Course Title: SDE 104 Multimedia Authoring

Course Leader: David Maruszewski

Expected Learning Outcomes for Course

- Demonstrate problem solving skills through verbal and written media
- Apply principles of video game design and issues designers face in game creation
- Create narrative environments, stories and characters associated with games
- Define game genres, and the differences between them, with reference to creating each
- Demonstrate game balancing
- Demonstrate fundamentals of gaming and simulation design in the stages of concept and development
- Work productively in a team environment
- Apply programming and artistic theory in practical applications
- Logically analyze and/or formulate scripts and/or programs to solve problems
- Understand and articulate interactivity in the gaming industry, including the connectivity between computer art and programming
- Address simulation and gaming solutions with professionalism and ethics
- Apply rudimentary Physics and Trigonometry principles

Assessment

(How do students demonstrate achievement of these outcomes?)

Students are required to complete a final project which was created to test skills gained throughout the course. A full assessment rubric may be created in the future.

Three exams are issued to help confirm the findings of the project grade.

Validation

(What methods are used to validate your assessment?)

Currently, all grades sheets are held for two semesters and composite data is used to show trends. When this course reaches three sections per semester, a spreadsheet will be created in order to track outcomes. The exams should help verify or contradict findings.

Results

1. Students have a lack of desire to follow directions even when directional information is oft present and reminded
2. Many students have problems in time management
3. Physics and Math skills are lacking. It does not appear that most students have a high school level of math knowledge.
4. There are some problem solving weaknesses
5. Students can improve verbally, but on the whole, do much better than writing. Many students seem timid expressing themselves in writing
6. Programming concepts are hard for students to understand without employing them under a condition
7. Students will take more opportunity to do complete work with software than with any other venue

8. Gaming industry knowledge is easily understood by students, although sometimes hard to retain.
9. Students enjoy the creative process, often getting involved in their section of a project.
10. Students can work well in groups but some will take advantage of the group. Some of the people in the group will be timid in making those individuals accountable.

Follow-up

(How have you used the data to improve student learning?)

1. This is a continuous problem. No matter how much or little information you give them, they seem to still not understand what is desired. Much of this seems to be neglect, as they probably desire not to do that which is outlined. Class time was devoted to this, but it was getting to the point where it was removing time to cover new material.
2. Having expected deadlines with brief time in between helps, however, it does not promote student responsibility. A balance is being worked on.
3. More Math and Physics problems are handled in class. Math and physics have been spread over many classes now in order to help the students.
4. Tutorials and working with students in class helps with this. The smaller the groups the better.
5. More writing assignments are being implemented so that they will lose this fear.
6. Reworking SDE 104 and SDE 205 helped with this much. Instead of a theory clss and then a practice class, we now do them concurrently. It is hard in the beginning but students do receive better growth.
7. Game engine software was integrated into the teaching model to reach students better
8. Slides were used to generate discussion. We then implemented these ideas in an ongoing game that we are creating.
9. This is god and bad. Sometimes they get wrapped up in only their section. I am trying to get them to see that their section is related to the whole. Then, they will be interested in the whole more. Projects definitely help the student get interested and learn more.
10. Peer reviews were created to grade all class mates. Still some were reticent to potentially hurt others grades. A different rubric is going to be used in order to get at an explanation of performance rather than students actually grading each other.

Budget Justification

(What resources are necessary to improve student learning?)

- A modern and relevant game engine is a great tool to get students interested and understand the theory and rudimentary application that we do in class.
- Tutorials are useful to help with software issues such that time may be spent in class working on theory and practice.
- Game theory works well with programming. It allows them something to program. The game engine and other software are useful for the learning experience.