

## COSC 435 - Mobile Application Development Fall 2024 Schedule

Date	Topic	Assignments	Labs	Reading
8/26	Lecture - Class Introduction & Responsibilities Android Overview, Android Studio Intro, Version Control (Git and Bitbucket)  <b>101- In Person</b> <b>102 - Online</b>	Assignment 1 (Environment Setup/Android Tutorial) - Due 9/9 Assignment 2 (Kotlin Koans and Programming Task) - Due 9/23	Lab 1 - Git	<a href="https://git-scm.com/docs/gittutorial">https://git-scm.com/docs/gittutorial</a>
9/2	<b>No Class - Labor Day</b>			
9/9	Kotlin (Functions, Classes, Lambdas and Lists), Android Studio, Project Structure, Android Tools, Android Emulator  Git - Branches and merging  <b>101 - Online</b> <b>102 - In person</b>	Assignment 1 - Due  Project Proposal Assigned.	Lab 2 - Kotlin console app	<a href="https://kotlinlang.org/docs/reference/basic-syntax.html">https://kotlinlang.org/docs/reference/basic-syntax.html</a>  <a href="https://kotlinlang.org/docs/control-flow.html">https://kotlinlang.org/docs/control-flow.html</a>  <a href="https://kotlinlang.org/docs/classes.html">https://kotlinlang.org/docs/classes.html</a>
9/16	Lecture - Jetpack Compose - Columns, Rows, Box, Modifiers  <b>101 - In Person</b> <b>102 - Online</b>	Assignment 2 - Due  Assignment 3 - Assigned - Due 9/30	Lab 3 - Recreate "Add song" form	<a href="https://developer.android.com/jetpack/compose/mental-model">https://developer.android.com/jetpack/compose/mental-model</a>  <a href="https://developer.android.com/jetpack/compose/layouts/basics">https://developer.android.com/jetpack/compose/layouts/basics</a>  <a href="https://developer.android.com/jetpack/">https://developer.android.com/jetpack/</a>

				<a href="#">compose/modifiers</a>
9/23	Lecture - Compose Events, MutableState, Themes, Material3  <b>101 - Online</b> <b>102 - In Person</b>	Project Proposal and requirements due.  Assignment 4 - Tip Calculator - Assigned - Due 10/7	Lab 4 - Temperature Conversion App	<a href="https://developer.android.com/jetpack/compose/state">https://developer.android.com/jetpack/compose/state</a>  <a href="https://developer.android.com/jetpack/compose/designsystems/material3">https://developer.android.com/jetpack/compose/designsystems/material3</a>
9/30	Lecture - Lists, State Hoisting  <b>101 - In Person</b> <b>102 - Online</b>		Lab 5 - Songs app - Song list	<a href="https://developer.android.com/jetpack/compose/lists">https://developer.android.com/jetpack/compose/lists</a>  <a href="https://developer.android.com/guide/topics/resources/providing-resources">https://developer.android.com/guide/topics/resources/providing-resources</a>
10/7	Lecture - State (ViewModels, LiveData, Lifecycle, Orientation)  <b>101 - Online</b> <b>102 - In Person</b>	Assignment 4 - Tip Calculator - Due  Assignment 5 - ViewModels, Lists and Modals - Assigned - Due 10/28	Lab 6 - Refactor songs app to use ViewModels	<a href="https://developer.android.com/jetpack/compose/architecture">https://developer.android.com/jetpack/compose/architecture</a>  <a href="https://developer.android.com/guide/components/activities/activity-lifecycle">https://developer.android.com/guide/components/activities/activity-lifecycle</a>
10/14	Lecture - Navigation  <b>101 - In Person</b> <b>102 - Online</b>		Lab 7 - Simple Navigation	<a href="https://developer.android.com/jetpack/compose/navigation">https://developer.android.com/jetpack/compose/navigation</a>

10/21	Lecture - Coroutines  <b>101 - Online</b> <b>102 - In Person</b>	Prototype #1 demo due	Lab 8 - Run code in the background	<a href="https://developer.android.com/training/multiple-threads">https:// developer.android.com/training/ multiple-threads</a>  <a href="https://developer.android.com/jetpack/compose/side-effects">https:// developer.android.com/jetpack/ compose/side- effects</a>
10/28	Lecture - Persistence (Files, DataStore and Room)  <b>101 - In Person</b> <b>102 - Online</b>	Assignment 5 - ViewModels, Lists and Modals - Due  Assignment 6 - Navigation App - Assigned - Due 11/25	Lab 9 - Save Songs in a database	<a href="https://developer.android.com/training/data-storage/room">https:// developer.android.com/training/ data-storage/ room</a>  <a href="https://developer.android.com/training/data-storage/shared-preferences">https:// developer.android.com/training/ data-storage/ shared- preferences</a>
11/4	Lecture - Networking (REST, JSON, HTTP) and Images  <b>101 - Online</b> <b>102 - In Person</b>		Lab 10 - Make a REST API call and parse JSON	<a href="https://developer.android.com/training/basics/network-ops/">https:// developer.android.com/training/ basics/network- ops/</a>  <a href="https://developer.android.com/training/volley">https:// developer.android.com/training/ volley</a>
11/11	Lecture - WorkManager, Notifications  <b>101 - In Person</b> <b>102 - Online</b>		Lab 11 - Fetch data from a Service	<a href="https://developer.android.com/guide/components/services">https:// developer.android.com/guide/ components/ services</a>  <a href="https://developer.android.com/topic/libraries/architecture/">https:// developer.android.com/topic/ libraries/ architecture/</a>

				<a href="#">workmanager</a>
11/18	Lecture - Notifications  <b>101 - Online</b> <b>102 - In Person</b>	Prototype #2 demo due.		<a href="https://developer.android.com/guide/topics/permissions/overview">https://developer.android.com/guide/topics/permissions/overview</a>  <a href="https://developer.android.com/guide/components/intents-filters">https://developer.android.com/guide/components/intents-filters</a>  <a href="https://developer.android.com/training/basics/intents">https://developer.android.com/training/basics/intents</a>
11/25	Lecture - Intents and Permissions  <b>101 - In Person</b> <b>102 - Online</b>	Assignment 6 - Navigation App - Due	Lab 12 - Open another app	<a href="https://developer.android.com/guide/topics/permissions/overview">https://developer.android.com/guide/topics/permissions/overview</a>  <a href="https://developer.android.com/guide/components/intents-filters">https://developer.android.com/guide/components/intents-filters</a>  <a href="https://developer.android.com/training/basics/intents">https://developer.android.com/training/basics/intents</a>
12/2	Lecture - Content Providers / Broadcast Receivers  <b>101 - Online</b> <b>102 - In Person</b>		Lab 14 - Query a Content Provider	<a href="https://developer.android.com/guide/topics/providers/content-providers">https://developer.android.com/guide/topics/providers/content-providers</a>
12/9	Project Presentations / Review	Project Due		

12/16	Final Exam	7:30pm-9:30pm		
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