

## USD 233 – OLATHE DISTRICT SCHOOLS

Course Title: Level Editing

Credit: ½

Grade Level: 11, 12

Course Length: 1 Semester

### **Course Description:**

This course focuses on the development of basic level editing skills for 2D/3D games, including the use of tools and techniques for creating and editing levels of various complexities and styles. Students will gain proficiency using a variety of tools, including graphics and level editing software.

**Prerequisites:** Level Design

**Instructional Materials:** Textbooks-3D Game Art “f/x & Design, Awesome Game Creation “ No Programming Required”. (Textbooks are subject to change without notice)

Teacher designed mini projects, web site projects/lessons, software included lessons/tutorials/projects.

**Instructional Strategies:** Direct instruction, demonstration, graphic organizers, application exercises, projects, cooperative groups, case studies, guest speakers, DVD(s), videos, internet.

**Assessments:** Daily work performance, teacher observation, rubric, checklist, classroom discussion, projects, research relevant to topic, application performance, exams, conferencing, portfolio, written response, sketchbook, journaling, self evaluation.

### **Course Objectives:**

- Learn appropriate level editing for specific purposes.
- Develop an understanding of basic level editing development.
- Understand Basic Elements of level editing construction.
- Develop object definitions that show control of level editing.
- Apply visual communications knowledge and skills to express ideas imaginatively.
- Use critical thinking, and problem solving to communicate ideas visually.
- Produce environment setups and player setups that demonstrate basic knowledge of expository and narrative communication processes and level editing.
- Develop skill in the use of techniques, procedures and level editing concepts.
- Learn appropriate use of player positions, environments, audio effects, special effects, weapon and projectile definition strategies to add impact and realism to a game level.

## **Course Content:**

### **I. Introduction to Level Editing**

- Level Editing Development
- Level Editing Terminology
- Level Editing Technology/Development

### **II. Level Editing Production Process**

- Level Editing Strategies
- Level Editing Teams
- Level Editing Work Flow

### **III. Reality Factory**

- Introduction to Reality Factory
- Reality Factory Tools
- Installing Reality Factory
- Reality Factory Entity Overview
- Bitmaps Using Alpha Maps
- Heads Up Display
- Compass
- Player Position
- Attributes
- HUD Element Activation
- Weapon and Projectile Definition
- Modifying the Menu
- Defining the Graphics

### **IV. Playing in the Street**

- Environmental Setup
- The Player Start Entity
- The Environment Set Up Entity
- The Player Set Up Entity
- Command Panel

### **V. Giving the Player Attributes**

- Attribute Entity
- The Envelop Audio Setup Entity

## **VI. Audio Effects**

- The Audio Source 3D Entity
- The Sound Track Toggle Entity
- The Streaming Audio Proxy Entity

## **VII. Model Entities**

- The Door Entity
- The Moving Platform Entity
- The Trigger Entity
- The Change Level Entity

## **VIII. Special Effects**

- Teleporter Entity
- Teleport Target Entity
- Morphing Field Entity
- Particle System Proxy Entity
- Flip Book Entity
- Corona Entity
- Dynamic Light Entity
- Electric Bolt Entity
- Electric Bolt Terminus Entity
- Floating Particles Entity
- EChaos Entity
- Rain Entity
- Spout Entity
- Flame Entity
- Area Effects in Zones

### **METHODS OF EVALUATION OF COMPETENCIES:**

Evaluation of student mastery of course competencies will be accomplished using the following grading scale.

#### **Grading:**

- A = 90 -100%
- B = 80 - 89%
- C = 70 - 79%
- D = 60 - 69%
- F = 0 - 59%

#### **Extra Credit: The instructor must approve project.**

0-5 points is given for extra credit per approved project. Project must be finished and handed in on specified date at the beginning of class. Only four approved projects per semester allowed.

