Objective

Upon completion of the class, the student will be able to analyze a multi-player game for the skills it demands of players and turn that analysis into challenging, balanced multi-player levels.

Concepts

Digging into game software development through level design with a focus on the iterative process and gathering feedback from players during playtest sessions.

Prerequisites

N/A

Instructor

Karen McMullan

Email: karenmcm@usc.edu

Office Hours

Listed on Blackboard under Contacts

Lab Assistants

Listed on Blackboard under Contacts

Lecture

Thursdays, 7:30-8:30

Lab

Tuesdays, 7:30-8:30

Required Textbooks

Instructor lectures and on-line resources listed on Blackboard.

Website

All course material will be on Blackboard (http://blackboard.usc.edu). Lectures are on Blackboard under Content, and assignments are on Blackboard under Assignments. http://blackboard.usc.edu.

Assignments are to be turned in online via Blackboard. Students are also required to stay apprised of video game industry news. Free daily industry newsletter (required reading): http://www.gamesindustry.biz

IT Help

Hours of Service: 8AM-9PM; Phone: 213-740-0517; Email: engrhelp@usc.edu
Grading
The following percentage breakdown will be used in determining the grade for the course.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly assignments (15 at 6% each)</td>
<td>90%</td>
</tr>
<tr>
<td>Participation</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Grading breakdown of weekly assignments:*

- On time, to spec: 30%
- Assignment quality: 70%

Grading Scale
The following shows the grading scale to be used to determine the letter grade.

- A: 100-93
- A-: 92-90
- B+: 89-87
- B: 86-83
- B-: 82-80
- C+: 79-77
- C: 76-73
- C-: 72-70
- D+: 69-67
- D: 66-65
- F: 64 or below

Policies
No make-up exams (playtests) will be offered. If a playtest is missed, students are required to conduct a playtest on their own before the next iteration is due, collecting and processing feedback, per playtest procedures.

**Assignments** - Assignments are posted weekly under Assignments on Blackboard. Exercises are to be submitted online via Blackboard only. Barring an extended campuswide Blackboard outage, no work submitted by email will be graded. Assignments are due on the dates listed in the syllabus (subject to change during the run of the course). It is the student’s responsibility to turn in assignments on or before deadlines as set by the instructor. If student misses class, the assignment is still due on the due date and can be turned in on Blackboard from anywhere in the world with Internet access. If absent due to illness, bring written note from medical facility to get exception. However, students missing a playtest, must make up the playtest on their own.

**Save your work** - You are required to save your projects, levels and builds using a USB flash drive or a website such as [http://www.dropbox.com](http://www.dropbox.com). Keep a copy of all your work. You will not be able to save your work on the ITP lab computers.
Extra Credit - During the second half of the semester, extra credit assignments are available. An extra credit assignment counts the same as a regular weekly assignment, and its grade goes into the assignments portion of the overall grade. A student may turn in up to three extra credit assignments, prior to the end of the last class (before Study Days).

Athletes - If you must miss class due to an athletic event, you must notify instructor in advance of the absence. You are still expected to turn in all work. All assignments are still due on the due date and can be turned in on Blackboard from anywhere in the world with Internet access.

Late Submissions – Exercises turn in late 30%. They may be submitted later for grading, but, due to the cumulative nature of assignments and the steps of the iterative process, earlier assignments will need to be completed before later assignments can be assessed and tested. It is very important to keep up with assignments as they are due. Extensions are granted based on written excuse and are granted on a case-by-case basis only; no guarantee that an extension will be granted.

Make-up policies - To make up for a missed assignment, student must turn in assignment on Blackboard (subject to lateness penalty per above). To make up for a missed playtest, the student must provide a satisfactory reason (as determined by the instructor) along with proper documentation. The student must then conduct a playtest outside of class. Make-up exams are only allowed under extraordinary circumstances.

Attendance - Students should notify instructor by email in advance if a class will be missed. Students are expected to come to class on time and attend each class. The course reader is online. Read it. Do the homework online.

Other policies as outlined by the instructor in class.

Changes to this syllabus will be uploaded at need. Students are responsible for being up to date with any and all changes to course policies, assignment due dates and course events coordinated in class, listed here and/or on Blackboard.

Incomplete and Missing Grades
Excerpts for this section have been taken from the University Grading Handbook, located at http://www.usc.edu/dept/ARR/grades/gradinghandbook/index.html. Please see the link for more details on this and any other grading concerns.

A grade of Missing Grade (MG) “should only be assigned in unique or unusual situations... for those cases in which a student does not complete work for the course before the semester ends. All missing grades must be resolved by the instructor through the Correction of Grade Process. One calendar year is allowed to resolve a MG. If an MG is not resolved [within] one year the grade is changed to [Unofficial Withdrawal] UW and will be calculated into the grade point average a zero grade points.

A grade of Incomplete (IN) “is assigned when work is no completed because of documented illness or other ‘emergency’ occurring after the twelfth week of the semester (or 12th week equivalency for any course scheduled for less than 15 weeks).”
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/.

If the instructor, a grader, or a lab assistant suspects you of academic dishonesty, it has to be reported to SJACS. Do not share your lab assignments with other students. Do not submit another student’s work as your own. Do not look at other students’ papers during exams. Do not leave the room during an exam. Do not cheat! As Trojans, we are faithful, scholarly, skillful, courageous, and ambitious.

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 your course instructor (or TA) as early in the semester as possible. If you need accommodations for an exam, the form needs to be given to the instructor at least two weeks before the exam.

DSP is located in STU 301 and is open from 8:30am to 5:00pm, Monday through Friday. Contact info: 213-740-0776 (Phone), 213-740-6948 (TDD only), 213-740-8216 (FAX), ability@usc.edu, http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html.

Emergency Preparedness/Course Continuity in a Crisis

In case of emergency, when travel to campus is difficult, if not impossible, USC executive leadership will announce a digital way for instructors to teach students in their residence halls or homes using a combination of the Blackboard LMS (Learning Management System), teleconferencing, and other technologies. Instructors should be prepared to assign students a “Plan B” assignment that can be completed ‘at a distance.’ For additional information about maintaining your classes in an emergency, please access: http://cst.usc.edu/services/emergencyprep.html
Level Design for Multi-player Games
ITP 499 (2 Units)

Course Outline
Schedule subject to revision during the course of the term.

WEEK 1 Tuesday, January 9th
Level Design & Level Designers

Due --
Class Level Design & Level Designers; the role of level designers on a team, how level design compares to game design
Class Class Survey / Questionnaire
Class People Intros
Assigned Assignment #1 – Level Analysis; play and analyze a level that you love or hate and document its particulars

WEEK 1 Thursday, January 11th
Tools

Due --
Class Engine Intro; history, choice
Class Engine Overview; paradigm, interface, best practices
Class Course logistics
Assigned Assignment #2 – Tutorial; find, complete, expand and review a tutorial on the game engine

WEEK 2 Tuesday, January 16th
Tools

Due Present Assignment #1
Class Discuss assignment #1
Class Lab
Assigned --

WEEK 2 Thursday, January 18th
Space

Due Present Assignment #2
Class Discuss Assignment #2
Class Engine Demo; project creation, builds, screenshots
Class Whiteboxing Demo; Space; volumes, gameplay elements
Assigned Assignment #3 – Movement benchmarks; create a small whitebox map that showcases types of movement
WEEK 3  Tuesday, January 23rd

**Space**

*Due*  Show progress  
*Class*  Lab  
*Assigned*  Assignment #4 – Space benchmarks; create a small whitebox map that showcases compression and release

---

WEEK 3  Thursday, January 25th

**Player Psychology**

*Due*  Present Assignment #3  
*Class*  Discuss Assignment #3  
*Class*  Why People Play; player motivations  
*Class*  Why Games are Compelling; content, progress, competition  
*Assigned*  --

---

WEEK 4  Tuesday, January 30th

**Player Psychology**

*Due*  Show progress  
*Class*  Lab  
*Assigned*  Assignment #5 – Gameplay benchmarks; create a small whitebox map that showcases distinct gameplay elements

---

WEEK 4  Thursday, February 1st

**Gameplay Elements**

*Due*  Present Assignment #4  
*Class*  Discuss Assignment #4  
*Class*  Interactivity; controls, feedback systems  
*Class*  Interactivity; scripting, triggers, physics  
*Assigned*  --

---

WEEK 5  Tuesday, February 6th

**Gameplay Elements**

*Due*  Show progress  
*Class*  Lab  
*Assigned*  Assignment #6 – Combination; create 1 whitebox map that features two elements (space + movement; movement + gameplay; etc.)

---

WEEK 5  Thursday, February 8th

**Game Types**

*Due*  Present Assignment #5  
*Class*  Discuss Assignment #5  
*Class*  Kinds of Multiplayer Games  
*Class*  Level Designer’s role revisited  
*Assigned*  --
WEEK 6  Tuesday, February 13th

**Game Types**

Due: Show progress
Class: Lab
Assigned: Assignment #7 – Combination; create 1 whitebox map that features two elements (space + movement; movement + gameplay; etc.)

WEEK 6  Thursday, February 15th

**Playtest**

Due: Present Assignment #6
Class: Discuss Assignment #6
Class: They’re Playing It Wrong; what to do with feedback, kevlar undies
Class: Playtest and YOU; role of playtest, running a playtest, making it useful

Assigned: --

WEEK 7  Tuesday, February 20th

**Playtest**

Due: Show progress
Class: Lab
Assigned: Assignment #8 – Combination; create 1 whitebox map that features two elements (space + movement; movement + gameplay; etc.)

WEEK 7  Thursday, February 22nd

**Environmental Design & Playtest**

Due: Present Assignment #7
Class: Discuss Assignment #7
Class: Unspoken Language; how levels communicate

Assigned: --

WEEK 8  Tuesday, February 27th

**Environmental Design & Playtest**

Due: Show progress
Class: Lab
Assigned: Assignment #9 – Map Pack; plan/design array of multi-player levels

WEEK 8  Thursday, March 1st

**Map Pack**

Due: Present Assignment #8
Class: Discuss Assignment #8
Class: Map Pack Design; skills and combinations
Assigned: --
### WEEK 9  Tuesday, March 6th

**Due**  Show progress  
**Class**  Lab  
**Assigned**  --

### WEEK 9  Thursday, March 8th

**Due**  Present Assignment #9  
**Class**  Discuss Assignment #9  
**Class**  Assign levels for Map Pack  
**Assigned**  Assignment #10 – Level Tearsheet; plan and design level

### WEEK 10  March 11th – March 18th

**SPRING RECESS**

### WEEK 11  Tuesday, March 20th

**Due**  Show progress  
**Class**  Lab  
**Assigned**  Assignment #11 – First Pass: Whitebox; focus on space

### WEEK 11  Thursday, March 22nd

**Due**  Present Assignment #10  
**Class**  Discuss Assignment #10  
**Class**  Set goals for next iteration and identify research items  
**Assigned**  --

### WEEK 12  Tuesday, March 27th

**Due**  Show progress  
**Class**  Lab  
**Assigned**  Assignment #12 – First Pass: Level gameplay; cornerstones of interactions, items, triggered events

### WEEK 12  Thursday, March 29th

**Due**  Present Assignment #11  
**Class**  Discuss Assignment #11  
**Class**  Set goals for next iteration and identify research items  
**Assigned**  --
WEEK 13  Tuesday, April 3rd  

Due  Show progress  
Class  Lab  
Assigned  Assignment #13 – First Pass: Playtest; run at least 5 rounds  

WEEK 13  Thursday, April 5th  

Due  Present Assignment #12  
Class  Discuss Assignment #12  
Class  Set goals for next iteration and identify research items  
Assigned  --  

WEEK 14  Tuesday, April 10th  

Due  Show progress  
Class  Lab  
Assigned  Assignment #14 – Second Pass: Refine space and gameplay; Playtest; run at least 5 rounds  

WEEK 14  Thursday, April 12th  

Due  Present Assignment #13  
Class  Discuss Assignment #13  
Class  Set goals for next iteration and identify research items  
Assigned  --  

WEEK 15  Tuesday, April 17th  

Due  Show progress  
Class  Lab  
Assigned  Assignment #15 – Final Pass: Last changes!  

WEEK 15  Thursday, April 19th  

Due  Present Assignment #14  
Class  Discuss Assignment #14  
Class  Set goals for next iteration and identify research items  
Assigned  --  

WEEK 16  Tuesday, April 24th  

Due  Final Levels Due!  
Class  Create & Test Map Pack  
Assigned  Fix any outstanding problems with Assignment #15 and Map Pack
## WEEK 16  Thursday, April 26th

<table>
<thead>
<tr>
<th></th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Due</strong></td>
<td>Final Build</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td>Test showcase build.</td>
</tr>
<tr>
<td><strong>Assigned</strong></td>
<td>--</td>
</tr>
</tbody>
</table>

## FINALS  TBD

<table>
<thead>
<tr>
<th></th>
<th>SHOWCASE!</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Due</strong></td>
<td>Present Assignment #15</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td>Showcase!</td>
</tr>
<tr>
<td><strong>Assigned</strong></td>
<td>--</td>
</tr>
</tbody>
</table>