1. **COURSE** **TITLE**: Introduction to Game Development

**COURSE** **NUMBER**: 2265 **CATALOG** **PREFIX**: CSCI

**II.** **PREREQUISITE**:

CSCI 1165 - Digital Design

CSCI 1145 - Introduction to Multimedia

**III.** **CREDIT** **HOURS**: 3 **LECTURE** **HOURS**: 2

**LABORATORY** **HOURS**: 1 (2 contact hours) **OBSERVATION** **HOURS**: 0

**IV.** **COURSE** **DESCRIPTION**:

Students will learn how to plan, design and create games in Unreal 4 Game Engine. Students will learn how to develop ideas, storyboard plots, design characters and interaction, and then assemble all elements into fully functional games and simulations. Students will learn the basics of gaming, simulation, interaction and 3D technologies.

**V.** **GRADING**:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F = 0 - 59

**VI. ADOPTED** **TEXTBOOK** **(S):**

*Unreal Engine Game Development Cookbook, 2015*

PACKT Publishing

Doran

ISBN: 9781784398163

**VII.** **COURSE OBJECTIVES**:

1. Learn the Unreal Engine interface
2. Identify various game and simulation Genres
3. Game idea development
4. Storyboard out video games
5. Develop level designs
6. Identify and/or develop sound and music
7. Identify and acquire or create graphics
8. Write script code for interactivity
9. Build user interfaces

**VIII. COURSE METHODOLOGY**

Students will be working hands-on in the Unreal 4 game development engine to complete assignments in textbook and develop their own game ideas.

**IX.** **COURSE** **OUTLINE**: SAMPLE WORK SCHEDULE

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| --- | --- | --- |
| **Weeks** | **Content** | **Course Objectives** |
| Week 1 | Chapter 1 – Getting Acquainted with the UE4 Interface | 1, 2, 3 |
| Week 2 | Chapter 2 – Level Design – Building Out Levels or Greyboxing | 1, 2, 3, 4, 5 |
| Week 3 | Chapter 3 – Creating Quality Interior Environments | 2, 5 |
| Week 4 | Exam and Project Work | 1, 2, 3, 4, 5 |
| Week 5 | Chapter 4 – Building the Great Outdoors-Exterior Environments | 2, 5 |
| Week 6 | Chapter 5 – Lights, Camera, Action-Cinematics | 2, 4, 7 |
| Week 7 | Exam and Project Work | 2, 4, 5, 7 |
| Week 8 | Chapter 6 – Lighting and Shadows | 5 |
| Week 9 | Chapter 7 – Art Pipeline-Working with Materials | 6, 7 |
| Week 10 | Exam and Project Work | 4, 5, 6, 7 |
| Week 11 | Chapter 8 – Blueprint Scripting-Level Effects | 4, 5, 8 |
| Week 12 | Chapter 9 – C++ Programming-Gameplay | 8 |
| Week 13 | Chapter 10 – User Interface | 8, 9 |
| Week 14 | Chapter 11 – Publishing and Deployment | 1, 3, 4, 5, 6, 7, 8, 9 |
| Week 15 | Project Work Completion | 4, 5, 6, 7, 8, 9 |
| Week 16 | Final Exam and Project Submission | 4, 5, 6, 7, 8, 9 |

**X.** **OTHER** **REQUIRED** **SOFTWARE,** **BOOKS** **AND** **MATERIALS**:

None

**XI.** **EVALUATION**:

Method of grading will be determined by instructor and will follow SSCC grading policies as outlined in the college catalog.

**XII.** **SPECIFIC** **MANAGEMENT** **REQUIREMENTS**:

None

**XIII.** **OTHER INFORMATION:**

**FERPA:** Students need to understand that your work may be seen by others. Others may see your work when being distributed, during group project work, or if it is chosen for demonstration purposes.

Students also need to know that there is a strong possibility that your work may be submitted to other entities for the purpose of plagiarism checks.

**DISABILITIES:** Students with disabilities may contact the Disabilities Service Office, Central Campus, at 800-628-7722 or 937-393-3431.