

COCONINO COMMUNITY COLLEGE

COURSE OUTLINE

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Status: Permanent

Spring 2007
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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