



BRAINWARE UNIVERSITY

[BNCSC202]

[2022-2023]

MICRO LECTURE PLAN

Name of the Faculty: Manish Das	
Designation of Faculty: Visiting Instructors	
Department of Faculty: Cyber Science & Technology	
Paper Name & Code: Linux System Administration I	Contact Hours: 4-0-0
Target Student: B.Sc. (H) in ANCS-2022	Section: B

Module No.	Objectives	Topics	Date	Key Activities/Resources Used (ICT Tools)	Teaching Methodologies (participative learning/experiential learning/problem solving methodologies/specify if any others)	Duration	Time
		L1: Basic concept of open source software; what is Linux	16/Feb/2023			1 hours	12:00 PM - 01:00 PM
		L2: Brief History of Linux and UNIX	17/Feb/2023			1 hours	12:00 PM - 01:00 PM
		L3: Difference between Linux and other Operating Systems	20/Feb/2023			1 hours	01:00 PM - 02:00 PM
		L4: Hardware requirement for the Linux OS	21/Feb/2023			1 hours	02:00 PM - 03:00 PM

1	Introduction to Linux Operating System	L5: different types of Linux distribution	23/Feb/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	12:00 PM - 01:00 PM
		L6: Concept of Shell and Kernel	24/Feb/2023			1 hours	12:00 PM - 01:00 PM
		L7: Booting process of Linux	27/Feb/2023			1 hours	01:00 PM - 02:00 PM
		L8: Directory Structure	28/Feb/2023			1 hours	02:00 PM - 03:00 PM
		L9: Running Shell commands	02/Mar/2023			1 hours	12:00 PM - 01:00 PM
		L10: vi, vim	03/Mar/2023			1 hours	12:00 PM - 01:00 PM
		L11: gedit editor	06/Mar/2023			1 hours	01:00 PM - 02:00 PM
		L12: nano editor	09/Mar/2023			1 hours	12:00 PM - 01:00 PM
2	Users and Group Management	L13: Create, delete, and modify local user accounts	10/Mar/2023			1 hours	12:00 PM - 01:00 PM
		L14: Change passwords and adjust password aging for local user accounts	13/Mar/2023			1 hours	01:00 PM - 02:00 PM
		L15: Create, delete, and modify local groups and group memberships Flip Class - I	14/Mar/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK/ Flip Class	discussion/ Flip Class	1 hours	02:00 PM - 03:00 PM
		L16: Configure superuser access	16/Mar/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	12:00 PM - 01:00 PM
		L17: Understanding Sudo user	17/Mar/2023			1 hours	12:00 PM - 01:00 PM
		L18: Understanding /etc/passwd	20/Mar/2023			1 hours	01:00 PM - 02:00 PM
		L19: Understanding /etc/shadow file Continuous Assessment - I	21/Mar/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK/Co ntinuous Assessment	discussion/Evaluation	1 hours	02:00 PM - 03:00 PM
		L20: Understanding /etc/group	23/Mar/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	12:00 PM - 01:00 PM
		L21: Understanding password aging policy	24/Mar/2023			1 hours	12:00 PM - 01:00 PM
		L22: Understanding password aging policy	27/Mar/2023			1 hours	01:00 PM - 02:00 PM
		L23: List, set, and change standard ugo/rwx permissions	28/Mar/2023			1 hours	02:00 PM - 03:00 PM
		L24: List, set, and change standard ugo/rwx permissions	30/Mar/2023			1 hours	12:00 PM - 01:00 PM

3	Permission and Advance Permission	L25: Create and configure SUID	31/Mar/2023			1 hours	12:00 PM - 01:00 PM
		T1: Theory Assignment 1	01/Apr/2023	Assignment	Assignment	1 hours	-
		L26: Create and configure SGID	03/Apr/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	01:00 PM - 02:00 PM
		L27: Create and configure STICKY BIT directories for collaboration	04/Apr/2023			1 hours	02:00 PM - 03:00 PM
		L28: Create and manage Access Control Lists (ACLs)	06/Apr/2023			1 hours	12:00 PM - 01:00 PM
		T1: Theory Assignment 1 Submission	08/Apr/2023	Assignment	Assignment	1 hours	-
		L29: Create and manage Access Control Lists (ACLs)	10/Apr/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	01:00 PM - 02:00 PM
		L30: Create and manage Umask Unit	11/Apr/2023			1 hours	02:00 PM - 03:00 PM
4	Understand and use essential tools	L31: Access a shell prompt and issue commands with correct syntax	13/Apr/2023			1 hours	12:00 PM - 01:00 PM
		L32: Use input-output redirection (>, >>, , 2>, etc.)	14/Apr/2023			1 hours	12:00 PM - 01:00 PM
		CT1: Class Test 1	17/Apr/2023	Internal Assessment	Evaluation	1 hours	-
		CT1: Class Test 1	18/Apr/2023			1 hours	-
		CT1: Class Test 1	19/Apr/2023			1 hours	-
		L33: Use grep and regular expressions to analyse text	20/Apr/2023			1 hours	12:00 PM - 01:00 PM
		L34: Archive, compress, unpack, and uncompress files using tar, star, gzip, and bzip2	21/Apr/2023			1 hours	12:00 PM - 01:00 PM
		L35: Concept of Inode, Hard and Soft links, Locate, read	24/Apr/2023			1 hours	01:00 PM - 02:00 PM
		L36: System documentation including man, info, and files in /usr/share/doc	25/Apr/2023			1 hours	02:00 PM - 03:00 PM

5	Configure Local Storage	L37: List, create, delete, and set partition type for primary, extended, and logical partitions	27/Apr/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	12:00 PM - 01:00 PM
		L38: Description of MBR & GPT	28/Apr/2023			1 hours	12:00 PM - 01:00 PM
		L39: Discussion about GRUB	01/May/2023			1 hours	01:00 PM - 02:00 PM
		L40: Create, mount, unmount, and use ext2, ext3, and ext4 file systems	02/May/2023			1 hours	02:00 PM - 03:00 PM
		L41: ReFS, configure systems to mount file systems at boot by Universally Unique ID (UUID) or label	04/May/2023			1 hours	12:00 PM - 01:00 PM
		L42: Concept of SWAP partition	05/May/2023			1 hours	12:00 PM - 01:00 PM
		L43: Concept of LUKS	08/May/2023			1 hours	01:00 PM - 02:00 PM
		L44: Create and remove physical volumes, assign physical volumes to volume groups	09/May/2023			1 hours	02:00 PM - 03:00 PM
		L45: Create and delete logical Volumes	11/May/2023			1 hours	12:00 PM - 01:00 PM
		L46: Configure local storage Create and configure	12/May/2023			1 hours	12:00 PM - 01:00 PM
		L47: Configure IPv4 addresses	15/May/2023			1 hours	01:00 PM - 02:00 PM
		L48: Configure network services to start automatically at boot	16/May/2023			1 hours	02:00 PM - 03:00 PM
		L49: How the Linux systems are connecting to each other & form a network	18/May/2023			1 hours	12:00 PM - 01:00 PM

6	IP connectivity with Linux	T2:	Theory Assignment 2	19/May/2023	Assignment	Assignment	1 hours	-
		L50:	How the Linux systems are connecting to each other & form a network	19/May/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	12:00 PM - 01:00 PM
		L51:	Brief idea of different types of Linux network services	22/May/2023			1 hours	01:00 PM - 02:00 PM
		L52:	Brief idea of different types of Linux network services Continuous Assessment - II	23/May/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK/ Continuous Assessment	discussion/ Evaluation	1 hours	02:00 PM - 03:00 PM
		L53:	Concept of network configuration file Flip Class - II	25/May/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK/ Flip Class	discussion/ Flip Class	1 hours	12:00 PM - 01:00 PM
		L54:	Concept of network configuration file	26/May/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	12:00 PM - 01:00 PM
		T2:	Theory Assignment 2 Submission	27/May/2023	Assignment	Assignment	1 hours	-
7	Package Management	L55:	Needs of packages & their types	29/May/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	01:00 PM - 02:00 PM
		L56:	Concept of rpm	30/May/2023			1 hours	02:00 PM - 03:00 PM
		CT2:	Class Test 2	01/Jun/2023	Internal Assessment	Evaluation	1 hours	-
		CT2:	Class Test 2	02/Jun/2023			1 hours	-
		CT2:	Class Test 2	03/Jun/2023			1 hours	-
		L57:	Concept of rpm	05/Jun/2023	PPT/LAPTOP/PROJECT OR/BOARD/CHALK	discussion	1 hours	01:00 PM - 02:00 PM
		L58:	Concept of YUM	06/Jun/2023			1 hours	02:00 PM - 03:00 PM
		L59:	Concept of YUM	08/Jun/2023			1 hours	12:00 PM - 01:00 PM
		L60:	Description of YUM	09/Jun/2023			1 hours	12:00 PM - 01:00 PM