP/IP networking, network administration and system configuration basics
Unit 7: System Maintenance	Linux commands for file system maintenance, system and security logs, troubleshooting the boot process, automating reports

Semester IV

Soft Skills – 2(CSA611)

Unit No. and Name	Topic details
Unit 1: Being Flexible	Definition of “flexibility”, developing ability to bend without breaking. the ability to adjust to changes without creating stress or drama. Changing plans and adapt to new situations easily
Unit 2: Workplace Ethics	An attitude of determination and dedication toward one's job, placing a high value on professional success through good workplace ethics. Exhibiting moral principles
Unit 3: Conflict Management	The practice of being able to identify and handle conflicts sensibly, fairly, and efficiently. Resolving conflict in the workplace quickly and professionally. Types of conflict resolution include accommodating, avoiding, collaborating, competing, and compromising
Unit 4: Positive Health (Stress Management)	A wide spectrum of techniques and psychotherapies aimed at controlling a person's level of stress, the motive of improving everyday functioning
Unit 5: Customer Relationship Management	Building and maintaining profitable relationships with key customers, Overseeing the relationship with customers, Resolving customer complaints quickly and efficiently, Keeping customers updated on the latest products

Ethical Hacking (CSA612 & LAB CSA614)

Unit No. and Name	Topic details
Unit 1: Introduction to Ethical Hacking	What is hacking, Advantages, disadvantages and purposes of hacking
Unit 2: Different Types of Hackers	Types of hackers white hat, black hat, grey hat and other miscellaneous types of hackers
Unit 3: Ethical Hacking Techniques	Various hacking techniques such as: Password guessing and cracking, Session hijacking, Session spoofing, Network traffic sniffing, Network traffic sniffing, Denial of Service attacks etc.
Unit 4: Phases of Ethical Hacking	Set of distinct phases followed by an Ethical hacker to make a structured ethical hacking attack
Unit 5: Tools used in Ethical Hacking	Tools that are widely used to prevent hacking and getting unauthorized access to a computer or network system such as NMAP, Metasploit, burp suite etc.
Unit 6: Reconnaissance and Foot Printing	Step by step process of Reconnaissance and Foot Printing and tools used in it

Advanced Security Practices (CSA613 & LAB CSA615)

Unit No. and Name	Topic details
Unit 1: Penetration testing	What is Pen test, Different stages of penetration testing such as Reconnaissance, Scanning, Gaining Access, Maintaining Access and Covering Tracks
Unit 2: Vulnerability scanning tools	What is Vulnerability scanning, network based, host based vulnerability scanners
Unit 3: Security log analysis	Types of logs, monitoring and managing Security log, configuring alerts based on security logs
Unit 4: Risk management process	Risk analysis and risk management, documenting risk management process
Unit 5: Server Hardening	Process of Server Hardening, it's purpose and different resources like RAM ,Disk space used in Server Hardening
Unit 6: Educating End Users	Awareness about data and information security in End Users, security policies and consequences