Design & Technology for Mobile Experiences

Fall 2016 syllabus
Instructor: Margaret Moser
Meetings: Tuesdays 10am-12:50pm, SCA 356

Course Description

This course offers a hands-on introduction to the process of designing and developing mobile applications, including games, apps, and more exotic applications. We will explore the history of mobile technologies, examine and discuss their ever-growing role in our culture, and imagine their future.

In order to understand the concepts, design principles, and impact of mobile experiences, we must look at many different ways to make and use them. Focusing too deeply on a single platform, such as iOS, puts us in danger of concluding that iOS is the only way mobile can be done. Therefore, we will focus on design methodology and on tools that allow prototyping and development on many different devices.

The set of tools we will use are:

- Axure RP, a visual prototyping tool with powerful features for mocking up interactions
- Xamarin, a C# framework with drag-and-drop tools for building interfaces

These specific tools are chosen for two reasons. First, they are in wide use in industry and encapsulate many of the key development and design processes used by professionals. Second, they illustrate that there are many kinds of mobile apps, and many ways to build them.

We will work with these tools on a collaborative project in the first part of the class; you will then use them to develop an individual concept for your final project.

By the end of this course, you will understand the basic tools and practices of mobile development, and you will build the skills to create digital prototypes of your own ideas.

Course Pre-requisites

Basic coding experience is recommended, i.e. that you are reasonably comfortable using variables, functions, and parameters. In this class we will work with C#, but experience in any language is fine.

If you do not have coding experience, you will need to invest extra time to get up to speed, particularly in the first part of the semester. We will not start writing code until a couple of weeks into the semester. If you have questions about this, feel free to email me.

Course Communications

We will primarily use a Slack channel for course communications, including assignments. We will go over how to set this up in the first class.

I prefer that most class communications occur within Slack, but you may contact me at **mmoser@cinema.usc.edu** if needed. You must use your @usc email address. Please allow at least 24 hours for a response.

Office Hours

Mondays 3:30-5:30pm, or by appointment. During these times I am available for drop-in support in the department offices in SCI 201, near the arcade machine on the second floor. You can also reserve a 15-minute slot within these hours, or request appointments at other times, by contacting me on Slack.

Materials

We do not have devices to lend out for student use, so it is very strongly recommended that you have a mobile device (such as your own phone) that you can use for testing. (Don't worry, nothing we do will change how your phone works.)

Evaluation of student performance

Homework	30%
Design research project	20%
Final project incl. documentation	30%
Participation	20%
Total:	100%

You are responsible for understanding assignments.

All homework and projects must be turned in by 11pm the night before class. You will receive half credit if you turn it in within 24 hours of the deadline, and no credit thereafter.

Some assignments will require you to make interactive projects using one of the tools covered in class. If your project does not run at all, there will be a 20% penalty to the grade. If it runs but is incomplete or somewhat broken, there is no automatic penalty.

Participation consists of participating in class discussions and exercises and coming to office hours, in whatever combination you like.

Course Outline

A more detailed outline will be provided separately. Generally, each class will feature a short lecture, discussion based on readings and lectures, and demonstrations of/tutorials on one of our tools.

Week 1 – Week 4: Introduction and Collaborative Design

We will choose a simple app concept to work on as a class and take it all the way through the design process, from user research to wireframes.

Week 5 – Week 8: Collaborative Implementation

We will work together on coding a basic implementation of our class app. During this time you will also begin researching your individual project.

Week 9 – Week 10: Design Research Project

We will have a check-in and then presentations of your design research projects.

Week 11 – Week 14: Other Topics; Work on Final Project

We will discuss assigned readings, videos, etc. for about half the class, and spend the remaining time on final projects.

Week 15: Present Final Project

You will show your final project with a slide presentation and live demo of basic functionality.

Key dates are:

October 25: presentation of design research project

November 29: presentation of final project

Final Exam

There is no final exam.

Absence Policy

Students are expected to attend every class and be on time. We are only meeting fifteen times, so each one will have quite a bit of material. An unexcused absence or repeated tardiness will significantly affect your participation grade. A second unexcused absence will lower your course grade by a full point, e.g. from B to C.

The only excused absences are for illness, family emergencies, and (with advance notice) commitments related to a scholarship you are receiving, e.g. for a varsity sport. You must

contact me as soon as possible regarding your absence. Generally I will expect to hear from you before class; in exigent circumstances I would expect to hear from you within 24 hours. If I do not hear from you in a timely fashion you may forfeit your option to make up what you have missed.

All that said:

1. **If you are sick, stay home.** You need to be healthy to learn, and so do your classmates (and instructors).
2. I do not distinguish between mental health and physical health. If you cannot complete an assignment on time or come to class because of mental health issues, you must contact me promptly, just as with physical health problems.

Incompletes

The only acceptable reasons for taking an incomplete in the course are personal illness or a family emergency. Students who wish to take incompletes must present documentation of the problem to the instructor before final grades are due. Incompletes are not available before the Week 12 withdrawal deadline.

Conduct

In this class, we make a commitment to foster a welcoming and supportive environment where students of all identities and backgrounds can flourish. This means that we will issue content warnings as appropriate, use preferred pronouns, and respect self-identifications. While debate and discussion are welcome, please remain aware of the implications of your words and the images that you include in your work. If the instructor or another student points out that something you have said or shared with the group might be offensive, avoid being defensive; this is a valuable opportunity for us to grow and learn together.

If you have a concern about any aspect of the class, you are encouraged to speak with the instructor. If you feel uncomfortable speaking with the instructor, you are also welcome to speak with either the undergraduate or graduate advisor for the division, who can discuss the issue with you directly or point you toward other on- and off-campus resources for addressing your concern.

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office of Student Judicial Affairs for disciplinary action.

Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation

that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. SCampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://www.usc.edu/dept/publications/SCAMPUS/gov/. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at http://www.usc.edu/student-affairs/SJACS/.

For this class, you are encouraged to copy and modify code from online sources and from class demonstration projects. You are also welcome to work together to solve code problems. If you use more than 3 lines of code from an external source without modifying it, you must provide a link to the source as a comment next to the copied code. You may use any code presented in class without attribution.

If you use any assets (images, textures, sounds, etc.) that are not your own work, you must name and link to the source, either on a credits screen in your app/game or in a separate credits text file delivered with the build.

For written assignments and for research documentation, you must clearly state the author and title of all sources you use. Collaborating on projects must be cleared with the instructor.

Emergencies

If an officially declared emergency makes travel to campus infeasible, USC Emergency Information (emergency.usc.edu) will provide updates on safety and other issues, including ways in which instruction will be continued.

Syllabus Updates

This syllabus is liable to change up to the beginning of class and possibly over the semester. Please check the posted syllabus regularly, and note all changes that are shared by the instructor in class. You are responsible for keeping up with changes, even if you are absent from a class.

Academic Accommodations

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. You can contact DSP by email at ability@usc.edu, by phone at 213-740-0776, or by video phone at 213-814-4618.

Instructor Bio

Margaret Moser is an Assistant Professor of Practice at the USC School of Cinematic Arts, where she teaches courses on game design, digital prototyping, mobile experiences, and experimental interfaces. She holds an MFA in Design and Technology from Parsons.

Margaret's work has been shown at Come Out & Play, Games4Change, and the Babycastles guerrilla game gallery in Brooklyn. She built web-based games at MTV Networks and has served as lead producer of two commercial iOS applications. She curates the Digital Selects for IndieCade, and has spoken at IndieCade East, AlterConf, and GDC.