

# Game Development

ART - 1680 351

## Course Description

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Introduction to influential movements, principles, analysis, mechanics and theories of game play and development. Applied through a collaborative production workflow creating design documentation, and prototyping of physical and software based games. It is recommended students complete ART 1280 prior to taking this course.

Pre-Requisite(s): ART 1630

Semester: Spring

## Course Student Learning Outcomes

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- Demonstrate knowledge of Game Theory. What elements make something a game? Play (players & interaction), Pretend (reality v make believe, role playing, & narrative), A Goal (conflict), Rules (structure fairness)
- Analyze & discuss: Major figures, movements, and events in the history of games, Mediums (thought, simple objects, paper pencil, board games, software, etc.), Genres (action, adventure, simulation, puzzle, etc.), Audience, messages & purposes (media literacy, entertainment, instructional, persuasive, etc.)
- Utilizing simple physical objects and software, Create Games demonstrating the use of: Industry Standard Design Documentation, Game Theory, Core Mechanics and Game Play, User Interface
- Identify & Define components of the contemporary Game Industry: Primary members of a studio development team, Development cycle, Studio Political Realities (crunch time, layoffs, etc.)
- Exhibit traits of Professional Responsibility: Respect for copyright and intellectual property, Utilize online and other research for information to independently problem

solve production and software issues, Manage and organize digital data, Monitor file and disk space, and create archives and backups, Time Management, Meeting Deadlines.

## College Wide Student Learning Outcomes

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- Demonstrate Knowledge of Game Theory and Production processes
- Create Industry Standard Documents
- Create Basic Game Mechanics
- Demonstrate Basic knowledge of Game Scripting
- Create and Develop Original Assets

## Course Prerequisites

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ART 1630 Computer Graphics Essentials

## Engagement Plan

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Example language:

- I will respond to email within 2 business days. I will offer feedback on major assignments within 2 class periods. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.
- In this course, I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.
- Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.
- Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

## Keys for Success (how to succeed in the course)

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Remember, you are an artist first. Focus on creating visually and interactively engaging game assets, rather than getting too bogged down in technical details. Blueprints are just tools to bring your creative ideas to life.

There's a wealth of tutorials, documentation, and community resources available. Use these to supplement your learning and dive deeper into specific areas of Blueprint scripting that interest you. Remember your instructor does not know everything about every specific scenario in Game Development (nor should you require that of yourself), you will have to be patient and research and experiment with the ideas that you are creating.

## Brief Description of Assignments/Exams

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### **Weeks 1-2: Game Development Pipeline**

- Game Development Analysis and Critical thinking
- Task: Analyse a game and write a report
- Methods and processes for game development
- Task: create a GDD and Concept Art

### **Weeks 3-4: Movement and Input Control**

- Task: Over these 2 weeks, students will create a Blueprint for a character or object that responds to player input for movement.
- Challenges: Each week, focus on different aspects, such as smooth character movement, collision detection, character rotation, and player input controls.

### **Weeks 5-6: Interactive Objects**

- Task: Create a Blueprint for an interactive object (e.g., a lever or button) that, when clicked or touched, triggers a specific action.
- Challenges: Implement the interaction animation or effect and ensure it can be used in the game world.

### **Weeks 7-8: Simple Puzzle**

- Task: Design a basic puzzle scenario, such as moving objects to unlock a door. Use Blueprints to control the puzzle's logic.
- Challenges: Set up puzzle triggers, create variables to track progress, and use conditionals to check if the puzzle is complete.

### **Weeks 9-10: Health and Damage System**

- Task: Create a Blueprint for a player character with a health system. Implement damage and health regeneration mechanisms.
- Challenges: Use variables to manage health, create functions for damage calculations, and display health using UI.

### **Weeks 11-12: Sound Effects and Music**

- Task: Integrate sound effects and background music into the game using Blueprints.
- Challenges: Use audio triggers, play sounds at specific events, and allow players to adjust volume settings in-game.

### **Weeks 13-15: Personal Projects in game**

- Task: integrate blueprints in the game related to the student's interest

- Challenges: research, test and implement.

## Assignment Schedule

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Due Date	Assignment Name	Assignment Type	Points
	<a href="#">Introduce Yourself</a>	Discussion	0
	<a href="#">Introduce Yourself</a>	Discussion	0
	<a href="#">Roll Call Attendance</a>	Assignment	100
8/26/25	<a href="#">Introduce Yourself</a>	Discussion	5
9/1/25	<a href="#">Favorite Game</a>	Assignment	5
9/2/25	<a href="#">Concept of Game Design: Character Design</a>	Assignment	10
9/4/25	<a href="#">Planning and Documentation</a>	Assignment	10
9/9/25	<a href="#">Main Character-Concept 1</a>	Assignment	10
9/23/25	<a href="#">Character Movement in Level</a>	Assignment	10
10/9/25	<a href="#">Level Interactivity</a>	Assignment	10
10/30/25	<a href="#">HUD/UI/UX Design</a>	Assignment	10
11/4/25	<a href="#">Health Bar in HUD (custom events, event dispatch, user widgets)</a>	Assignment	10

Due Date	Assignment Name	Assignment Type	Points
11/18/25	<a href="#">Level Design Concepts and Procedures, Gray box.</a>	Assignment	10
11/26/25	<a href="#">Enemies, NPCs and AI</a>	Assignment	10
12/2/25	<a href="#">Final</a>	Assignment	30

## Grading Scale

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A = 100 – 93 C = 76 – 73

A- = 92 – 90 C- = 72 – 70

B+ = 89 – 87 D+ = 69 – 67

B = 86 – 83 D = 66 – 63

B- = 82 – 80 D- = 62 – 60\*

C+ = 79 – 77 E = 59 – 0

\*lowest passing grade: D-

## How to Navigate to Canvas

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## Institutional Policies

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As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

## Learning Support and Tutoring Services

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We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

## Advising and Counseling Support Services

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At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

## Student Academic Calendar

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As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)