COURSE OUTLINE

Course Number **GAM 120**	**Course Title** **Game Design Theory & Culture**	**Credits** **3**
Hours: **Lecture/Lab/Other** **1/4/0**	**Co- or Pre-requisite** **None**	**Implementation** **Spring 2022**

Catalog description:
Students explore the historical and cultural significance of games through human history by examining various game models, systems, and genres. Current conceptual and production processes utilized in the game development industry are introduced, with particular emphasis on the design of meaningful gameplay, engaging narratives, and unique, interactive dynamics.

General Education Category:
Not GenEd

Course coordinator: (Richard Giantisco, x3457, giantisr@mccc.edu)

Required texts & Other materials: (None)

Course Student Learning Outcomes (SLO):

Upon successful completion of this course the student will be able to:

1. Explain the historical development of gameplay. [Supports ILG 1, 4, 5, 7-10; PLO 1, 4, 5]
2. Discuss industry trends in game culture and business. [ILG 1, 4-10; PLO 1, 4]
3. Describe technology used in video game production. [ILG 1, 4, 6, 7, 10; PLO 1, 4-6, 8-10]
4. Analyze a game system to describe game mechanics, dynamics, and aesthetics. [ILG 1, 2, 4, 10, 11; PLO 1-10]
5. Develop and apply an interactive narrative to a game concept. [ILG 1, 4-11; PLO 2-7, 9-10]
6. Produce design documents and pitch presentations specifying game design concepts. [ILG 1, 4-6, 8-11; PLO 2-7, 9, 10]
7. Construct simple game concepts by utilizing fundamental game principles and theories. [ILG 1-7, 10; PLO 1-7, 9-10]
8. Develop game concepts into prototypes using modern game engines and software. [ILG 1, 2, 4-11; PLO 2-10]

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 1. Written and Oral Communication in English. Students will communicate effectively in both speech and writing.
Institutional Learning Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.
Institutional Learning Goal 3. Science. Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.
Institutional Learning Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.
Institutional Learning Goal 5. Social Science. Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.
Institutional Learning 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.
Institutional Learning Goal 7. History. Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.
Institutional Learning Goal 8. Diversity and Global Perspective: Students will understand the importance of a global perspective and culturally diverse peoples
Institutional Learning Goal 9. Ethical Reasoning and Action. Students will understand ethical frameworks, issues, and situations.
Institutional Learning Goal 10. 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.
Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for Game Development

1. Understand the historical development of game play.
2. Apply the design process to the research and development of professional video game concepts.
3. Apply narrative structures in the design of video games and levels.
4. Describe and reference industry trends and technologies in video gaming.
5. Design meaningful video game experiences and game mechanics appropriate to context.
6. Create diagrams, storyboards, and prototypes to specify game design concepts.
7. Develop games with level editing and scripting tools within industry standard game engines.
8. Understand basic programming concepts and apply scripting languages to create interaction in game environments.
9. Create 2D and 3D game art assets from game concepts, utilizing professional 2D digital imaging and 3D modeling and animation software.
10. Work effectively on interdisciplinary teams producing functioning games and levels.

Units of study in detail – Unit Student Learning Outcomes:

Unit I **Game Fundamentals** & **Traditional Games [SLO 1, 2, 4, 6, 7]**
This unit of study explores the historical timeline of traditional games from the beginning of recorded history through contemporary traditional game culture. The unit addresses questions such as who plays games, what is a game? Students will look at a range of traditional game formats and genres, defining a broad framework for game culture. Students will design and develop various prototypes based on research and playtesting sessions. The unit also 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…
1. Categorize the main genres of video games.
2. Explain the historical development of traditional games.
3. Critique contemporary theories on game culture.
4. Define the phenomenon of "play".

5. Conduct effective research investigating contemporary game history and culture.
6. Design and prototype a traditional game.

Unit II Video Game History & Game Narratives [SLO 1-5, 7]

This unit of study explores the historical timeline of video games from the late 1940s through contemporary video game culture. Students will look at a range of video game formats and genres, defining a broad framework for game culture. This unit also examines the role of narrative within games and different methods and technologies utilized for delivery. 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…
1. Explain the historical development of video games.
2. Define interactive narrative.
3. Describe the influence of user-driven action on game experience.
4. Develop an interactive narrative for a simple game concept.
5. Create flowcharts and paper prototypes to specify concepts for interactive digital experiences.

Unit III Video Game Conceptualization [SLO 2-7]

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. The unit exposes students to a variety of game production technologies and practices used in the development process. Students develop design documents and digital content for use in the game production process.

Learning Objectives
The student will be able to…
1. Redesign an existing game model in a different game format.
2. Design games as a member of a dynamic team.
3. Specify elements of a game project such as: visual aesthetics, graphic assets, audio assets, level design, mechanics, dynamics, systems and interface.
4. Create and produce design documents and digital content for game concepts.

Unit IV Game Prototyping [SLO 4-8]

This unit of study enables students to create a simple, functioning game prototype using a contemporary game engine. Students are introduced to basic programming concepts, while developing an understanding of the programming issues associated with game development. The unit covers best practices for pitch presentation, layout, and game design document creation. Students are exposed to the potential job opportunities available in the Game Design industry today, including local companies and skills required for entry level jobs.

Learning Objectives
The student will be able to…
1. Describe the range of art and programming needs associated with the development of video games.
2. Construct a simple game prototype with game design software.
3. Explain the production process for video games.
4. Describe job roles and responsibilities in a game development project.
5. Identify marketing strategies for games.
6. Create a professional pitch to sell a game idea.

Evaluation of student learning:

PROJECTS:

In this class there are five projects. At the beginning of each project a document will be provided that will explain the goals, requirements, and deadlines for that project. Most of these projects will require some form of playtesting to develop and complete. Work that is turned in after class on the day that it is due will be considered late. Late assignments will be graded based on their quality and tardiness.

Project 1: Traditional Game
Project 2: Mechanical Narrative
Project 3: Character Design & Game Scenario
Project 4: Game Pitch
Project 5: Game Prototype

GRADING
Projects   60%
Quizzes   20%
Attendance   10%
Homework   10%

EVALUATION CRITERIA

Each project will be evaluated on several factors. The specific goals, deliverables, and requirements of each project will be identified in the description sheet for each project.