COURSE OUTLINE

Course Number  Course Title  Credits
GAM 120  Game Design Theory & Culture  3

Hours:  Co- or Pre-requisite  Implementation
1 lecture/4 Lab  DMA105 or permission of instructor  Spring 2010

Catalog description (2012-2013 Catalog):
Students explore the historical and cultural significance of play through human history to include today’s video game phenomenon by examining many game models across several genres. Conceptual and production processes involved in current industry game design and development are introduced, with particular emphasis on the design of creative models expressing gaming concepts.

Is course New, Revised, or Modified?
This course is the first in a series of four courses to support the new Game Design program

Required texts/other materials:
- Understanding Video Games: The Essential Introduction by Nielsen, Smith and Tosca, published by Routledge
- Game Design & Development: Introduction to the Game Industry by Michael Moore and Jennifer Sward, published by Prentice Hall

Revision date:  Course coordinator:
Spring 2013  Instructor Ric Giantisco, X3458, giantisr@mccc.edu

Information resources:
- International Game Developers Association: http://www.igda.org/
- Introduction to Game Development, 2nd Edition, by Steve Rabin, Charles River Media
- The Art of Game Design: A Book of Lenses, by Jesse Schell
- Game Design Workshop, 2nd Edition, by Tracy Fullerton
- GameDev.net
- Game Developer Magazine
- Gamasutra.com
- Other resources as indicated by the instructor
Other learning resources:
- Game Maker Pro – software – purchase price $625.00 for 25 copies
- Computer graphics software such as Adobe Creative Suite, and Autodesk products – currently provided
- Microsoft Office Suite – currently provided
- Consoles such as: Playstation, Wii and Xbox
- Board, card and dice games
- Pen and Paper games
- www.lynda.com for software training modules used in the course;

Course Competencies/Goals:

The student will be able to:
1. Explain the historical development of game play;
2. Discuss industry trends in game culture and business;
3. Describe technology used in video game production;
4. Analyze a game system to describe basic mechanics, dynamics and aesthetics of the game;
5. Apply interactive narrative to a game concept;
6. Produce documents and presentations specifying game design concepts;
7. Apply basic design processes to design simple game concepts;
8. Develop game concepts into prototypes;
9. Build a simple computer game;

Course-specific General Education Knowledge Goals and Core Skills.

General Education Knowledge Goals
- **Goal 1. Communication.** Students will communicate effectively in both speech and writing.
- **Goal 4. Technology.** Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.
- **Goal 6. Humanities.** Students will analyze works in the fields of art, music, or theater; literature; philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.
- **Goal 7. History.** Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.

MCCC Core Skills
- **Goal A. Written and Oral Communication in English.** Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.
- **Goal B. Critical Thinking and Problem-solving.** Students will use critical thinking and problem solving skills in analyzing information.
- **Goal D. Information Literacy.** Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.
- **Goal E. Computer Literacy.** Students will use computers to access, analyze or present information, solve problems, and communicate with others.
- **Goal F. Collaboration and Cooperation.** Students will develop the interpersonal skills required for effective performance in group situations.

Units of study

Each of the units of study for this course consists largely of experience-based learning modules with lecture instruction to support them. The units will have a project associated with the theme, where they will produce industry standard artifacts while being exposed to key concepts in game design & development. The project outcomes range from design documents and proposals to prototypes and in engine functional games. Each unit is weighted for the amount of emphasis dedicated to the topic area in the overall course.

Student evaluations will primarily consist of project outcomes, which are critiqued in class, with a smaller component of the grade generated from attendance and participation in the lab portion of the course. When appropriate, students will be given quizzes and tests to measure successful understanding of important concepts.
Unit I

Gaming History & Culture
This unit of study explores the historical timeline of game play from the beginning of recorded history through contemporary video and traditional game culture. The unit addresses questions such as who plays games, what is a game? Students will look at a range of game formats and genres, defining a broad framework for game culture. The unit addresses the impact games have on contemporary culture as a whole, while exploring topics such as diversity, community, ethics, media, gender, stereotypes, emergent behavior, patterns of play behavior and emerging demographics associated with video gaming.

Learning Objectives
The student will be able to...
- Categorize the main genres of video games; (Course Competencies 2; Gen Ed Goals 1 & 7; Core Skill A & D.)
- Explain the historical development of gaming; (Course Competencies 1; Gen Ed Goals 1 & 7; Core Skill A & D.)
- Critique contemporary theories on game culture; (Course Competencies 2; Gen Ed Goals 1 & 6; Core Skill A, B, & D.)
- Define the phenomenon of “play”; (Course Competencies 2 & 4; Gen Ed Goals 1, 6 & 7; Core Skill A & D.)
- Conduct effective research investigating contemporary game history and culture; (Course Competencies 1 & 2; Gen Ed Goals 1, 6 & 7; Core Skill A, B, D & E.)

Unit II

Video Game Industry & Business
This unit of study exposes students to the potential job opportunities available in the Game Design industry today, including local companies and skills required for entry level jobs. Students are introduced to the production process of games from concept through consumer purchasing. Students gain insight into pitching game design ideas and how they are marketed.

Learning Objectives
The student will be able to...
- Describe the production process for video games; (Course Competencies 2, 3, 4, 7; Gen Ed Goals 1 & 4; Core Skill A & D.)
- Describe job roles and responsibilities in a game development project; (Course Competencies 2; Gen Ed Goals 1; Core Skill A & D.)
- Identify marketing strategies for games; (Course Competencies 2; Gen Ed Goals 1 & 6; Core Skill A & D.)
- Create a professional pitch to sell a game idea; (Course Competencies 2, 4, 5, & 6; Gen Ed Goals 1; Core Skill A & B.)

Unit III

Analysis of Game Play: Criticism & Theory
This unit of study involves study of game play from board, card, pen & paper to video games for PC and consoles. Students develop a lexicon for common game design elements such as mechanics, dynamics and aesthetics. Game play theories are explored, while exploring best practices for contemporary game design concepts.

Learning Objectives
The student will be able to...
- Use a common lexicon when discussing game play theories and design concepts; (Course Competencies 1, 2, & 4; Gen Ed Goals 1 & 6; Core Skill A & D.)
- Apply tools from established game design systems to critique games; (Course Competencies 4; Gen Ed Goals 1; Core Skill A, B, D & E.)
- Critique games from both theoretical and practical points of view; (Course Competencies 1, 2 & 4; Gen Ed Goals 1; Core Skill A & B.)
Unit IV Interactive Narrative & Characterization
This unit of study explores narrative in an interactive medium, focusing on games. Students will investigate how story, plot and characterization can be shaped by user interactions, modifying the experience of game play.

**Learning Objectives**

The student will be able to…

- Define interactive narrative; *(Course Competencies 5; Gen Ed Goals 1 & 6; Core Skill A, B & D.)*
- Describe the influence of user-driven action on game experience; *(Course Competencies 4 & 5; Gen Ed Goals 1; Core Skill A & D.)*
- Develop an interactive narrative for a simple game concept; *(Course Competencies 5; Gen Ed Goals 1 & 4; Core Skill A, B, D & E.)*
- Create flowcharts and paper prototypes to specify concepts for interactive digital experiences;
- *(Course Competencies 1 & 2; Gen Ed Goals 1 & 7; Core Skill A & D.)*

Unit V Game Design
This unit of study focuses on the process of designing a game from concept through a playable artifact. Students study both generic models of iterative design process as well as the specific stages of design for games. Students work on small teams to achieve project goals modeling standard industry practice.

**Learning Objectives**

The student will be able to…

- Redesign an existing game model in a different game format; *(Course Competencies 4, 6, 7 & 8; Gen Ed Goals 1, 4 & 6; Core Skill A, B, E & F.)*
- Design games as a member of a dynamic team; *(Course Competencies 4, 6, 7 & 8; Gen Ed Goals 1, 4 & 6; Core Skill A, B, E & F.)*
- Specify elements of a game project such as: visual aesthetics, graphic assets, audio assets, level design, mechanics, dynamics, systems and interface; *(Course Competencies 4, 5, 6, 7 & 8; Gen Ed Goals 1, 4 & 6; Core Skill A, B, E & F.)*
- Produce a traditional game such as card or board, from concept to a usable prototype;
- *(Course Competencies 4, 5, 6, 7 & 8; Gen Ed Goals 1, 4 & 6; Core Skill A, B, E & F.)*

Unit VI Game Development
This unit of study exposes students to game development, creating simple a functioning game. Students are introduced to basic programming concepts, while developing an understanding of the programming issues associated with game development.

**Learning Objectives**

The student will be able to…

- Describe the range of programming needs associated with development of computer games; *(Course Competencies 2, 3, & 4; Gen Ed Goals 1 & 4; Core Skill A & D.)*
- Identify concepts of programming such as loops, counters, conditions, and variables; *(Course Competencies 2, 3, & 4; Gen Ed Goals 1 & 4; Core Skill A & D.)*
- Create a simple game with game design software; *(Course Competencies 4, 7, 8, & 9; Gen Ed Goals 1 & 4; Core Skill A, B, D & E.)*

(Continue for as many units as appropriate. See the attached sample.)
Evaluation of student learning:

Learning Activities:

Lectures:
- Research Fundamental
- What is a game?
- History of play/games
- Genres/Culture
- Mechanics, Dynamics and Aesthetics
- Concept Development
- Prototyping- paper/interactive
- Interactive Narrative
- Character Development
- Interface Design/ Flowcharting
- Visual Design
- Game Maker Pro
- Game Development/ Audio Design

Reading Assignments – see required books and daily class schedule for reading assignments

Lab Activities Tutorials/ Software Demos: PowerPoint, Illustrator, Photoshop and Game Maker Pro

4 Studio Projects: see below

Grading Calculations:

20% Attendance and participation in discussion, lab activities and critique. More than 5 days absent will result in no credit for attendance and participation unless special arrangements for makeup work have been established with the instructor.

65% Projects: 4 projects are averaged together for total project grade

**Project 1:** *(Units: 1, 2, 3)* Presentation - Analysis of 3 seminal games - at least one traditional board game

**Criteria for assessment:** Organized presentation; Effective delivery; Detailed research with evidence of synthesis of information; Identification of the game’s Mechanics, Dynamics and Aesthetics and how they are used to make the game meaningful and playable; Clearly described link of the game’s historical lineage and culture context; Description of the player demographics; and basic information about the company/designer that made/designed the game if available.

**Project 2:** *(Units: 1, 3, 5)* Board/card/dice game

**Criteria for assessment:** Clear evidence of critical thinking applied to develop concept for the game; Design principles and elements are effectively used to create a solid game aesthetic; Artifacts of the game are crafted well; Game is “playable” and interesting.

**Project 3:** *(Units: 1 - 5)* Design a video game concept

**Criteria for assessment:** Clear evidence of critical thinking applied to develop concept for the game. Effective use of paper prototyping to refine the game concept in an iterative process; Design principles and elements are effectively used to create a solid game aesthetic; Character development and the interactive narrative arc is clearly defined; documentation and illustrations to communicate the game’s concept; Game prototype indicates game is “playable” and interesting.
Project 4: (Units: 1-6) Design a simple video game *Criteria for assessment:* Game provides a coherent game experience; Game functions/ runs on a computer; Game is error free.

15% Practical exams – Skills based exams where students must replicate specific outcomes to measure level of learning from tutorials and demos.

**Academic Integrity Statement:**

Students are expected to comply with the college-wide requirements for academic integrity. Mercer County Community College is committed to Academic Integrity—the honest, fair, and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work. Presenting another individual’s work as one’s own and receiving excessive help from another individual will qualify as a violation of Academic Integrity. The entire policy on Academic Integrity is located in the Student handbook and is found on the college website: [www.mccc.edu/admissions_policies_integrity.shtml](http://www.mccc.edu/admissions_policies_integrity.shtml)

**Special Needs Accommodations**

Any student in this class who has special needs because of a disability is entitled to receive accommodations. Eligible students at Mercer County Community College are assured services under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. If you believe you are eligible for services, please contact Arlene Stinson, Director of Academic Support Services. She can be reached at 609-570-3525.