

<b>Course Title</b>	<b>Mobile Application Development</b>		
<b>Course Code</b>	<b>EI-333</b>		
<b>Credit Hours</b>	2 (2,0)		
<b>Category</b>	Domain Elective		
<b>Prerequisite</b>	CC-211: Object Oriented Programming		
<b>Co-Requisite</b>	None		
<b>Follow-up</b>	None		
<b>Course Learning Outcomes (CLOs)</b>	At the end of the course, the students will be able to:	<b>BT</b>	<b>PLO</b>
	CLO1: Explain characteristics of mobile application.	C2 (Explain)	1,2
	CLO2: Use Android platform for application development.	C3 (Apply)	1,2,3
	CLO3: Identify potential and applications of data storage technologies.	C4 (Identify)	1,2,3
	CLO4: Use Android Native Development Kit in a mobile application development.	C3 (Apply)	3,4,5
<b>Syllabus</b>	<p><b>Introduction:</b> Mobile Computing Domain, Comparison of different Mobile Platforms, Revision of Java. <b>Android Platform:</b> Dalvik Virtual Machine, Android Constructs (Activity, Intent, Content Provider, Service, Broadcast Receiver), Activity Lifecycle, Project Structure, Manifest File, Emulators (AVD), Debugging (DDMS), R.java, Inter Activity Communication (Intent), Event Handlers, Layout XML, @ Sign, Layouts, Adapters, Dynamic Lists, Holder Pattern, Menus and dialogs, Menu, Menu Group, Menu Item, Icon Menu, Sub Menu, Context Menu, Sub Menu, Dynamic Menu, Using XML Files for Menus, Services, Intents. <b>Data Storage:</b> Key Value Sets, Files, Intro to SQLite, Web Service Integration, JSON, HTTPClient, Graphics, Widgets &amp; Notifications, Multimedia and telephony API, Android Native Development Kit (NDK).</p>		
<b>Suggested Instructional/ Reading Material</b>	<ol style="list-style-type: none"> <li>1. Mark L. Murphy, Beginning Android 2, Apress, ISBN 978-1-4302-2629-1</li> <li>2. Zigurd Mednieks, Laird Dornin, G. Blake Meike, and Masumi Nakamura Programming Android, 2<sup>nd</sup> Edition, O Reilly Press, ISBN: 978-1-449-31664-8</li> <li>3. Syed Hashmi, Satya Komatineni, Dave Maclean, Pro Android 2, Apress, ISBN 978-1-4302-2659-8</li> <li>4. <a href="http://developer.android.com/develop/index.htm">http://developer.android.com/develop/index.htm</a></li> <li>5. <a href="http://developer.android.com/guide/components/services.html">http://developer.android.com/guide/components/services.html</a></li> <li>6. <a href="http://developer.android.com/guide/components/intents-filters.html">http://developer.android.com/guide/components/intents-filters.html</a></li> <li>7. <a href="http://developer.android.com/guide/topics/data/data-storage.html">http://developer.android.com/guide/topics/data/data-storage.html</a></li> <li>8. <a href="http://developer.android.com/guide/topics/graphics/index.html">http://developer.android.com/guide/topics/graphics/index.html</a></li> <li>9. <a href="http://developer.android.com/guide/topics/sensors/index.html">http://developer.android.com/guide/topics/sensors/index.html</a></li> </ol>		