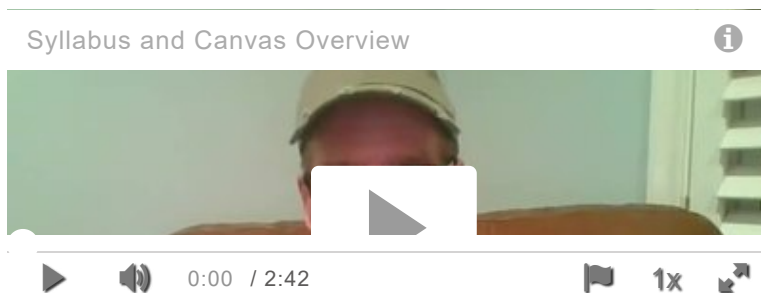


Course Syllabus

HEDU 5420/6220



Introductory Android App Making

Summer 2020, 3 Credits, ONLINE

*This course satisfies the Qualitative Reasoning B (QB) General Education requirements of the University of Utah, including [Quantitative Literacy](http://ugs.utah.edu/static-content/humis/docs/organization-269-1234543701.pdf) [.\(http://ugs.utah.edu/static-content/humis/docs/organization-269-1234543701.pdf\)](http://ugs.utah.edu/static-content/humis/docs/organization-269-1234543701.pdf) and [Problem Solving](http://ugs.utah.edu/static-content/humis/docs/organization-269-1234543827.pdf) [.\(http://ugs.utah.edu/static-content/humis/docs/organization-269-1234543827.pdf\)](http://ugs.utah.edu/static-content/humis/docs/organization-269-1234543827.pdf), and [Foundations and skills for lifelong learning](http://ugs.utah.edu/static-content/humis/docs/organization-269-1234544107.pdf). [.\(http://ugs.utah.edu/static-content/humis/docs/organization-269-1234544107.pdf\)](http://ugs.utah.edu/static-content/humis/docs/organization-269-1234544107.pdf)

**This course satisfies the Community Engaged Learning (CEL) requirements of the University of Utah.

Instructor:

Rich Interdonato, Ph.D.

[Assistant Professor](https://faculty.utah.edu/u0208259-RICHARD_SCOTT_INTERDONATO/biography/index.html) [.\(https://faculty.utah.edu/u0208259-RICHARD_SCOTT_INTERDONATO/biography/index.html\)](https://faculty.utah.edu/u0208259-RICHARD_SCOTT_INTERDONATO/biography/index.html)

rich.interdonato@utah.edu

rinterdonato@gmail.com

(801) 987-0606

Office Hours: By Appointment

Text

[AppInventor 2: Create Your Own Android Apps by David Wolber, Hal Abelson, Ellen Spertus, Liz Looney \(2014\)](http://amzn.to/1CSIJKj) [.\(http://amzn.to/1CSIJKj\)](http://amzn.to/1CSIJKj)

Prerequisites

None. **NO PROGRAMMING EXPERIENCE REQUIRED!**

**However, in this course you will learn to program Android (not iOS) apps using App Inventor, a browser-based development environment for Android development. Comfort using browser based "drag and drop" tools is very helpful, but not required.*

Please note that there are three things that you will need to create apps in this class:

1. Android Smartphone with operating system version 2.3 (Gingerbread) or higher
2. PC or Mac computer with a Chrome, Firefox, or Safari browser
3. Wi-fi connection that both the above smartphone and computer can simultaneously connect to each other with.

Course Description/Purpose

There are currently more mobile phone subscriptions than there are people on the planet (http://www.gsamobileeconomy.com/GSMA_Global_Mobile_Economy_Report_2015.pdf), and there seems to be an "app" for just about everything imaginable. **Android remains the dominant (80+%) mobile operating system** (<https://qz.com/826672/android-goog-just-hit-a-record-88-market-share-of-all-smartphones/>), and is especially pervasive in developing countries. With each passing day it becomes more and more likely that some type of Android application will be the most appropriate tool to solve problems for users, communities, and populations. This possibility (*and perhaps inevitability*) provides a powerful incentive to become comfortable with the development of Android mobile applications.

Furthermore, these statistics make it abundantly clear that **right now there is an unprecedented opportunity to meaningfully contribute to the Android mobile app market**. Consumers eagerly anticipate new apps, and as they become even more dependent on their apps for solutions, they will find new problems for them to solve. As tech-savvy app inventing professionals, we are not limited to *using* mobile technologies, nor are we limited to simply recommending the mobile apps of others. We can **create** them - no, we **MUST** create them based on our professional expertise - and that is exactly what this class is all about.

Objectives

Upon completion of the course, the students should be able to:

1. Modify and create mobile applications for the Android platform
2. Be able to identify, understand, explain, and use the "moving parts" of mobile apps as well as how they can be leveraged to effectively engage with users and communities
3. Recognize opportunity for new community focused mobile applications that they may either commission or create
4. Contribute their individual expertise and creativity to the burgeoning market of mobile applications to address specific population and community issues.

Course Modules

This course is set up as a series of modules. In each, we will explore various aspects and features of mobile app development. We will also identify community and population issues that can be addressed using the technology that we are learning about. Within each module you will be required to identify and reflect upon how technology can be used to address the specific community or population issues that you care most about.

Evaluation

Graduate students (section 6220) will be required to submit a custom mobile application that addresses a community issue (150 points). They will also provide a (5-7 page) paper (100 points) that describes in detail the community issue their app addresses, as well as how their app serves the community as a solution. This paper should thoroughly describe the issue, the potential benefits that may be realized by its successful adoption, a specification about what the app does, and how it should be operated (and tested by the instructor).

Points Possible:

Graded Activity	Undergraduate Points	Graduate Points
Assignments	1010	1010
Discussions	260	260
Graduate Custom App	0	150
Graduate App Paper	0	100
Total	1270	1520

At the end of the semester, grades will be calculated as by dividing the points earned by the number of points possible. For undergraduate students, there are expected to be 1220 points possible. Graduate students have two (2) additional projects during the semester and therefore the number of points possible is 1470. The table below maps grade letters to percentage values. If you earn 94% of the available points or more, you will earn an A in this class.

Grading: % Points Required

A 94 - 100

A-	90 - 93
B+	87 - 89
B	84 - 86
B-	80 - 83
C+	77 - 79
C	74 - 76
C-	70 - 73
D+	67 - 69
D	64 - 66
D-	60 - 63
F	< 60

General App Requirements:

All app assignments have the following standard instructions (that will be clarified in the first few modules of class), and will remain as common requirements throughout the entire semester:

1. Please submit your app **APK and AIA** files using Canvas, as well as any comments or questions you may have about the assignment
2. Be sure that the APK and AIA files both include your NAME (or at least your initials) and that these filenames_do_not_include_spaces or the dash (-) character. For example, I would turn in apps with the following name format: "**APP_NAME_RICH_I**", but NOT "APP-NAME RICH I".
3. Please set the **Screen1.About** property in your apps to include your name (so I can see who made it as I use it), as well as any testing instructions or community information that is appropriate.
4. Please be certain to set the **Screen1.Theme** property to be "Device Default".
5. Please ensure that all your apps have a small, distinctive **icon** so I can easily find them on my test devices after they have been installed.

Response Policy:

I commit to responding to student communication within 3 days. This is the outer limit of the response time that you should expect from me, and generally I will reply on the first day. This has to do with the way I grade your assignments, which will also be graded within 3 days after their due date.

Netequette:

Netiquette is a set of rules for behaving properly online. Something about cyberspace makes it easy for people to forget that they are interacting with other real people. The following bullet points cover some basics to communicating online:

- Be sensitive to the fact that there will be cultural and linguistic backgrounds, as well as different political and religious beliefs, plus just differences in general.
- Use good taste when composing your responses in Discussion Forums. Swearing and profanity is also part of being sensitive to your classmates and should be avoided. Also consider that slang can be misunderstood or misinterpreted.
- Be respectful of others' views and opinions. Avoid "flaming" (publicly attacking or insulting) them as this can cause hurt feelings and decrease the chances of getting all different types of points of view.
- Be careful when using acronyms. If you use an acronym it is best to spell out its meaning first, then put the acronym in parentheses afterward, for example: Frequently Asked Questions (FAQs). After that you can use the acronym freely throughout your message.
- Use good grammar and spelling, and avoid using text messaging shortcuts.

Late Assignments:

Late work is NOT accepted. The assignments lock after the due date. If you know in advance that you will not be able to turn in an assignment on a given day, DO IT EARLY. We cover a lot of material in this class, so once an assignment is due it is time to move on.

Original Work:

All apps that are turned into this class must be the original work of each student. There are (diff) tools that identify an app's originality and it is easy to demonstrate when an app is a copy of another one that has already been turned in. Changing a few properties in one app does NOT constitute creating another original app.

You may, and are encouraged to, collaborate and discuss the apps you create. However, the apps you turn in for credit must be your own original work. Apps that are determined to be copies of other apps will not count for credit and will be reviewed for compliance with the University of Utah Student Code (<https://regulations.utah.edu/academics/6-400.php> [_ \(https://regulations.utah.edu/academics/6-400.php\)](https://regulations.utah.edu/academics/6-400.php)).

Course Outline:

1. Introduction
2. Setting up AppInventor

3. Chapters 1 and 14
4. Chapters 2 and 15
5. Chapters 3 and 16
6. Chapters 4 and 17
7. Chapters 5 and 18
8. Chapters 6 and 19
9. Chapters 7 and 20
10. [Graduate Student Mobile App Justification Paper]
11. Chapters 8 and 21
12. Chapters 9 and 22
13. Chapters 10 and 23
14. Chapter 11
15. Chapter 13 and 24
16. [Graduate Student Mobile App Project]

ADA Statement:

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (VITDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

Faculty and Student Responsibility:













All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. More information may be found in the Student Code, available at: <http://www.admin.utah.edu/ppmanual/8/8-10.html#SECTION%20V> (<http://www.google.com/url?q=http%3A%2F%2Fwww.admin.utah.edu%2Fppmanual%2F8%2F8-10.html%23SECTION%2520V&sa=D&sntz=1&usg=AFrqEzc6fYb0V4SOnonJPicV5mXxD2kNyw>)

















Wellness Statement:
















Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness; www.wellness.utah.edu; 801-581-7776.




Note: The syllabus is not a binding legal contract. It may be modified by the instructor when the student is given reasonable notice of the modification.

Course Summary:

Date	Details	
Mon May 11, 2020	 <u>A SUPER EASY ASSIGNMENT TO GET US STARTED</u> (https://utah.instructure.com/courses/625121/assignments/7457061)	due by 11:59pm
	 <u>Class Introductions</u> (https://utah.instructure.com/courses/625121/assignments/7457060)	due by 11:59pm
Wed May 13, 2020	 <u>Chapter 1 App Assignment (HP)</u> (https://utah.instructure.com/courses/625121/assignments/7457068)	due by 11:59pm
	 <u>Modiy 1</u> (https://utah.instructure.com/courses/625121/assignments/7457057)	due by 11:59pm
Fri May 15, 2020	 <u>Chapter 1 Modification Assignment (WCT)</u> (https://utah.instructure.com/courses/625121/assignments/7457069)	due by 11:59pm
	 <u>Conceptualize 1</u> (https://utah.instructure.com/courses/625121/assignments/7457058)	due by 11:59pm
Mon May 18, 2020	 <u>In Your Own Words</u> (https://utah.instructure.com/courses/625121/assignments/7457090)	due by 11:59pm
	 <u>What communities could you make apps for?</u> (https://utah.instructure.com/courses/625121/assignments/7457059)	due by 11:59pm
Wed May 20, 2020	 <u>Find Two Example Apps...</u> (https://utah.instructure.com/courses/625121/assignments/7457086)	due by 11:59pm
	 <u>I HAVE WHAT I NEED TO BE SUCCESSFUL</u> (https://utah.instructure.com/courses/625121/assignments/7457089)	due by 11:59pm
Fri May 22, 2020	 <u>Chapter 2 App Assignment (PP)</u> (https://utah.instructure.com/courses/625121/assignments/7457070)	due by 11:59pm
	 <u>Modify 2</u> (https://utah.instructure.com/courses/625121/assignments/7457055)	due by 11:59pm
Tue May 26, 2020	 <u>Chapter 2 Modification Assignment (PM)</u> (https://utah.instructure.com/courses/625121/assignments/7457071)	due by 11:59pm
	 <u>Conceptualize 2</u> (https://utah.instructure.com/courses/625121/assignments/7457056)	due by 11:59pm

Date	Details	
Thu May 28, 2020	 Chapter 3 App Assignment (MM) https://utah.instructure.com/courses/625121/assignments/7457072	due by 11:59pm
	 Modify 3 https://utah.instructure.com/courses/625121/assignments/7457053	due by 11:59pm
Mon Jun 1, 2020	 Chapter 3 Modification Assignment (F) https://utah.instructure.com/courses/625121/assignments/7457073	due by 11:59pm
	 Conceptualize 3 https://utah.instructure.com/courses/625121/assignments/7457054	due by 11:59pm
Wed Jun 3, 2020	 Chapter 4 App Assignment (NTWD) https://utah.instructure.com/courses/625121/assignments/7457074	due by 11:59pm
	 Modify 4 https://utah.instructure.com/courses/625121/assignments/7457052	due by 11:59pm
Fri Jun 5, 2020	 Chapter 4 Modification Assignment https://utah.instructure.com/courses/625121/assignments/7457075	due by 11:59pm
	 Conceptualize 4 https://utah.instructure.com/courses/625121/assignments/7457043	due by 11:59pm
Tue Jun 9, 2020	 Chapter 5 App Assignment (LBC) https://utah.instructure.com/courses/625121/assignments/7457076	due by 11:59pm
	 Modify 5 https://utah.instructure.com/courses/625121/assignments/7457051	due by 11:59pm
Thu Jun 11, 2020	 Chapter 5 Modification Assignment (HL) https://utah.instructure.com/courses/625121/assignments/7457077	due by 11:59pm
	 Conceptualize 5 https://utah.instructure.com/courses/625121/assignments/7457042	due by 11:59pm
Tue Jun 16, 2020	 Chapter 6 App Assignment (PMT) https://utah.instructure.com/courses/625121/assignments/7457078	due by 11:59pm
	 Modify 6 https://utah.instructure.com/courses/625121/assignments/7457050	due by 11:59pm
Thu Jun 18, 2020	 Chapter 6 Modification Assignment (MFH) https://utah.instructure.com/courses/625121/assignments/7457079	due by 11:59pm
	 Conceptualize 6 https://utah.instructure.com/courses/625121/assignments/7457041	due by 11:59pm

Date	Details	
Fri Jun 19, 2020	 [Graduate Students ONLY] Custom Mobile App Justification Paper (https://utah.instructure.com/courses/625121/assignments/7457088)	due by 11:59pm
Tue Jun 23, 2020	 Chapter 7 App Assignment (AWMC) (https://utah.instructure.com/courses/625121/assignments/7457080)	due by 11:59pm
	 Modify 7 (https://utah.instructure.com/courses/625121/assignments/7457049)	due by 11:59pm
Thu Jun 25, 2020	 Chapter 7 Modification Assignment (https://utah.instructure.com/courses/625121/assignments/7457081)	due by 11:59pm
	 Conceptualize 7 (https://utah.instructure.com/courses/625121/assignments/7457040)	due by 11:59pm
Tue Jun 30, 2020	 Chapter 8 App Assignment (PQ) (https://utah.instructure.com/courses/625121/assignments/7457082)	due by 11:59pm
	 Modify 8 (https://utah.instructure.com/courses/625121/assignments/7457048)	due by 11:59pm
Thu Jul 2, 2020	 Chapter 8 Modification Assignment (HQ) (https://utah.instructure.com/courses/625121/assignments/7457083)	due by 11:59pm
	 Conceptualize 8 (https://utah.instructure.com/courses/625121/assignments/7457039)	due by 11:59pm
Tue Jul 7, 2020	 Chapter 9 App Assignment (X) (https://utah.instructure.com/courses/625121/assignments/7457084)	due by 11:59pm
	 Modify 9 (https://utah.instructure.com/courses/625121/assignments/7457047)	due by 11:59pm
Thu Jul 9, 2020	 Chapter 9 Modification Assignment (https://utah.instructure.com/courses/625121/assignments/7457085)	due by 11:59pm
	 Conceptualize 9 (https://utah.instructure.com/courses/625121/assignments/7457038)	due by 11:59pm
Mon Jul 13, 2020	 Chapter 10 App Assignment (MQTQ) (https://utah.instructure.com/courses/625121/assignments/7457062)	due by 11:59pm
	 Modify 10 (https://utah.instructure.com/courses/625121/assignments/7457046)	due by 11:59pm

Date	Details	
Wed Jul 15, 2020	 Chapter 10 Modification Assignment (T) https://utah.instructure.com/courses/625121/assignments/7457063	due by 11:59pm
	 Conceptualize 10 https://utah.instructure.com/courses/625121/assignments/7457037	due by 11:59pm
Fri Jul 17, 2020	 Chapter 11 App Assignment (PIC or BH) https://utah.instructure.com/courses/625121/assignments/7457064	due by 11:59pm
	 Modify 11 https://utah.instructure.com/courses/625121/assignments/7457045	due by 11:59pm
Tue Jul 21, 2020	 Chapter 11 Modification Assignment (BHP) https://utah.instructure.com/courses/625121/assignments/7457065	due by 11:59pm
	 Conceptualize 11 https://utah.instructure.com/courses/625121/assignments/7457036	due by 11:59pm
Thu Jul 23, 2020	 Chapter 13 App Assignment (GLC) https://utah.instructure.com/courses/625121/assignments/7457066	due by 11:59pm
	 Modify 13 https://utah.instructure.com/courses/625121/assignments/7457044	due by 11:59pm
Mon Jul 27, 2020	 [Graduate Students] Custom Mobile App https://utah.instructure.com/courses/625121/assignments/7457087	due by 11:59pm
Tue Jul 28, 2020	 Chapter 13 Modification Assignment (CFR) https://utah.instructure.com/courses/625121/assignments/7457067	due by 11:59pm
	 Conceptualize 13 https://utah.instructure.com/courses/625121/assignments/7457035	due by 11:59pm