



National Computing Education Accreditation Council NCEAC



NCEAC.DOC.001-E

COURSE DESCRIPTION

NAME OF INSTITUTION	Lahore Garrison University
PROGRAM (S) TO BE EVALUATED	Computer Science , Spring 2022

Course Description : The course introduces students to develop applications for mobile devices, including smartphones and tablets. Students will design and build a variety of Apps throughout the course to reinforce learning and to develop real competency.

Course Code	CSC399																	
Course Title	Mobile Application Development																	
Credit Hours	3+0																	
Prerequisites by Course(s) and Topics	Object Oriented Programming																	
Assessment Instruments with Weights (homework, quizzes, midterms, final, programming assignments, lab work, etc.)	SESSIONAL (Quizzes, Assignments, Presentations) =25 % Midterm Exam =25 % Final Exam = 50%																	
Course Coordinator	Khurram Yussouf Tehseen																	
URL (if any)	https://sites.google.com/site/androidappcourse/labs/lab http://developer.android.com/guide/topics/graphics/index.html https://developer.android.com/guide/components/fragments.html http://developer.android.com/guide/topics/data/data-storage.html http://developer.android.com/guide/topics/sensors/index.html																	
Current Catalog Description	The course introduces students to develop applications for mobile devices, including smartphones and tablets. Students will design and build a variety of Apps throughout the course to reinforce learning and to develop real competency.																	
Textbook (or Laboratory Manual for Laboratory Courses)	1. Android Wireless Application Development, third edition, Lauren Darcey, Shane Conder, Addison Wesley, 2012, ISBN 0321813839 2. Mobile Design and Development: Practical concepts and techniques for creating mobile sites and web apps, by Brian Fling Publisher: O'Reilly Media, 2009. (2011). ISBN-10: 1428851755																	
Reference Material	1. Android Application Development Cookbook By Wei Meng Lee, 2nd Edition, ISBN 978-1-118-17767-9 2. Mark L. Murphy "Beginning Android 2", Apress, 1st Edition, ISBN 978-1-4302-2629-1 3. Horton, J. (2015). Android Programming for Beginners (Latest ed.). Packt Publishing Ltd. 4. Phillips, B., & Hardy, B. (2013). Android programming: the beginners guide (Latest ed.). Pearson Education. 5. Lee, W. M. (2012). Beginning android 4 application Development (Latest ed.). John Wiley & Sons.																	
Course Goals																		
Course Learning Outcomes (CLOs):	<table><tr><th>At the end of the course the students will be able to:</th><th>Domain</th><th>BT Level*</th></tr><tr><td>Discuss different architectures & framework for Mobile Application development.</td><td>C</td><td>1</td></tr><tr><td>Develop mobile applications using current software development environments.</td><td>C</td><td>3</td></tr><tr><td>Compare the different performance tradeoffs in mobile application development.</td><td>C</td><td>3</td></tr><tr><td colspan="3">* BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain</td></tr></table>			At the end of the course the students will be able to:	Domain	BT Level*	Discuss different architectures & framework for Mobile Application development.	C	1	Develop mobile applications using current software development environments.	C	3	Compare the different performance tradeoffs in mobile application development.	C	3	* BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain		
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Topics Covered in the Course, with Number of Lectures on Each Topic (assume 15-week instruction and one-hour lectures)	Week	Lecture	Topics Covered
	Week 1	1	Introduction to Android
		2	Class, Object, Abstraction
	Week 2	3	Polymorphism, Inheritance
		4	First Android App
	Week 3	5	Layout and Resources for UI
		6	Text and Scrolling Views
	Week 4	7	Activities and Intents
		8	Activity lifecycle and state
	Week 5	9	Implicit Intents
		10	Buttons and Clickable Images
	Week 6	11	Input Controls
		12	Menus and Pickers
	Week 7	13	User Navigation
		14	Broadcast Receiver
	Week 8	1 hours	Mid Term
	Week 9	15	Drawables, Styles and Themes
		16	Fragments and their lifecycle
	Week 10	17	Sound Recorder App
		18	Sending Email App
	Week 11	19	What is Data Persistency
		20	Shared Preferences
	Week 12	21	Android Internal Storage
		22	Android External Storage
	Week 13	23	SQLite Database Part 1
		24	SQLite Database Part 2
	Week 14	25	Handling Database Issue
		26	Recycler View
	Week 15	27	Handling of Options Menu
		28	Handling of Context Menu
	Week 16	29	Recycler View
		30	Material Design
	Week 17	2 hours	Final Term
Laboratory Projects/Experiments Done in the Course			
Programming Assignments Done in the Course			

Instructor Name	Khurram Yussouf Tehseen
Instructor Signature	
Date	