

OHLONE COLLEGE
Ohlone Community College District
OFFICIAL COURSE OUTLINE

I. Description of Course:

1. **Department/Course:** MM - 119
2. **Title:** Video Game Development
3. **Cross Reference:**
4. **Units:** 3
Lec Hrs: 2
Lab Hrs: 6
5. **Repeatability:** Yes Times:2
6. **Grade Options:** Letter Grade, May
Petition Credit/No Credit (GC)

7. **Degree/Applicability:**
Credit, Degree Applicable, Transferable -
CSU (T)
8. **General Education:**
9. **Field Trips:** Not Required
10. **Requisites:**
Prerequisite
MM 116 Three Dimensional Modeling
and
MM 118 Introduction to Video Game
Design
Advisory
MM 114
MM 115 Three Dimensional Animation

12. Catalog Description:

This class focuses on producing video games using 3D software and game engines. Students work in a team environment and follow production practices employed in the video game industry.

13. Class Schedule Description:

Develop video games using 3D software and game engines

14. Counselor Information:

This course can be included as an elective in the Certificate of Achievement and AA degree in Multimedia. This course is required for the Fast Track certificate in Video Game Development.

II. Student Learning Outcomes

The student will:

1. Explain video game terminology.
2. Explain the development process employed in the video game industry.
3. Differentiate game engines.
4. Construct projects in a team environment while following production practices employed in the video game industry.
5. Develop a working level and create an executable file for a video game.

III. Course Outline:

- A. Introduction to the different game engines
 - 1. Terminology and technology
 - 2. Tools employed to develop a game
- B. Project development part 1: learning the process
 - 1. Introduction to using a level editor
 - 2. Using a level editor to create a simple map
 - 3. Importing 3D models
 - 4. Developing ideas
 - 5. Creating 3D models
 - 6. Optimizing 3D models for games engines
- C. Project development part 2: planning
 - 1. Determine the design document for the game
 - 2. Creating a team project
 - 3. Developing an artistic style for the game
 - 4. Character development
 - 5. Develop a schedule and a timeline
- D. Project development part 3: building a level
 - 1. Creating and importing assets
 - 2. Testing the game play of the level
 - 3. Creating a visual atmosphere in the level with lights and textures
 - 4. Adding sound FX
 - 5. Creating interactive elements: trigger elements
 - 6. Testing the level
- E. Project development part 4: completing the video game
 - 1. Creating an executable
 - 2. Group presentation of the game and its components
- F. Looking into the future:
 - 1. Job industry tips
 - 2. Need for networking
 - 3. Marketing student's skills

IV. **Course Assignments:**

- A. Reading Assignments
 - 1. Read the required book
 - 2. Read the behind-the-scenes articles on a specific video game
- B. Projects, Activities, and other Assignments
 - 1. Organize in teams and distribute roles and the following activities to each one of the members:
 - 2. Model, optimize, and import 3D models to a game engine
 - 3. Add lights and textures to the level
 - 4. Add sound FX
 - 5. Create interactive elements: trigger elements
 - 6. Test the level
 - 7. Create an executable
 - 8. Create a web site explaining the game and the different activities to accomplish
- C. Writing Assignments
 - 1. Write a proposal for developing a video game, include timeline, roles assigned to team members.

V. **Methods of Evaluation/Assessment:**

- A. Oral presentation of ideas related to the game
- B. Participation in class
- C. Completing assigned tasks
- D. Collaboration with team members
- E. Completion of level and executable file for a video game

VI. Methods of Instruction:

- A. Laboratory
- B. Demonstration
- C. Computer Assisted Instruction
- D. Collaborative Learning
- E. Lecture

VII. Textbooks:

Required

1. Busby, Jason *Mastering Unreal Technology: the Art of Level Design* CD-Rom Edition, Sams Publishing, 2005 ISBN: 0672326922

Optional

VIII. Supplies:

- A. USB Flash drive or CD-ROM (approximate cost \$20)

CID 1879