Course Description
The video game production process incorporates various methodologies for programming, designing, and managing games. Students will be introduced to a variety of software tools that involve creating and designing 2D and/or 3D-Worlds, level design, character and background modeling, textures, and animation. Programming concepts in this course will address the role of AI, game logic, network and multiplayer concerns, graphic effects, sound effects, and scripting languages when creating video games. Students will learn the project lifecycle of video game development including concept development, project proposal, functional specs, gameplay design, prototyping, production and testing.

This is a project-based course. Students will be responsible for participating in class game jams and the final project will be a working game / prototype. The tools and concepts needed to complete the projects will be addressed during lectures and detailed during labs.
Learning Objectives
History of video games; overview of game genres; phases of video game development (concept, preproduction, production, post-production); roles of artists, programmers, designers, and producers. Learn a variety of software tools used in game development. The course final project will be a working game/prototype.

Prerequisite(s): none
Co-Requisite(s): none
Concurrent Enrollment: none
Recommended Preparation: familiarity with playing video games, and the use of email and web browsers. Familiarity with Microsoft Excel a plus.

Course Notes
Lecture 1-2 hours per week, student presentations every week after week 1, and guest speakers most weeks to augment lectures and provide a concrete video game industry reality-check. Lecture notes and some links to readings are on Blackboard; assignment instructions are on Blackboard, and assignments are turned in through Blackboard.

Technological Proficiency and Hardware/Software Required
Students should be familiar with the use of computers and video games. Classroom computers are provided, with all necessary software. Students may use their own laptops; Microsoft Office is required (and may be downloaded from http://software.usc.edu). Bugzilla is available through a Viterbi/ITP server and run through any web browser.

Required Readings and Supplementary Materials
Assigned readings may be accessed through Blackboard/ Web Links. Students are further advised to subscribe to GamesIndustry.biz and/or Gamasutra.com.

Description and Assessment of Assignments
You will create PowerPoint presentations, and a game using GameMaker. The lab assignments will be posted on Blackboard under the “Assignments” section. Each lab will include instructions, a due date, and a link for electronic submission.

Lab attendance is not mandatory, but there are some software packages that may not be available in non-ITP labs. If you have questions about any of the lab assignments, attend a lab session. Do not send any email to the instructor regarding lab instructions or help with IT issues. You are also invited and encouraged to attend the instructor’s office hours for lab-related questions.

You must keep a backup copy of all lab work, including assignments you submit on Blackboard. You are required to save your labs on your laptop, in an email to yourself, or on a website such as http://www.dropbox.com. You will not be able to save your work on
the lab computers, but you can save your work on the virtual desktop available from Viterbi at [https://mydesktop.vlab.usc.edu/](https://mydesktop.vlab.usc.edu/)

Lab Assignments: Lab assignments will be posted on Blackboard and will contain instructions on due dates, requirements, etc. Your scheduled lab time is when lab assignments should be worked on/completed. Students can also do their lab assignments from home or an alternative facility.

Midterm Examination: The midterm examination will be an in-class exam consisting of multiple choice, short answer, and essay questions. Students are only required to bring a pen or pencil to class.

In-Class Presentations: Students will be required to make a presentation one time, on a particular genre or title. Sign up at [https://docs.google.com/a/usc.edu/spreadsheets/d/16vtHzwHOPwN9_ZPkw_bf5pkbyvjMaMVS4KctWaAt_4Q/edit?usp=sharing](https://docs.google.com/a/usc.edu/spreadsheets/d/16vtHzwHOPwN9_ZPkw_bf5pkbyvjMaMVS4KctWaAt_4Q/edit?usp=sharing)

Final Project: At the end of the semester, there will be a final project. The final project will be a semester-long project including a written high-concept pitch, design documents, and a playable demo of a game. Students will be given direction throughout the semester preparing for the final project.

**Achievements**

Students earn "achievements" by various means: on-time participation 5 weeks in a row, excellent in-class discussion participation, assisting another student during lab, etc. Achievements are awarded in the form of specially marked playing cards or trading cards. Cards may be traded with other students. A student can combine cards to form special combinations; those card combinations can be turned in to the instructor in exchange for marks upgrades, lateness/absence reduction, etc. Details at [http://sloperama.com/achieve/](http://sloperama.com/achieve/) (content of achievements page are subject to change).
Grading Breakdown
Including the above detailed assignments, how will students be graded overall? Participation should be no more than 15%, unless justified for a higher amount. All must total 100%.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labs</td>
<td>300</td>
<td>30%</td>
</tr>
<tr>
<td>Lab1 Gamemaker</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Lab2 Game Treatment</td>
<td>100</td>
<td></td>
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<tr>
<td>Lab3 Game Enhancement</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Midterm</td>
<td>100</td>
<td>20%</td>
</tr>
<tr>
<td>In-class Presentation</td>
<td>100</td>
<td>15%</td>
</tr>
<tr>
<td>Final</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>Participation</td>
<td>28</td>
<td>10%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>928</strong></td>
<td><strong>100%</strong></td>
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Grading Scale
Course final grades will be determined using the following scale
A  95-100
A- 90-94
B+ 87-89
B  83-86
B- 80-82
C+ 77-79
C  73-76
C- 70-72
D+ 67-69
D  63-66
D- 60-62
F  59 and below

Assignment Submission Policy
Labs must be submitted on Blackboard. Do not email them to the instructor. It is your responsibility to submit your assignments on or before the due date (due date is normally "same day assigned" - normally Wednesdays). Assignments turned in one day late will have 20% of the total points deducted from the graded score. Assignments turned in two days late will have 50% of the total points deducted from the graded score. After two days, submissions will not be accepted and you will receive a 0.

Grading Timeline
Standard timeline is one week. Notify instructor if grades are not posted within 10 days of assignment due date.
Additional Policies
Attendance is recorded during each lecture and lab. If you are going to be absent from class, email valid excuse to instructor more than one hour prior to class to be counted as present. Athletes likewise must notify instructor in advance of the absence and are still expected to turn in all work. As noted above, assignment is still due on the day of lab, and can be turned in on Blackboard from anywhere in the world with internet access. Only proper businesslike emails accepted.

Labs must be submitted on Blackboard. Do not email them to the instructor. It is your responsibility to submit your assignments on or before the due date. Assignments turned in one day late will have 20% of the total points deducted from the graded score. Assignments turned in two days late will have 50% of the total points deducted from the graded score. After two days, submissions will receive a 0.

Laptops are permitted in lecture for note taking purposes. Using your laptop to play games, Facebook, etc. is not allowed.

No make-up exams (except for documented medical or family emergencies) will be offered nor will there be any changes made to the Final Exam schedule.

Course Schedule: A Weekly Breakdown
Precise schedule of class lectures and assignments may vary due to holidays, guest speaker availability, or other unforeseen circumstances.

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Topics/Daily Activities</th>
<th>Readings and Homework</th>
<th>Deliverable/ Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Introduction. Presentations signup.</td>
<td>Week 1 reading on Blackboard. No lab this week</td>
<td>No lab this week.</td>
</tr>
<tr>
<td>Week 2</td>
<td>History of video games. Development teams, including emerging positions.</td>
<td>Reading on Blackboard: Chapter 10 Specific Genres 175-194, Historical Elements 4-35.</td>
<td>GameMaker (recreating the classics), due Sunday night end of week 5 (multi-week assignment)</td>
</tr>
<tr>
<td>Week 3</td>
<td>Game industry company types.</td>
<td>Reading on Blackboard: Chapter 5 What is A Game Made Of 39-63, Production &amp; Management 352-369</td>
<td>GameMaker (recreating the classics), due Sunday night end of week 5</td>
</tr>
<tr>
<td>Week 4</td>
<td>Retail and digital download business models.</td>
<td>Reading on Blackboard: Chapter 1 The Crisis Facing Game Development 3-32; Part II Scrum and Agile Planning 35-40; Understanding the Product Owner 1-15</td>
<td>GameMaker (recreating the classics), due Sunday night end of week 5 (multi-week assignment)</td>
</tr>
<tr>
<td>Week 5</td>
<td>Concept phase of game development</td>
<td>Course Reader Chapter One In the Beginning, There is the Designer 1 – 7; Chapter 4 The Game Consists of Elements 39 – 46; Chapter 7</td>
<td>GameMaker (recreating the classics), due Sunday night by 11:59 PM</td>
</tr>
<tr>
<td>Week</td>
<td>Activity</td>
<td>Reading Material</td>
<td>Lab/Assignment Due</td>
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<tr>
<td>6</td>
<td>Pre-production phase of game development</td>
<td>Course Reader Chapter 14 The Design Document 394-412; Chapter 1 A Revolutionary Game Platform 1 – 19 (toward back of Course Reader)</td>
<td>Lab2: Game Treatment. Template on Blackboard. Due Sunday end of week 11</td>
</tr>
<tr>
<td>7</td>
<td>Game design overview. Class exercise: game design, Sissy Fight</td>
<td>Course Reader Chapter 3 The Look and Feel of Your Interface 27-41; Chapter 14 Designing the HUD 145-154; Chapter 9 Polishing 159-161 (instructor to hand out additional content)</td>
<td>Lab2: Game Treatment. Template on Blackboard. Due Sunday by 11:59 PM</td>
</tr>
<tr>
<td>8</td>
<td>Production phase of game development. Class exercise: SCRUM. Midterm prep.</td>
<td>Course Reader Mobile Gaming 2012 Casual Games Sector Report; Freemium Gaming Metrics 2012; Chapter 5. A Primer on Intellectual Property 1-51</td>
<td>Lab3: GamePlay enhancement, due Sunday end of week 11</td>
</tr>
<tr>
<td>9</td>
<td>Midterm</td>
<td>No reading</td>
<td>Lab3: GamePlay enhancement, due Sunday end of week 11</td>
</tr>
<tr>
<td></td>
<td>SPRING BREAK</td>
<td></td>
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<tr>
<td>10</td>
<td>Post-production phase of game development. Marketing</td>
<td>Course Reader Week 10</td>
<td>Lab3: GamePlay enhancement, due Sunday end of week 11</td>
</tr>
<tr>
<td>11</td>
<td>Giving effective pitch presentations</td>
<td>Course Reader Week 11</td>
<td>Lab3: GamePlay enhancement, due Sunday by 11:59 PM</td>
</tr>
<tr>
<td>12</td>
<td>Publisher-developer relationship in game development</td>
<td>Course Reader Week 12</td>
<td>Work on final project</td>
</tr>
<tr>
<td>13</td>
<td>Starting a game company of your own</td>
<td>Course Reader Week 13</td>
<td>Work on final project</td>
</tr>
<tr>
<td>14</td>
<td>Aftermarket phase in game development. Community management.</td>
<td>Course Reader Week 14</td>
<td>Work on final project</td>
</tr>
<tr>
<td>15</td>
<td>Wrapping up. Prep for finals</td>
<td>No reading</td>
<td>Work on final project. Some students may need to present this week (see note below).</td>
</tr>
<tr>
<td>FINAL</td>
<td>Held in usual classroom. Format: multiple choice, T/F, fill-the-blank, short essay. Presentations.</td>
<td></td>
<td>Date: For the date and time of the final for this class, see <a href="https://classes.usc.edu/term-20191/finals/">https://classes.usc.edu/term-20191/finals/</a></td>
</tr>
</tbody>
</table>

Each student is allotted 10 minutes to demo final project. Depending on number of students, some may present in class during week 15.
Statement on Academic Conduct and Support Systems

**Academic Conduct:**
Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” [https://policy.usc.edu/scampus-part-b/](https://policy.usc.edu/scampus-part-b/). Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, [http://policy.usc.edu/scientific-misconduct](http://policy.usc.edu/scientific-misconduct).

**Support Systems:**
- **Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call**
  Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. [https://engemannshc.usc.edu/counseling/](https://engemannshc.usc.edu/counseling/)

- **National Suicide Prevention Lifeline - 1-800-273-8255**
  Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. [http://www.suicidepreventionlifeline.org](http://www.suicidepreventionlifeline.org)

- **Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call**
  Free and confidential therapy services, workshops, and training for situations related to gender-based harm. [https://engemannshc.usc.edu/rsvp/](https://engemannshc.usc.edu/rsvp/)

- **Sexual Assault Resource Center**
  For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: [http://sarc.usc.edu](http://sarc.usc.edu)

- **Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086**
  Works with faculty, staff, visitors, applicants, and students around issues of protected class. [https://equity.usc.edu](https://equity.usc.edu)

- **Bias Assessment Response and Support**
  Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. [https://studentaffairs.usc.edu/bias-assessment-response-support/](https://studentaffairs.usc.edu/bias-assessment-response-support/)

- **The Office of Disability Services and Programs**
  Provides certification for students with disabilities and helps arrange relevant accommodations. [http://dsp.usc.edu](http://dsp.usc.edu)

- **Student Support and Advocacy – (213) 821-4710**
  Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. [https://studentaffairs.usc.edu/ssa/](https://studentaffairs.usc.edu/ssa/)

- **Diversity at USC**
  Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. [https://diversity.usc.edu](https://diversity.usc.edu)

- **USC Emergency Information**
  Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, [http://emergency.usc.edu](http://emergency.usc.edu)

- **USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime.**
  Provides overall safety to USC community. [http://dps.usc.edu](http://dps.usc.edu)