Program Title: IST – Simulation and Digital Entertainment: Programming and Development Track

Program Team: David Maruszewski

Expected Learning Outcomes
1. Adeptly simulate in 2 dimensions and 3 dimensions
2. Analyze, select and apply tools appropriate for a specific solution
3. Logically formulate scripts and/or programs to solve problems
4. Understand and articulate interactivity in the gaming industry, including the connectivity between computer art and programming
5. Apply programming theory in practical applications
6. Demonstrate problem solving skills through verbal and written media
7. Apply rudimentary Physics and Trigonometry principles

Assessment (How do students demonstrate achievement of this outcome?)
At the end of their studies, students compile portfolios which they present to an HCC Advisory Board. This board is an independent body to any teaching body of HCC.

The students have an alternative to presenting to the Advisory board which is to serve in an internship. This internship has a rubric associated with it which helps us evaluate the student, and in turn, evaluate our program from independent employers' perspectives.

Validation (What methods are used to validate your assessment?)
Currently, all data are held used to show trends. The advisory board data are compiled into a spreadsheet.

Results (What do the data show?)
1. Students performed well in categories of Observance of Copyright and Professionalism. They scored 4.1 and 4.1 out of 5 respectively in 2017. This translates to "above expectations" (4.0).
2. Interactivity received the lowest score of 3.6. 3.0 is "meets expectation."
3. Overall, the average score for all categories was 3.9. This was up from 3.4 from last year.
4. From personal observation, students' portfolios weren't as strong because none of the students this year were graduating in Spring 16.

Follow-up (How have you used the data to improve student learning?)
This was only done once and will be followed up next year. The SDE program has now split off into 3 tracks. Initial data was all blocked together. More data from the students' specific to their tracks is needed. The following is based on the aggregate:
1. It is good to see the important dryer parts do get through to the student. Implementing these parts in this course as well as SDE 102, 130, 203.
2. This is a little touchy. The best classes to approach improvement on this are SDE 207. We can spend more time improving old projects.

3. Overall, the average seems to be decent. I don't think dramatic fixes would work in this situation. It may negatively disturb the scores. I think that pushing my own knowledge in all areas would benefit the students. I can pass down more if so.
4. As you can see from 2, this was much better.

Budget Justification
(What resources are necessary to improve student learning?)
Professional input like internships is needed. Some more Professional Development may be needed for myself.