



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	B.Tech and CSE		
Course Title	MOBILE APPLICATIONS DEVELOPMENT		
Course Code	CSPC37	No. of Credits	3
Course Code of Pre-requisite subject(s)	CSPC32	Semester	VI
Session	January 2020	Section (if, applicable)	A
Name of Faculty	Mrs. V. DHIVYA	Department	CSE
Email	vdhivya@nitt.edu	Telephone No.	
Name of Course Coordinator(s) (if, applicable)	NIL		
E-mail	NIL	Telephone No.	NIL
Course Type	<input checked="" type="checkbox"/> Core course <input type="checkbox"/> Elective course		

Syllabus (approved in BoS) - MOBILE APPLICATIONS DEVELOPMENT

Unit – I -Introduction to Android: Native Android Application; SDK Features; Introduction to Open Handset Alliance; Development Framework; Application Fundamentals; Device Compatibility; System permissions.

Unit – II - User Interface and Application Components: Basic UI Design; Fragments; Widget Toolbox; Creating New View; Introduction to Intents ; Intent Filters and broadcast Receivers; Activities; Services; Content Providers; Application Widgets; Processes and Threads.

Unit – III - Files and Database Handling: Saving Application Data; Shared Preferences; Preference Framework and Activity; Static File as Resource; File System; Introduction to SQLite Database; Querying SQLite; Storage options; Data backup

Unit – IV - User Experience Enhancement: Action Bar; Menus and Action Bar Items; Settings; Dialogs; Customizing Toast; Notifications; Search; Drag and Drop

Unit – V - Multimedia, Wireless Connectivity and Telephony: Audio and Video Handling; Manipulating Raw Audio; Sound Effects; Camera Programming; Video Recording; Managing Wireless Connectivity : WiFi, Bluetooth, Near Field Communication; Hardware Support for Telephony; Telephony Management; SMS and MMS



Text Books

1. Reto Meier, "Professional Android 4 Application Development", Wrox, 2012
2. Matt Gifford, "PhoneGap Mobile Application Development Cookbook", PACKT, 2012
3. Adrian Kosmaczewski, "Mobile JavaScript Application Development", O'RELLY, 2012
4. <http://developer.android.com/>
5. http://www.tutorialspoint.com/mobile_development_tutorials.htm

COURSE OBJECTIVES

- To learn the basics of mobile application development
- To get accustomed to Android platform
- To develop skills in developing basic Android applications

COURSE OUTCOMES (CO)

- Ability to comprehend Android platform and its usefulness in application development
- Ability to acquire skill set to execute applications in Android based devices
- Ability to design and develop deployable Android applications

Course Outcome (CO)	
Ability to comprehend Android platform and its usefulness in application development	PO1,P02
Ability to acquire skill set to execute applications in Android based devices	PO1,PO2,PO3,PO5,PO8
Ability to design and develop deployable Android applications	PO2,PO3,PO6,PO7,PO8

COURSE PLAN – PART II

COURSE OVERVIEW

This course deals with various techniques and technologies to develop mobile applications

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week	Topic	Mode of Delivery
1.	1	Introduction to Android: Native Android Application; SDK Features; Introduction to Open Handset Alliance;	PPT / Chalk and Talk
2.	2	Development Framework; Application Fundamentals	PPT / Chalk and Talk
3.	3	Device Compatibility; System permissions.	PPT / Chalk and Talk



4.	4	User Interface and Application Components: Basic UI Design;; Introduction to Intents ; Intent Filters and broadcast Receivers;	PPT / Chalk and Talk
5.	5	Fragments; Widget Toolbox; Creating New View	PPT / Chalk and Talk
6.	6	Activities; Services; Content Providers; Application Widgets; Processes and Threads	PPT / Chalk and Talk
7.	7	Files and Database Handling: Saving Application Data; Shared Preferences	PPT / Chalk and Talk
8.	8	Preference Framework and Activity; Static File as Resource; File System	PPT / Chalk and Talk
9.	9	Introduction to SQLite Database; Querying SQLite; Storage options; Data backup	PPT / Chalk and Talk
10.	10	User Experience Enhancement: Action Bar; Menus and Action Bar Items;	PPT / Chalk and Talk
11.	11	Settings; Dialogs; Customizing Toast; Notifications;	PPT / Chalk and Talk
12.	12	Search; Drag and Drop	PPT / Chalk and Talk
13.	13	Multimedia, Wireless Connectivity and Telephony: Audio and Video Handling; Manipulating Raw Audio; Sound Effects;	PPT / Chalk and Talk
14.	14	Camera Programming; Video Recording; Managing Wireless Connectivity : WiFi, Bluetooth, Near Field Communication;	PPT / Chalk and Talk
15.	15	Hardware Support for Telephony; Telephony Management; SMS and MMS	PPT / Chalk and Talk

COURSE ASSESSMENT METHODS-THEORY

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Cycle Test-1	3 rd week of feb	1 hour	20
2	Cycle Test-2	1 st week of april	1 hour	20
3	Assignment	2 nd week of april		10
CPA	Compensation Assessment	4 th week of april	1 hour	20
3	Final Assessment* Theory	2 nd week of may	3 hours	50
TOTAL				100%
*mandatory				



COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)

1. Students' feedback through class committee meetings.
2. Feedback questionnaire from students – from MIS at the end of the semester.

COURSE POLICY (preferred mode of correspondence with students, compensation assessment policy to be specified)

MODE OF CORRESPONDENCE (email/ phone etc)

Mode of Correspondence through Phone.

COMPENSATION ASSESSMENT POLICY

Compensation assessment will be conducted for absentees in cycle test 1 or cycle test 2 only after the submission of medical or on duty certificates signed by competent authority. The portions for compensation assessment will be the portions of cycle test 1 and cycle test 2.

ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)

- At least 75% attendance in each course is mandatory.
- A maximum of 10% shall be allowed under On Duty (OD) category.
- Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

ACADEMIC DISHONESTY & PLAGIARISM

- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.

The above policy against academic dishonesty shall be applicable for all the programmers.

ADDITIONAL INFORMATION

The students can get their doubts clarified at any time with their faculty member.

FOR APPROVAL

Course Faculty V. Shiny 23/11/2020 CC-Chairperson Amelbhan 24/11/2020 HOD Jha 27/11/2020



Guidelines

- a) The number of assessments for any theory course shall range from 4 to 6.
- b) Every theory course shall have a final assessment on the entire syllabus with at least 30% weightage.
- c) One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered.
- d) The passing minimum shall be as per the regulations.

B.Tech. Admitted in				P.G.
2018	2017	2016	2015	
35% or (Class average/2) whichever is greater.		(Peak/3) or (Class Average/2) whichever is lower		40%

- e) Attendance policy and the policy on academic dishonesty & plagiarism by students are uniform for all the courses.
- f) Absolute grading policy shall be incorporated if the number of students per course is less than 10.
- g) Necessary care shall be taken to ensure that the course plan is reasonable and is objective.