NIRMA UNIVERSITY

Institute:	Institute of Technology
Name of Programme:	Integrated B.Tech.(CSE)-MBA
Course Code:	CSI0802
Course Title:	Mobile OS and Applications
Course Type:	Core
Year of Introduction:	2021-22

Credit Scheme

L	T	Practical Component				C
		LPW	PW	W	S	
2	0	4	-	-	-	4

Course Learning Outcomes (CLO):

At the end of the course, students will be able to –

- 1. compare the similarities, differences and benefits of the current mobile operating systems
- 2. explain the functionalities of remote operations and security essential of mobile devices
- 3. analyze the latest trends and application in building Mobile OS
- 4. demonstrate the native applications required to build using mobile OS

Syllabus: Total Teaching hours: 20

Unit	Syllabus	Teaching hours				
Unit-I	Introduction: Introduction to different operating system platforms, Windows Server, Windows Desktop, Linux servers, Android, Apple iOS.					
Unit-II	Installation of software operating system and configuration, identification and obtaining installation media as well as suitable hardware, installing software.					
Unit-III	End-to-end testing of operating systems (Windows, Linux), test remote management, login management, connectivity to network resources	02				
Unit-IV						
Unit-V	Security principles of operating systems, virtual servers and cloud services, user access control, malware protection, patch management	05				
Self-Stud	y: The self-study contents will be declared at the commer semester. Around 10% of the questions will be asked from contents					
Suggested Readings,		lete Guide,				
Reference	es: 2. Reto Meier, Professional Android 4 Application De Wrox Publication	evelopment,				
	3. Books Llc (Google online Books), Mobile Phone Operation	ing System:				

General Books LLCInstallation of Android studio.

4. Charlie Miller, Dion Blazakis, Dino DaiZovi, Stefan Esser, Vincenzo Iozzo, iOS Hacker's Handbook, Wiley publication

Suggested List of	Sr. No.	Title	Hours
Experiments:	1	A) Compare various Mobile operating systems with	04
		applications.	
		B) Summaries the native applications for different	
	_	operating systems	
	2	Write a shell script for implementing directory	04
	_	management. (In Linux OS).	
	3	Installation of Android studio and Development of	04
	4	Hello World Application	0.4
	4	Mobile application phase-I:	04
		Demonstration of simple UI with user activity	
		- To develop an application by using list view	
		and spinner view to list out some items on	
		screen by selecting any of the item's system	
		display complete information about that item. Also show addition and deletion of the	
		items from the spinner view.	
	5	A) Develop a native calculator application.	04
	J	B) Create an application that takes the name from a	04
		text box and shows a hello message along with the	
		name entered in text box, when the user clicks the	
		OK button.	
	6	Create a screen that has input boxes for User Name,	04
	O	Password, Address, Gender (radio buttons for male	0.
		and female), Age (numeric), Date of Birth	
		(Datepicker), State (Spinner) and a Submit button.	
		On clicking the submit button, print all the data	
		below the Submit Button (use any layout).	
	7	Mobile application phase-II:	04
		To show Communication between two Activity	
		through Intents:In first Activity take two inputs	
		from user send these two numbers or strings via	
		intent to second activity, perform the user defined	
		operations on these two numbers/strings in second	
		activity. Now sent back to first activity and show	
		the results to the user on first activity.	
	8	Develop an application that uses GUI components,	04
		Font and Colors.	
	9	To implement the security concepts when running	04
		an operating system running on a platform; with a	
		focus on physical hardware, virtual servers and	
		cloud services	

Suggested Case -NA-List: