

CTIN 499: Level Design Workshop – Syllabus

USC School of Cinematic Arts

Instructor:

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Instructor:

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TBD

Course Description and Rationale:

"Level Design is where the rubber hits the road."

-- **Jay Wilbur**, Vice President of Biz Dev, Epic Games

The creation of original games and game mechanics is a wholly valuable skill and is one which is taught thoroughly in the Interactive Media Division, however the art of level design is something very different from what we teach in other courses, and it's a skill that will be very valuable to you as you go out into the games industry.

The following are all components of good level design:

1. Understanding of the Flow of Space – You will gain an understanding of how players tend to move through space in several different circumstances, including 2D platformers, 3D first-person shooters, and 3D narrative spaces.
2. Understanding of Game Mechanics – Level design is the design of the space in which the player encounters the game mechanics. Good level design can give the player a good working understanding of the mechanics, while bad level design can ruin even the best mechanics.
3. Understanding of Narrative Experience Design – The level designer creates the individual player's narrative. This isn't the embedded narrative that we speak of when discussing dramatic elements in Game Design Workshop, rather this is the creation of each player's personal experience in the game.

In this class, you will be making many levels for many different game engines, and the levels you create will be tangible portfolio pieces that you can show to potential employers as examples of your design abilities.

"A level designer is not just an architecture monkey or a guy who throws 'cool stuff' into the pot of development. Above and beyond everything else they need the ability to judge what is fun, what gameplay elements work and what do not. He needs to judge what content works in any context while making sure his work is cohesive with the rest of the game."

-- **Cliffy B**, Design Director, Epic Games

Design Projects: Students in the class will work on several design projects over the course of the semester. Engines which we may work with include: Knytt Stories, UDK – Unreal Development Kit, Sauerbraten, and Little Big Planet.

Student Presentations of Level Research: Throughout the class, students will be working in pairs to research and find great levels that demonstrate the topics we'll cover. They will then present those levels to the rest of the class in short presentations during class. Roughly 3 pairs of students will be presenting each week.

Lecture Information: Tuesdays 4-6:50p

Office Hours: By Appointment Only

Prerequisites: CTIN 488 or Instructor Approval (only given in rare cases)

Required Textbooks:

The Hows and Whys of Level Design 2nd Edition, by Sjoerd "Hourences" De Jong
<http://www.hourences.com/the-hows-and-whys-of-level-design-about/>

Level Up!: The Guide to Great Video Game Design, by Scott Rogers

Recommended Reading:

A Pattern Language: Towns, Buildings, Construction by Christopher Alexander
Towards a Ludic Architecture by Steffen Walz

Evaluation of student performance:

Individual Design Project 1	15%
Individual Design Project 2	15%
Individual Design Project 3	20%
Group Design Project (P4)	30%
Participation	20%
Total:	100%

Research presentations are included in your Participation grade.

Design Assignment Playtest / Critique Requirements:

Participating in in-class play tests is a requirement of the class. During each play test session, designers will observe testers (their peers) playing their game. Designers must take notes throughout this process, and at the end of the playtest session, each tester will fill out an online survey which will be available to the designers. All of these documents will be evaluated as part of the assignment grade.

Course Website:

Available on USC Blackboard.

Missing an Assignment, Incompletes:

The only acceptable excuses for missing an assignment or taking an incomplete in the course are personal illness or a family emergency. Students must inform the instructor before the assignment is due and present verifiable evidence in order for a make-up to be scheduled. Students who wish to take incompletes must also present documentation of the problem to the instructor before final grades are due. Incompletes are not available before the Week 12 withdrawal deadline.

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 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.

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/>.

Instructor Bios:

SCOTT ROGERS

A game industry professional since 1993, Scott received a Bachelor of Arts in Radio, Television and Film (Screenwriting Emphasis) and a Bachelor of Arts in Fine Arts (Illustration Emphasis) at California State University at Long Beach. While attending, Scott was a student instructor of the Advanced Screenwriting course for 2 years. After graduation, Scott worked at Park Place Productions as an artist on sports and action video games. He designed the "greatest hits" title Pac-Man World (PS1) and wrote the narrative of the "greatest hits" title Soul Blade (PS1) while at Namco Hometek. Scott also worked at Capcom Studio 8 where he was the lead designer on the "greatest hits" titles Maximo: Ghost to Glory (PS2) and Maximo vs. Army of Zin (PS2). He was a senior designer at Sony Santa Monica where he designed the "greatest hits" title God of War (PS2)—his opening level of the game is voted as one of the "top ten levels of all time" by several on-line and gaming magazines.

Scott worked as a Creative Manager at THQ where he has managed the design of over 30 games including Darksiders, Red Faction: Armageddon, the Spongebob Squarepants series and the Drawn to Life series. He is a top-rated lecturer at the Game Developers Conference and Montreal Game Summit and has also lectured at USC and Walt Disney Imagineering. Scott is the author of the highly acclaimed book on game design: "Level Up! The Guide to Great Game Design" published by Wiley & Sons (2010)

JEREMY GIBSON

Jeremy has been a faculty member at USC since 2009, focusing primarily on game design and rapid prototyping. Prior to joining the USC faculty, Jeremy was a faculty member at the Masters of Digital Media Program at Great Northern Way Campus in Vancouver, BC and an Associate Producer and Designer at Electronic Arts / Pogo.com, where he designed and produced the game Crazy Cakes. He served as President of Digital Mercenaries, Inc. from 2001-2003 and is currently the Vice President of Airship Studios Corp. In addition to his recent teaching, he has also created and taught game design and new media courses for Texas State University in San Marcos, Austin Community College, and the University of Texas at Austin.

Jeremy Gibson received a Masters of Entertainment Technology from Carnegie Mellon University and a B.S. in Radio, Television, and Film from the University of Texas at Austin. While at Carnegie Mellon, his team of students created the multiplayer game, S kyrates, that won the Silver Gleemax Award for Strategic Gaming at the 2008 Independent Games Festival and Best Simulation Game of 2008 from JaysGames.com. He has worked as a lead programmer and prototyper for companies such as frog design and Human Code and, while in graduate school, worked as an intern for both Walt Disney Imagineering and the Spore team at Maxis.

Course Outline: (This material is subject to change)

Week 1: Overview / You are a level designer

Lecture: History of themed game level design. Handout - theme in level design/How to create an outline. The four levels of level, Static level, 2D, 2.5D, 3D, Isometric.

Assignments: Begin Student Research 1: Great 2D, single-player levels (SR1)

Reading: **THaWoLD:** pp. 8-20 **Level Up:** pp. 37-48

Week 2: Dungeon Master 101

Lecture: How to create paper maps and what we can learn from D&D. Pacing and Interest Curve. Review Classic Level Design – learn how to critically evaluate game design.

Student Research 1: Present 2D Levels (1/3)

Assignments: Begin Project 1 – 2D Single-Player Level Project (P1)
P1 – Mockup your 2D Level

Reading: **THaWoLD:** pp. 23-37 **Level Up:** pp. 72-79

Week 3: 2D Gameplay Mechanics

Lecture: Indirect Control. Reward systems - how to move a player through a level using in-game reward systems and positive reinforcement. Enemies and how they help create level design.

Student Research 1: Present 2D Levels (2/3)

Assignments: P1 – Gray-box your level

Reading: **THaWoLD:** pp. 57-64.5 **Level Up:** pp. 92-109

Week 4: Indirect Control / Sound / AI

Lecture: Everything I Learned about Level Design, I learned from Disneyland. Working with sound. Working with AI

Student Research 1: Present 2D Levels (3/3)

Assignments: P1 – Final your level

Begin Student Research 2: Great 3D, first-person levels (SR2)

Reading: **THaWoLD:** pp. 64.5-90, 123-125, 168-172 **Level Up:** pp. 121-152

Week 5: Moving to the Third Dimension

PROJECT 1 DUE

Lecture: Transitioning from 2D to 3D space.

Student Research 2: Present First-Person Levels (1/3)

Assignments: Begin Project 2 – 3D Multiplayer Deathmatch Level Project (P2)

P2 – Mockup

Reading: **THaWoLD:** pp. 39-56 **Level Up:** pp. 197-239

Week 6: Moving to Multiplayer

Lecture: Creating Maps for Multiple Players.

Student Research 2: Present First-Person Levels (2/3)

Assignments: P2 – Gray-box

Reading: **THaWoLD:** pp. 91-109 **Level Up:** pp. 281-328

Week 7: Testing Levels

Lecture: HEAT maps, focus groups. What to do if things go wrong.

Student Research 2: Present First-Person Levels (3/3)

Assignments: P2 – Final your level

Begin Student Research 3: Great 3D, third-person levels (SR3)

Reading: **THaWoLD:** pp. 110-122, 126-132 **Level Up:** pp. 331-353, 465

Week 8: Third-Person Levels

PROJECT 2 DUE

Lecture: Designing for third-person camera and gameplay.

Student Research 3: Present Third-Person Levels (1/3)

Assignments: Begin Project 3 – 3D Third-Person Level Project (P3)

P3 – Mockup

Reading: **THaWoLD:** pp. 57-69, 159-161 **Level Up:** pp. 361-378

Week 9: Reality vs. Game-ality

Lecture: Designing for games based on real spaces and vice versa.

Student Research 3: Present Third-Person Levels (2/3)

Assignments: P3 – Gray-box

Reading: **THaWoLD:** pp. 135-152, 162-164 **Level Up:** pp. 381-391

Week 10: Puzzles

Lecture: The world as a puzzle. Designing level mechanics.

Student Research 3: Present Third-Person Levels (3/3)

Assignments: P3 – Final your level

Reading: **THaWoLD:** pp. 153-156 **Level Up:** pp. 393-404

Week 11: Non-Linear Spaces

PROJECT 3 DUE

Lecture: Designing sandboxes and open worlds. Pitching group projects.

Assignments: Begin Project 4 – Collaborative Level Project (P4)
P4 – Concepting

Reading: **THaWoLD:** pp. 157-158 **Level Up:** pp. 459

Week 12: Move Different

Lecture: Designing for swimming, flying, vehicles, and more.

Assignments: P4 – Mockup

Reading: **THaWoLD:** pp. 165-167 **Level Up:** pp. 461-463

Week 13: Bosses

Lecture: How to design the world's greatest boss fight and why not to do it.

Assignments: P4 – Gray-box

Week 14: Social Spaces

Lecture: Designing hubs, hangouts, and hideouts. Social spaces and "non-playable" environments as level design.

Assignments: P4 – Alpha your level

Week 15: Light at the End

Lecture: Class wrap-up. Presentation/playthrough of P4 betas.

Assignments: P4 – Beta your level

Final Exam: Present and Play P4 Finals