

CSCI 526 Mobile Games Development (4 units)

Summer 2019

Course Information

Course: Mobile Game Development, CSCI 526, 4 units

Place and Time: EGG 108, Tuesday 6:00 p.m. – 9:00 p.m.
Thursday 6:00 p.m. – 9:00 p.m.

First Day of Class: Thursday, May 16th, 2019

Last Day of Class: Tuesday, July 9th, 2019

Class web page: <http://gamepipe.usc.edu/mobilegames/>

Instructor: Scott Easley

Office location: Office 207 EGG Building
<http://tinyurl.com/q8n4emg>

Email: seasley@usc.edu

Office hours: Tuesday 2:00 p.m. – 5:00 p.m.
Thursday 2:00 p.m. – 5:00 p.m.

Course TA: TBD

Email:

Course Objective

The objective of this course is to develop games on mobile devices like Apple iPhone, using various technologies like Unity3D, Cocos2D, etc. Emphasis is placed on building entertainment and serious games as well as novel applications of mobile embedded technology.

After successfully completing this course, students should be able to:

- Know the features of mobile games, the workflow of mobile game development and how mobile gaming technologies work;
- Create mobile game apps on mobile devices such as Apple iPhone, using proper technologies;
- Communicate and work effectively with teammates including artists, designers, and programmers.

Course Description

Students in this course will work in small teams to build games on mobile devices. The initial half of the course will focus on learning mobile game development tools and how those can be utilized with game development. During the course, students will collaborate with each other through the use of programming, art, design, and production skills.

Recommended Preparation: Basic mobile game apps development technologies (Unity3D, Cocos2D), teamwork tools (Google shared docs, Skype, SVN), languages (C#, Objective C, Boo, Javascript)

Textbook: Course Notes and technical documentation.

Evaluation of student performance

Weekly	Deliverables	50
Mid-term	Deliverables	15
Final	Deliverables	25
Final	Presentation	10
	Total:	100

Mid-term and Final Project/Presentation evaluation will be based on how a project will realize the goals the team has set out for itself and the project. Ultimately, this course exists to empower students to bring their vision onto the screen. The more you put into the project, the closer it will be to what was envisioned. For the Weekly Deliverables, the results of the online color-coded schedule sheet will be a key input. The professors will evaluate both the amount of tasks fully completed on time and also the complexity of the tasks.

More specifically:

a) Weekly deliverables will be graded based on online color-coded schedule sheet: green=1 (fully completed task), yellow = 0.5 (partial completed task), red = 0 (not completed task).

b) Midterm/Final Deliverables will be graded based on how well midterm/final milestone specifications are achieved. And it could be affected by following factors.

-- Green-colored task difficulty and completion quality

-- Code quality

-- Perceived effort

c) Overall, your final letter grade will be determined by total points for all your deliverables and final presentation. Strictly: 90%+ = A, 80%+=B, 70%+=C, 60%+=D, and lesser numbers are an F.

Course Outline

Week 1 (May 16th)

- Lecture 'CS 526 Mobile Games Class Overview'
- Introduction and Course Basics
- Mobile game development primer
- Teams self-selected based on project interest

Week 2 Session 1 (May 21st)

- Lecture 'CS 526 Game Design Basics - Class 2'
- Design Document Overview (Premise, Pitch, Story, Gameplay Breakdown, Critical Functions of play, Level walkthrough,
- Team captains assigned, review each team project

Week 2 Session 2 (May 23rd)

- Lecture 'CS 526 Flowcharting with Machinations – Class 3'
- Project planning/Design finalization
- Source Control
- Genre review, assign online research

Week 3 Session 1 (May 28th)

- Lecture 'CS 526 Prototyping Basics - Class 4'
- Getting started with machinations flowchart
- Quick walk through Unity3D, Cocos, Swift, Unreal as engine choices

Week 3 Session 2 (May 30th)

- Lecture 'CS 526 Faking Physics in Unity - Class 5'
- Optimizing games
- Prototyping review
- Core Loop outline

Week 4 Session 1 (Jun 4th)

- Lecture 'CS 526 Review Prototype - Class 6'
- Prototype review II
- Studio Sessions (In studio sessions, student game development teams will develop and implement their game designs.)

Week 4 Session 2 (Jun 6th)

- Lecture 'CS 526 Game Loop vs. Core Game Loop - Class 7'
- Teacher review of Game prototypes for midterms
- Studio Sessions (In studio sessions, student game development teams will develop and implement their game designs.)

Week 5 (Jun 11nd, Jun 13rd)

- Lecture 'CS 526 Mobile Game Controls - Class 8'
- Game demos preparation for Mid-term presentation

Week 6 Session 1 (Jun 18th)

- Mid-term demo in front of class
- All students in all teams must be present for the in-class demonstration

Week 6 Session 2 (Jun 20th)

- Lecture 'CS 526 Level Design and Exporting to XML - Class 11'
- Assess feedback from playtesting the games, project work for the latter half of the semester
- Triage of changes from list for finals

Week 7 (Jun 25th, Jun 27th)

- Lecture 'CS 526 Game UI and UX - Class 12'
- FTUE (First time User Experience) pass on game
- Make sure guiding the player is primary

Week 8 (Jul 2nd, Jul 4th)

- Review of class games, playtesting setup and feedback
- Reasonable amount of gameplay to be expected by final
- Fewer levels, better quality gameplay

Week 9 (Jul 9th)

- Final In-Class Game demo
- Video demo turned in for semester playlist
- Playtesting and review

Statement 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 TA) 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.

Statement on 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/..](http://www.usc.edu/student-affairs/SJACS/)