COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

Prepared by: Jeff Jones  Spring 2007
Revised by: Dave Bowman  Spring 2010
Status: Permanent

A. Identification:
1. Subject Area: Computer Information Systems
2. Course Number: CIS 165
3. Course Title: Basic Game Design and Creation
4. Credit Hrs: 3
5. Catalog Description:

   This course provides students with an introduction to game design and development. Topics include creating objects, events, and multiple levels of game interaction. Three lecture. May be taken for S/U credit.

B. Course Goals:
To provide students with necessary knowledge and skills to design and build 2d and 3D games while understanding basic object oriented programming in a structured GUI environment. This will include design, building, event creation, animation, backgrounds, levels, and technical instruction writing.

C. Course Outcomes:
Students will:

1. Design a game
   a. Create a story and setting
   b. Construct and develop game characters
   c. Define game audience and genres
2. Create a game
   a. Install game creation software
   b. Create a simple game and define objects
   c. Test the game
3. Add events to a game
   a. Create game rooms
   b. Add actions
   c. Add collision events
4. Construct animation
   a. Create image with movement depending on game location and events
   b. Save image in GIF or Strip format
   c. Generate object properties for animated GIF
5. Create game background
   a. Construct background theme
   b. Create background music
c. Create background graphics
6. Create game levels of play and transitions
   a. Generate logical development of transitions to advancing game levels
   b. Use timers to change levels of game play
   c. Add game help screens
7. Create title page and directions
   a. Construct graphics and text to represent game story
   b. Develop clear and concise directions for game play
   c. Publish game for distribution and beta testing

D. Course Outcomes Assessment:
At a minimum, methods and techniques used to measure student outcome achievement will include:
   1. In-Class Projects and Programs
   2. Homework Projects and Programs
   3. Midterm Project
   4. Final Project – Capstone Game Program

E. Course Content:
Will include:
   1. Overview of Object Oriented Programming
   2. Overview of Game Design and Structures
   3. Building 2D and 3D games
   4. Events Management, Object Creation, Multiple Levels and Backgrounds
   6. Titling, Packaging and Instruction Writing