



Level Design and Development for Video Games ITP 491x (4 Units)

Objective The purpose of this course is to extend the concepts and processes learned in the Video Game Design course, through a focus on level design. Students will focus on the roles of narrative, perspective, and interaction and their relationships to effective game design. In addition, through hands-on experience, students will gain expertise in tools used for design, development, management, and tracking of game levels.

Concepts The video game design process is the central component for all video game design. It is from the design documents that game play, programming, audio, and visual aspects of the game arise. In this course, students will learn the various roles involved in video game creation, the types of documents needed for all phases of game development, how to manage the game development process, and tools available to aid in these practices.

Prerequisite ITP499x Level Design and Development for Video Games

Lecture 4 hrs/week

Textbooks 1. *Pause and Effect*, by Mark Stephen Meadows, New Riders Publishing, ISBN 0-7357-1171-2
2. *Course reader*

Grading The following point structure will be used in determining the grade for the course. Final grade will be based upon the total points received.

Project 1: TBD	100
Project 2: TBD	100
Project 3: TBD	100
Project 4: TBD	100
Project 5: TBD	200
Project 6: TBD	100
Class participation	100
TBD	200
TOTAL POSSIBLE	1,000

In creating the 7 projects, at least 3 animation packages must be used. One per project.

Policies *Make-up policy for exams:* To make up for a missed exam, the student must provide a satisfactory reason (as determined by the instructor) along with proper documentation. Make-up exams are

only allowed under extraordinary circumstances.

Projects: It is the student's responsibility to turn in lab projects on or before deadlines as set by the instructor.

Late Projects: Rules for late project submission will be established by the instructor.

Academic Integrity

- The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tension accompanying examinations. When the instructor determines a violation has occurred, appropriate action, as determined by the instructor, will be taken.
- Though working together is encouraged, the projects must be your own effort. "Duplicate" projects will all receive zero points and possible referral to the Office for Student Conduct.
- All students should read, understand and abide by the University Student Conduct Code
<http://www.usc.edu/dept/publications/SCAMPUS/governance/gov03.html>

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 your 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.

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Course Outline

Week 1 – Introduction and Course Overview:

- Course objectives

- Assignments
- Class structure and participation
- Grading

Week 2 – Getting Started:

- Vision and creativity
- Audience and platform considerations
- The design doc
- Working with programmers and artists during the design phase
- The level design doc

Reading: Course reader: part 1

Project 1:

Week 3 – Game and Level Design Overview:

- Game mechanics, flow, and pacing

Reading: Course reader: part 2

Week 4 – Level Design:

- Balance, power ups, hooks

Reading: Course reader: part 3

Project 2:

Week 5 – Level Design Tools:

- Design document tools
- Project management
- Asset management tools

Reading: None

Project 3:

Week 6 – Level Design, cont'd:

- Challenge and skill levels
- Impact of genre on level design

Reading: Course reader: part 4

Week 7– Perspective, Narrative, and Interaction

- Dimensional, emotional, individual, and social perspectives
- Subjective and objective perspective
- Words & imagery
- Forms, rules, and principles of interaction
- Interaction design

Reading: Pause and effect: Chapter 1

Week 8 – Perspective, Narrative, and Interaction

- POV (1st, 2nd, 3rd person)
- Narrative imagery,
- Themes and metaphors
- Microscopic and macroscopic Interaction

Reading: Pause and Effect: Chapter 2

Project 4:

Week 9 – Level Creation Tools

- Programming and scripting
- 2D and 3D software
- Audio creation and mixing

Reading: None

Week 10 – Level Design Tools (cont'd)

- Paper & pencil
- Vector and raster graphics
- CAD
- Narrative development

Reading: None

Week 11 – Interface design

- Metaphor
- HCI: Cognitive, spatial, and motor considerations

Reading: Course reader: Part 5a

Project 5:

Week 12 – Interface design, cont'd:

- Visual cues and feedback
- Icons and symbols
- Color
- Scale

Reading: Course reader: Part 5b

Week 13 – Perspective, Narrative, and Interaction

- Architecture as narrative
- POV as narrative
- 3D and narrative
- Human interaction
- Discovery and constructivism

Reading: Pause and Effect: Chapter 3

Week 14 – Working with Teams:

- Internal versus external
- Collocated, distributed, virtual

Reading: Course reader: Part 6

Week 15 – Review of key level design, narrative, perspective, and interaction principles

Reading: None

Week 16 – Presentation and critique of Group Projects