Design & Technology for Mobile Experiences

Fall 2015 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, this course will focus on tools that allow prototyping and development on many different devices, rather than so-called native apps.

The set of tools we will use are:

- Axure RP, a visual prototyping tool with powerful features for mocking up interactions
- Intel XDK + the phaserjs game engine
- 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 each of these tools in class and build small sample projects, which may then become the basis for homework assignments. For the longer-term final project you may choose the one you are most comfortable with.

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 JavaScript and C#, but experience in any language is fine.

If you do not have coding experience, I can provide some excellent resources for self-teaching JavaScript; you will need to invest significant time to work through them, particularly in the first part of the semester. If you have questions about this, feel free to ask or 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.

When needed, all email communications for this course will occur through your @usc.edu email. This includes emails you send; emails from other domains will be ignored. This is because it is good professional practice to separate your personal and professional communications.

You may contact me at **mmoser@cinema.usc.edu** for administrative issues, such as "I'm sick and will miss class" or "I don't understand my grade". Please allow at least 24 hours for a response.

Office Hours

Mondays 2-4pm, Thursdays 11am-noon, 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 emailing me.

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	40%
Design research project	20%
Final project incl. documentation	30%
Participation	10%
Total:	100%

You are responsible for understanding assignments.

All homework and projects must be turned in before the beginning of class. I generally do not accept late work without a documented justification.

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. If you do not raise your hand all semester and never come to office hours, you will lose points here. Participation is also affected by attendance (see below for attendance policy).

Course Outline

A 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.

Key dates are:

November 3: presentation of design research project

December 1: presentation of final project

December 10: documentation and research for final project due

Final Exam

There is no final exam. Students will turn in documentation of their final project and the research behind it by December 10.

Absence Policy

Students are expected to attend every class. We are only meeting fifteen times, so each one will have quite a bit of material. Unexcused absences will affect your participation grade.

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.

Behavior in Class

Part of the purpose of this class is to understand and practice professional behavior. This includes many areas, from email communications to working in pairs, and it would be impossible to list them all. However, these are the general expectations:

1. Behave respectfully towards everyone.
2. Put forth your best effort.
3. Follow through on commitments, including communicating when you can't meet them.

Content Warnings

This course is intended to support your creative explorations in mobile technology. You are encouraged to research and work on subjects that interest you. However, if you include content in your work which may cause distress to your fellow students, please make a verbal 'content warning' immediately before you present the work in class, and include a written content warning in the readme file of a project, when you submit the work for grading.

Content which requires a content warning includes graphic depictions or descriptions of violence, sexual acts, sexual abuse, torture, self-harming behavior such as suicide, self-inflicted injuries or disordered eating, body shaming, and depictions of the mental state of someone suffering abuse or engaging in self-harming behavior.

Students who ever feel the need to step outside class during the presentation or discussion of work that warrants a content warning may always do so without academic penalty. (You will, however, be responsible for any material you miss.)

If you have any questions about what warrants a content warning, or if you ever wish to discuss your personal reactions to material presented in class, I welcome such discussion as an appropriate part of our coursework.

Note for Students with Disabilities

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 (or to an SA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

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. Collaboration must be cleared with the instructor.

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 has spoken at AlterConf and IndieCade East, and is currently curating the Digital Selects exhibit at IndieCade 2015.