

# Lesson Plans Computer Engg.

## Lesson Plan

**Name of faculty** : Narender Kumar  
**Discipline** : Computer Engineering  
**Semester** : 6th  
**Subject** : Mobile Application Development

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical day	Topic
1st	1st	Introduction : Evolution of Mobile Computing, Important terminologies,		Write a program to demonstrate activity (Application Life Cycle)
	2nd	Mobile computing functions, Mobile computing security issues		
	3rd	Mobile computing Devices, Networks: Wired , Wireless , Adhoc		
2nd	4th	Comparison of wired and wireless mechanism		Write a program to demonstrate different types of layouts
	5th	Various types of wireless communication technologies used in Mobiles		
	6th	Antennas , Basics of Base Station and Medium access control and Mobile station		
3rd	7th	Architecture : Architecture of Mobile Computing, 3- Tier Architecture		Write a program to implement simple calculator using text view, edit view, option button and button
	8th	Presentation ( Tier-1), Application ( Tier -2), Data ( Tier – 3)		
	9th	Mobile computing through Telephony: Evolution through telephony		
4th	10th	Wireless LAN: Introduction - Applications of WLAN, Infrared versus Radio Transmission		Write a program to demonstrate list view
	11th	Features of WI-FI and WI-MAX, Bluetooth : Introduction and application		
	12th	ANDROID : Android Versions, Features of Android, Architecture of Android		
5th	13th	Test 1		Write a program to demonstrate photo gallery.
	14th	Android Market, Android Runtime (Dalvik Virtual Machine)		
	15th	ANDROID SDK & ADT : Android SDK, Android Development Tool (ADT)		
6th	16th	Installing and configuring Android, Android Virtual Device (AVD)		Write a program to demonstrate Date picker and time picker
	17th	ACTIVITIES & INTENTS : Understanding Activites, Linking activities		
	18th	intents, Calling built-in applications using intents		
7th	19th	Fragments Displaying Notifications		Develop an simple application with context menu and option menu
	20th	Basic Views : Textview, Button, Image Button		
	21st	EditText, CheckBox, ToggleButton, RadioButton and RadioGroup Views		

8 <sup>th</sup>	22 <sup>nd</sup>	ProgressBar View, Auto Complete Text View		Develop an application to send SMS, Write a program to view, edit contact
	23 <sup>rd</sup>	Advanced Views : Time Picker View and Date Picker View		
	24 <sup>th</sup>	List Views, Image View, Menus		
9 <sup>th</sup>	25 <sup>th</sup>	Test2		Write a program to send e-mail, Write a program to demonstrate a service
	26 <sup>th</sup>	Analog and Digital View, Dialog Boxes		
	27 <sup>th</sup>	Displaying Pictures & Menus with Views: Image View		
10 <sup>th</sup>	28 <sup>th</sup>	Gallery View, ImageSwitcher, GridView - Creating the Helper Methods		Write a program to demonstrate web view to display web site
	29 <sup>th</sup>	Options Menu, Context Menu		
	30 <sup>th</sup>	SMS, Phone: Sending SMS, Receiving SMS		
11 <sup>th</sup>	31 <sup>st</sup>	Making phone call		Write a program to display map of given location/position using map view
	32 <sup>nd</sup>	Location Based Services : Obtaining the Maps API Key, Displaying the Map, Zoom Control		
	33 <sup>rd</sup>	Navigating to a specific location, Adding Marker, Geo Coding and reverse Geo coding		
12 <sup>th</sup>	34 <sup>th</sup>	Content Provider : Sharing data, view contacts		Write a program to demonstrate the application of intent class
	35 <sup>th</sup>	Add contacts, Modify contacts, Delete Contacts		
	36 <sup>th</sup>	Storage : Store and Retire data's in Internal and External Storage		
13 <sup>th</sup>	37 <sup>th</sup>	SQLite , Creating and using databases		Write a program to create a text file in a external memory
	38 <sup>th</sup>	Android Service : Consuming Web service using HTTP		
	39 <sup>th</sup>	downloading binary Data, Downloading Text Content		
14 <sup>th</sup>	40 <sup>th</sup>	Accessing Web Service		Write a program to store and fetch data from SQL life database.
	41 <sup>st</sup>	Class Variables, Inheritance		
	42 <sup>nd</sup>	Test 3		

## Lesson Plan

**Name of faculty** : Devender Saini  
**Discipline** :- Computer Sc. & Engg.  
**Semester** :- VIth  
**Subject** :- APPLICATION DEVELOPMENT USING WEB  
**FRAMEWORK**  
**Lesson Plan Duration** :- 15weeks

**Work load (Practical) per week (in hours) :- Practical-6**

**Note:- GI and GII are the respective Groups of students**

Week	Practical	
	Practical Group	Topic
Week 1	G-I	Practice on HTML, CSS, Java Script
	G-II	Practice on HTML, CSS, Java Script
	G-I	Practice on Ajax.PHP & MySql
	G-II	Practice on Ajax.PHP & MySql
Week 2	G-I	Install WordPress & Create Blogs
	G-II	Install WordPress & Create Blogs
	G-I	Practice
	G-II	Practice
Week 3	G-I	Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection
	G-II	Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection
	G-I	Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection
	G-II	Manage blogs features e.g. Images, Text Around Images, Comments, Post Formats, Linking, Pages, Categories, Smilies, Feeds, Gravatars, Password Protection
Week 4	G-I	Practice / viva
	G-II	Practice / viva
	G-I	Practice various designing features: Colour Scheme, Headers, CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print
	G-II	Practice various designing features: Colour Scheme, Headers, CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print

Week 5	G-I	Practice various designing features: Colour Scheme, Headers, CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print
	G-II	Practice various designing features: Colour Scheme, Headers, CSS Horizontal Menus, Dynamic Menu, Highlighting, Navigation Links, Print
	G-I	Read More, Formatting Date and Time, Finding CSS Styles, Creating Individual Pages
	G-II	Read More, Formatting Date and Time, Finding CSS Styles, Creating Individual Pages
Week 6	G-I	Uploading Files, Using WordPress Themes, Templates, Template Tags, Template Hierarchy,
	G-II	Uploading Files, Using WordPress Themes, Templates, Template Tags, Template Hierarchy
	G-I	Practice
	G-II	Practice
Week 7	G-I	Validating a Website, Know Your Sources, WordPress Site Maintenance
	G-II	Validating a Website, Know Your Sources, WordPress Site Maintenance
	G-I	Validating a Website, Know Your Sources, WordPress Site Maintenance
	G-II	Validating a Website, Know Your Sources, WordPress Site Maintenance
Week 8	G-I	Integrate PHP & MySql with WordPress
	G-II	Integrate PHP & MySql with WordPress
	G-I	Practice
	G-II	Practice
Week 9	G-I	Install Moodle & various plugins
	G-II	Install Moodle & various plugins
	G-I	Create a Moodle site and Database Schema
	G-II	Create a Moodle site and Database Schema
Week 10	G-I	Create a Moodle site and Database Schema
	G-II	Create a Moodle site and Database Schema
	G-I	Design Site appearance, Front page, Front page settings
	G-II	Design Site appearance, Front page, Front page settings
Week 11	G-I	My Moodle, User profiles, Navigation, Course list, Themes, Theme settings, Header and footer, Language settings
	G-II	My Moodle, User profiles, Navigation, Course list, Themes, Theme settings, Header and footer, Language settings
	G-I	Using web services, Publishing a course, Blogs, RSS feeds
	G-II	Using web services, Publishing a course, Blogs, RSS feeds
Week 12	G-I	Practice / viva
	G-II	Practice / viva
	G-I	Manage Moodle site, Managing authentication, Manual accounts, No login
	G-II	Manage Moodle site, Managing authentication, Manual accounts, No login
Week 13	G-I	Email-based self-registration, Account
Week 14		Revision
Week 15		Revision

## Lesson Plan

Name of Faculty : Seema Ahlawat  
**Discipline** : Computer Engg.  
**Semester** : 6<sup>th</sup>  
 Subject : Network Security  
**Lesson Plan Duration** : 15 weeks

**Work Load (Lecture / Practical) per week (in hours):** Lectures-03, Practical-03

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	Need for securing a network	1 <sup>st</sup>	Study of various hacking tools.
	2 <sup>nd</sup>	Principles of Security, Type of attacks		
	3 <sup>rd</sup>	Introduction to cyber crime, Cyber law-Indian Perspective (IT Act 2000 and amended 2008)		
2 <sup>nd</sup>	4 <sup>th</sup>	Cyber ethics, Ethical hacking		
	5 <sup>th</sup>	What is hacking?		
	6 <sup>th</sup>	Attacker, Phreaker		
3 <sup>rd</sup>	7 <sup>th</sup>	Introduction to basic encryption and decryption	2 <sup>nd</sup>	Installation and comparison of various anti virus software
	8 <sup>th</sup>	Concept of symmetric and asymmetric key cryptography		
	9 <sup>th</sup>	Overview of DES,		
4 <sup>th</sup>	10 <sup>th</sup>	Overview of RSA		
	11 <sup>th</sup>	Overview of PGP		
	12 <sup>th</sup>	Introduction to Hashing		
5 <sup>th</sup>	13 <sup>th</sup>	Introduction to MD5		
	14 <sup>th</sup>	Introduction to SSL (Secure Sockets Layer)		
	15 <sup>th</sup>	Introduction to SSH (Secure Shell)		
6 <sup>th</sup>	16 <sup>th</sup>	Introduction to HTTPS (Hyper Text Transfer Protocol Secure)	3 <sup>rd</sup>	Practical applications of digital signature.
	17 <sup>th</sup>	Digital Signature		
	18 <sup>th</sup>	Digital Certification, IPSec		
7 <sup>th</sup>	19 <sup>th</sup>	Definitions Virus, Worms and Trojans	4 <sup>th</sup>	Writing program in C to Encrypt/
	20 <sup>th</sup>	Preventive measures access central		

Week	Theory		Practical			
	Lecture day	Topic (including assignment / test)	Practical Day	Topic		
8 <sup>th</sup>	21 <sup>st</sup>	Checksum verification		Decrypt using XOR key		
	22 <sup>nd</sup>	Process configuration,				
	23 <sup>rd</sup>	Virus scanners				
	24 <sup>th</sup>	Heuristic scanners				
9 <sup>th</sup>	25 <sup>th</sup>	Application level virus scanners	5 <sup>th</sup>	Installation and study of various parameters of firewall		
	26 <sup>th</sup>	Deploying virus protection				
	27 <sup>th</sup>	Definition and types of firewalls				
10 <sup>th</sup>	28 <sup>th</sup>	Firewall configuration				
	29 <sup>th</sup>	Firewall configuration				
	30 <sup>th</sup>	Limitations of firewall				
11 <sup>th</sup>	31 <sup>st</sup>	Introduction to Intrusion Detection System (IDS) IDS limitations				
	32 <sup>nd</sup>	Teardrop attacks				
	33 <sup>rd</sup>	Counter measures, Host based IDS set up				
12 <sup>th</sup>	34 <sup>th</sup>	Handling Cyber Assets				
	35 <sup>th</sup>	Configuration policy as per standards				
	36 <sup>th</sup>	Disposable policy				
13 <sup>th</sup>	37 <sup>th</sup>	Basics of Virtual Private Network (VPN)			6 <sup>th</sup>	Study of VPN
	38 <sup>th</sup>	Setting of VPN				
	39 <sup>th</sup>	VPN diagram				
14 <sup>th</sup>	40 <sup>th</sup>	Configuration of required objects,				
	41 <sup>st</sup>	Exchange Keys, Modifying security policy				
	42 <sup>nd</sup>	Disaster categories network disasters server disasters				
15 <sup>th</sup>	43 <sup>rd</sup>	Cabling, topology, single point of failure				
	44 <sup>th</sup>	Save configuration files, UPS, RAID,				
	45 <sup>th</sup>	Clustering, Backups, server recovery				

