

COURSE OUTLINE**Art 268****Game Play Mechanics and Prototyping****I. Catalog Statement**

Art 268 trains students in the design of a complete game concept document. Lectures will focus on case studies of successful games and game concept presentations, with special attention paid to the factors that make a game concept marketable both conceptually and in terms of game-play. Students will be given assignments to analyze the strengths and weaknesses of game design proposals. Game authoring software will be fully described so that students are able to envision using software components to create game content. The class ends with a final project in which students create and present their own game concept documents.

Lecture/Demonstration Hours – 3.0

Units – 3.0

Prerequisite: Art 267 or CS/IS 267, or the equivalent.

II. Course Entry Expectations

Skills Level Ranges: Reading 4; Writing 4; Listening/Speaking 4; Math 4.

Prior to enrolling in the course, the student should be able to:

1. discuss the history of game design and development and where it is headed in the future;
2. discuss the game market and various game types and elements;
3. explain and discuss the techniques of storytelling, character creation, game-play creation and level design;
4. explain and discuss the game development process and the roles of the various team members in the process.

III. Course Exit Standards

Upon successful completion of the required coursework, the student will be able to:

1. discuss the strengths and weakness of a game concept document;
2. explain the play mechanics implied by a game design;
3. describe a game in terms of the relationship between the overall concept and user motivation;
4. design a complete game concept document and present it to the class;
5. discuss game engines and their strengths and weaknesses;
6. utilize game authoring software to create a simple prototype.

IV. Course Content

Total Contact Hours = 48

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| <p>A. Case Study of a Successful Game</p> <ol style="list-style-type: none"> 1. Player incentive 2. Aesthetic design 3. Real-time attributes 4. Strategic and tactical play processes 5. Cultural context and impact 6. Production process | <p>8 hours</p> |
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- 7. Play testing
- B. Game Authoring Software 16 hours
 - 1. Modules
 - 2. Operation
 - 3. Resource management
 - 4. Simple prototype
- C. Project: Analysis of Game Documents 8 hours
 - 1. Cultural implication of game concept
 - 2. Formal and dramatic elements of game play
 - 3. Position of game concept within genre and industry
 - 4. Viability
- D. Project: Game Document Creation 8 hours
 - 1. Statement of overall concept
 - 2. Outline of play narrative
 - 3. Character profiles
 - 4. Environmental attributes and aesthetics
 - 5. Physical model
- E. Introduction to Game Engines 8 hours
 - 1. Strengths and weaknesses of game engines
 - a. Why programming enhancements are needed
 - b. Analyzing the limitations of various engines
 - 2. Selecting the right engine for a project
 - 3. Enhancing an game engine
 - 4. Using a basic game engine

V. **Methods of Presentation**

The following instructional methodologies may be used in the course:

- 1. lecture/demonstration;
- 2. hands-on activities;
- 3. multimedia;
- 4. online.

VI. **Assignments and Methods of Evaluation**

- 1. Midterm examination.
- 2. Final examination.
- 3. Projects (e.g. use game authoring software to develop a prototype for a simple first person shooter-style game).

VII. **Textbooks**

DeMaria, R. and J. Wilson. High Score. Current Edition.

Boston: Course Technology, 2011.

10th Grade Textbook Reading Level. ISBN: 978-1-4354-5439-2.

Darby, J. Awesome Game Creation, No Programming Required. Current Edition.

Boston: Course Technology, 2011.

10th Grade Textbook Reading Level. ISBN: 978-1-5845-0534-1.

Finney, K. 3D Game Programming All in One. Current Edition.
Boston: Course Technology, 2011.
10th Grade Textbook Reading Level. ISBN: 978-1-5986-3266-8.

VII. Student Learning Outcomes

Upon successful completion of the required coursework, the student will be able to:

1. analyze strengths and weaknesses of game design concept.
2. create a game planning/design document.