J390 Mobile App Design and Dev

Professor: Steven King, Assistant Professor of Interactive Media

UNC School of Media and Journalism

Tuesday and Thursdays 9:05 - 10:45 Carroll Hall Rm 59

Office Hours: Wednesdays from 10am-Noon and when sign says open!

Office: Room 77 In VisCom Suite near class room.

Couse Website: https://github.com/steven-king/j491-appdesigndev

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COURSE DESCRIPTION

J390 MOBILE APP DESIGN AND DEV

This class will teach you how to think about mobile media products. You will learn to solve problems, design mobile user experiences, write the code to make it work and then deploy test and make it better!

The class will be a mix of design and product development theories (Human Centered Design, Mobile First, etc.), UX (User Experience) thinking, information architecture, and code development using web technologies (HTML, CSS and JavaScript) and PhoneGap. You will design, develop and deploy both Android and iOS applications. The class time will be about 50% discussion and lecture and 50% application (doing). Some days that will be lecture then code. Some days will be in-the-field learning from users and other days there will be a lot of technical lecture.

Expect a heavy amount of out-of-class work on your mobile app.

The last couple of weeks of class will be spent developing your final project.
Producing effective mobile apps requires extensive and detailed skill sets that will be taught, include:

- Expertise in mobile layout using html, CSS, JavaScript, PhoneGap and Parse
- Effective use of media and interactivity
- solid, ethical journalistic and computer science professional decision-making
- Design thinking and visual problem solving

PREREQUISITES AND PRIOR KNOWLEDGE

There are no official prerequisites but previous experience of HTML, CSS and basic JavaScript are required. Having taken an intro level computer programing course is helpful but not required. For example, if you don't know how to count the number of times through a loop or how if statements work then this class will be very difficult and I might suggest supplementing that knowledge quickly or dropping the class.

ACCREDITATION

The School of Journalism and Mass Communication's accrediting body outlines a number of values you should be aware of and competencies you should be able to demonstrate by the time you graduate from our program. Learn more about them here:

http://www2.ku.edu/~acejmc/PROGRAM/PRINCIPLES.SHTML#vals&comps

No single course could possibly give you all of these values and competencies; but collectively, our classes are designed to build your abilities in each of these areas. In this class, we will address a number of the values and competencies, with special emphasis on "Professional values and competencies" listed below.

- Understand concepts and apply theories in the use and presentation of images and information;

- Demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness and diversity;

- Think critically, creatively and independently;

- Apply tools and technologies appropriate for the communications professions in which they work.

COURSE POLICIES

Attendance and Assignments

Attendance is required, participation is expected and deadlines are absolute.
To succeed in this class you must attend and participate in the discussion and hands-on, in-class assignments. Each in-class assignment is worth 20 points and can only be completed during class and will not be turned at a later date. You are allowed one un-excused absence. Any other missed class assignments with receive a 0 grade.

LATE ASSIGNMENTS WILL NOT BE ACCEPTED unless special arrangements are made prior to the due date. Major projects will be due at 11:59 p.m. Deadlines are vital to success in this industry and you are expected to make deadline.

Honor Code and Plagiarism

It is expected that each student in this course will conduct himself or herself within the guidelines of the UNC honor code. All academic work should be done with the high level of honesty and integrity this university demands. You are expected to produce your own work in this class. If you have any questions about your responsibility or your instructor's responsibility as a faculty member under the Honor Code, please talk with me or Senior Associate Dean Charlie Tuggle, or you may speak with a representative of the Student Attorney Office or the Office of the Dean of Students.

It is acceptable to use coding resources such as tutorials, libraries and **some** source code on sites like GitHub but the software license must allow for the usage and the **code should be credited**, linked and commented in your source code and credited visibly on the site either in the footer or a credits page.

Seeking Help

If you need individual assistance, it's your responsibility to contact me. If you are serious about wanting to improve your performance in the course, the time to seek help is as soon as you are aware of the problem – whether the problem is difficulty with course material, a disability, or an illness.

Diversity

The University's policy on Prohibiting Harassment and Discrimination is outlined in the 2011-2012 Undergraduate Bulletin http://www.unc.edu/ugradbulletin/. UNC is committed to providing an inclusive and welcoming environment for all members of our community and does not discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression.

Special Accommodations

If you require special accommodations to attend or participate in this course, please let the instructor know as soon as possible. If you need information about disabilities visit the Accessibility Services website at https://accessibility.unc.edu/

Grading Policy

There are basic expectations that any supervisor or project manager would have for a project undertaken by a multimedia design specialist. All of your assignments must meet the following minimum basic standards to be considered for a grade of "B" or better.
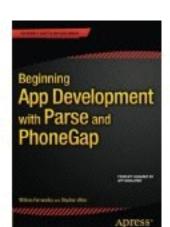
The project must be:

- completed according to the assignment specifications.

- completed on time.

- free of typographical, grammatical and mechanical errors.

- completed so as to evidence a clear grasp of interactive development standards and design concepts.

When appropriate your multimedia work also will be evaluated for:

- news value

- presentation editing decisions

- architecture of information presentation

- aesthetic design choices

- creativity and innovation
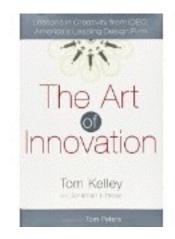
RESOURCES AND SOFTWARE

Text Book

Beginning App Development with Parse and PhoneGap

By: Wilkins Fernandez

1st Edition

~$35

bit.ly/jsandjQueryBook

Art of Innovation

By; Tom Kelley of IDEO

1st Edition

~$15

http://bit.ly/hcdBook

Software

We will use Komodo Edit but any IDE or HTML/CSS/JavaScript Code editor will be fine. Many students luse Sublime Text or Atom but NEVER USE Dreamweaver.

Developer Subscriptions

Apple Developer Account $99

Google Play (Android) Account $25

ASSIGNMENTS

This class follows a project-driven approach and is built on one major project that demonstrate the skills taught in the class.

In-class Assignments and Quizzes

In-class exercises will cover the reading assignments and issues pertaining to the particular week's lessons. You always will be able to use your notes and textbook to complete the exercises, so be sure to bring them to class everyday. Some of these assignments may count as a quiz grade.

You also will have unannounced more traditional quizzes on reading assignments throughout the semester. If you keep up with the reading assignments, the quizzes will be easy to complete.

Professional Test

There will be one exam during the second half of the semester,possibly on exam day. Date will be determined and you will be informed in plenty of time to study. This test will be similar to what you might see on a job interview. This exam helps you prepare for such a day and show you have the deeper knowledge of what you build.

App Project

You will be working on one App/project for the entire semester. Each week you will iterate and advance your app. Each week you will turn in a new version of the build that advanced past your previous week. By the end of the semester your final App with have at least 10 iterations if not more. Each week you will receive points based on the progress of your App. If you do not mage significant advancements each week you will not earn the points for that week. More information about these projects will be provided during class.

This project should demonstrate a comprehensive menu of mobile app design and development skills commensurate with what you learned during this course.

Assignments	Points Each	% of Grade
Exercises and Quizes	20	20%
App Iterations	100	30%
Final	400	40%
Professional Test	100	10%
Total		**100%**

Class	Date	Topic/Assignment
1	Tuesday, Aug. 18, 2015	Introductions, Policies
2	Thursday, Aug. 20, 2015	App Design and Command Line
3	Tuesday, Aug. 25, 2015	Intro to Git
4	Thursday, Aug. 27, 2015	Intro to Human Centered Design
5	Tuesday, Sept 1, 2015	UI Design Designs Assigned
6	Thursday, Sept. 3, 2015	App/ Hybrid Stack, Design Critique
7	Tuesday, Sept 8, 2015	MVP Development MVP UI Assigned
8	Thursday, Sept. 10, 2015	MVP UI Critique MVP v 0.1 assigned
9	Tuesday, Sept 15, 2015	MVP Development, Logic, Interaction
10	Thursday, Sept. 17, 2015	Open Lab Day. No Lecture
11	Tuesday, Sept 22, 2015	MVP v 0.1 Critique
12	**Thursday, Sept. 24, 2015**	**No Class. ONA Confrence**
13	Tuesday, Sept 29, 2015	Intro to Development Language Frameworks, App v1 Assigned
14	Thursday, Oct. 1, 2015	Development Language Frameworks
15	Tuesday, Oct 6, 2015	Lab Time on App v1.0
16	Thursday, Oct. 8, 2015	App v1.0 Critique
17	Tuesday, Oct 13, 2015	Data Sources, XML/JSON App v1.1 Assigned
BREAK	**Wednesday, Oct. 14-18, 2015**	**Fall Break**
18	Tuesday, Oct 20, 2015	Data Sources, Parse
19	Thursday, Oct. 22, 2015	Lab Day: Data
20	Tuesday, Oct 27, 2015	Economics of Apps, Lab time
21	Thursday, Oct. 29, 2015	App v1.2 Critique
22	Tuesday, Nov. 3, 2015	API Integration App v1.3 Assigned

Class	Date	Topic/Assignment
23	Thursday, Nov 5, 2015	Startup vs. Corporate Innovation App v1.3 Critique
24	Tuesday, Nov. 10, 2015	App v1.4 Assigned
25	Thursday, Nov 12, 2015	App v1.4 Critique
26	Tuesday, Nov. 17, 2015	Store Requirements and pitfalls. App v1.5 Assigned
27	Thursday, Nov 19, 2015	App v1.5 Critique
28	**Tuesday, Nov. 24, 2015**	Lab Day: v1.5 **APP STORE SUBMITTION DEADLINE 11:59pm**
BREAK	**Wednesday, Nov 25, 2015**	**Thanksgiving Break**
	Tuesday, Dec. 1, 2015	Professional Standards
EXAM	**Thursday, Dec 3, 2015**	**Professional Test**

*Schedule is a guid and a goal for the class but is subject to change based on how quickly the class understands the material, weather and other factors.