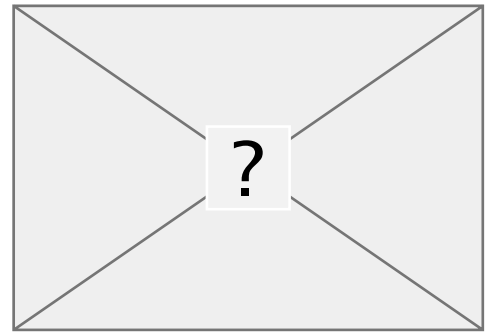


# CS 402: Mobile App Development - Spring 2020



---

## Course Description

A project intensive course on mobile development using Android or iOS platforms. Overview of mobile platforms and their characteristics, mobile interface design and best practices using such technologies as GPS, camera, persistence, and more.

---

## Objectives

1. Become proficient in the major technologies and paradigms of mobile application development, specifically for Android.
2. Develop experience creating real world mobile applications.

---

## Requirements

The following items are required for this class:

- Android Studio: <http://developer.android.com/sdk/index.html>
  - Or, as part of the JetBrains Toolbox (free for students): [jetbrains.com/student/](http://jetbrains.com/student/)
- Github Account: <http://www.github.com>

---

## Recommendations

The following are not required but will help in developing mobile applications:

- [Free lynda.com Account](#) - Free Boise Public Library card needed (Need Boise mailing address)
- Broad Topic Guide: [Android Programming Concepts](#)
- A physical Android tablet or smartphone
- [Android Developer Account](#) (\$25)

# Schedule

Section	Date	Description	Assignment Due
	Jan. 14	Introduction to the Android platform, Android Studio and Kotlin.	
	Jan. 16	Android platform architecture: Overview, Manifest, Intents and Activities Lifecycle, Strings, Interface layouts	
Kotlin Basics	Jan. 21	Intro to Kotlin	
	Jan. 23	Kotlin	HW #1
	Jan. 28	Intents and Second Activity	
Android Basics	Jan. 30	First Real Android App	
	Feb. 4	Architecture, Singletons, Factories	
	Feb. 6	Interface Design, UX, HCI	
	Feb. 11	App Store Marketing and Revenue	HW #2
	Feb. 13	Web Services	
Mobile Features	Feb. 18	Observer Pattern, EventBus	Project 1
	Feb. 20	Fragments	Project 1
	Feb. 25	Permissions, Camera	
	Feb. 27	Maps, Locations and GPS	
	Mar. 3	Databases on Android	
	Mar. 5	Databases on Android	HW # 3 - tentative

Section	Date	Description	Assignment Due
Optionals	Mar. 10	Servers	
	Mar. 12	2D Mobile Game Development	
	Mar. 17	3D Mobile Game Development	Project 2 - Web Services
	Mar. 19	TBD	
	Mar. 24	Spring Break	
	Mar. 26	Spring Break	
	Mar. 31	TBD	
	Apr. 2	TBD	Project 3 - Databases
	Apr. 7	Google Play Store	
	Apr. 9	Android Jet Pack	
	Apr. 14	TBD	
	Apr. 16	TBD	Project 4
	Apr. 21	TBD	
	Apr. 23	Workshop	
	Apr. 28	Project Presentations	
	Apr. 30	Project Presentations	
	May 5	No Class	Final Project (Project 5)

Attendance (5%) 5%

Homework (30%) 5% HW #1  
 5% HW #2  
 5% HW #3

Projects (70%) 10% Project 1  
 10% Project 2  
 15% Project 3  
 20% Project 4  
 25% Final Project

---

## Suggested Readings

### Android Programming Getting Started

<http://developer.android.com/training/index.html>

---

## Links

### Class Git Repository

Class repository with all assignments, class notes, example code, etc.