



SDST Course Overview

Course Name/Content Area: Game Design

Grade: 10th–12th

Subject: Career Technology

Course/Content Area Description/Overview:

Game Design introduces students to the fundamentals of designing and developing games across formats - from non-digital tabletop and social games to digital concepts and prototypes. Students learn to think like designers by exploring games as formal systems of rules, as experiences of play, and as cultural artifacts. Through iterative design, playtesting, and collaboration, learners gain hands-on experience creating playable games while analyzing the relationship between mechanics, player experience, and meaning. The course emphasizes systems thinking, creativity, critical analysis, and communication within the context of the game industry and interactive media.

Overarching Essential Questions for this Curriculum Plan:

1. How do rules, mechanics, and player interaction shape a game experience?
2. In what ways can games communicate ideas, stories, or emotions?
3. How does the design process foster creativity and critical thinking?

Major Units of Study: • Game Mechanics • Game Balance • Narrative in Games • Games as a Social Experience	In this course/content area, students will develop mastery in these areas: • Analyzing games as systems by examining rules, mechanics, feedback loops, and player interaction. • Applying the design thinking process to create and refine game concepts and playable experiences. • Designing and balancing game mechanics to achieve intended levels of challenge, engagement, and fairness. • Creating and testing physical and/or digital game prototypes to generate meaningful playtesting data. • Analyzing playtest feedback and player trends to iteratively improve game designs. • Applying human-centered design principles to ensure games clearly communicate intended experiences. • Documenting game rules, systems, and design decisions so games can be understood and played by others. • Managing the game design process through planning, organization, and revision from concept to prototype. • Communicating design intent, mechanics, and player experience through written, visual, and oral formats. • Evaluating games as cultural, social, and global artifacts, including how games are produced, distributed, and experienced worldwide.
In this course/content area, students will develop mastery in these areas:	

	SDST Profile of a Graduate Connections	Focus Skills	Focus Concepts	Connections to Standards
	<i>Critical Thinking</i>	Analyze the stability of a game as a technological system by examining how individual mechanics and feedback loops influence the overall player experience. Synthesize playtesting data and analyze player trends to make informed, logical decisions regarding the refinement of game rules and processes. Analyze and implement structured design thinking processes to solve challenges within the context of the game industry.	Students understand how game mechanics, structure, and balance shape the player experience. Students evaluate existing games and connect them to player trends. Students use the design process to identify constraints and limitations when designing a game.	3.5.9-12.LL Analyze the stability of a technological system and how it is influenced by all of the components in the system, especially those in the feedback loop. 3.5.9-12.N Analyze and use relevant and appropriate design thinking processes to solve technological and engineering problems. 3.5.9-12.J Synthesize data and analyze trends to make decisions about technological products, systems, or processes.

	Communication	Apply principles of human-centered design to ensure the game's interface and mechanics intuitively communicate the intended "experience of play" to the user. Produce clear and comprehensive documentation that explains how to play the game.	Students create game manuals to effectively communicate how to play their game. Students incorporate visual cues through their game's interface.	3.5.9-12.A Use various approaches to communicate processes and procedures for using, maintaining, and assessing technological products and systems. 3.5.9-12.V Apply principles of human-centered design.
	Problem Solving	Create functional models to generate data for iterative testing, ensuring that the final game mechanics achieve a balance of difficulty and engagement. Refine game designs through an evolutionary process of systematic testing and incremental improvement based on playtesting results.	Students create game prototypes to playtest. Students collect playtest feedback data and update their games based on the playtest data.	3.5.9-12.X Implement the best possible solution to a design using an explicit process. 3.5.9-12.J Synthesize data and analyze trends to make decisions about technological products, systems, or processes.

	<i>Self-Motivated Learner</i>	Manage game design workflows by utilizing strategies, and processes to plan, organize, and control work from concept to prototype	Students create a design plan, set personal deadlines, and adjust their workflow as needed to complete their game prototype. Students collect playtest feedback data, analyze patterns in player responses, and update their games based on the data.	3.5.9-12.OO Use project management tools, strategies, and processes in planning, organizing, and controlling work.
	<i>Global Citizen</i>	Assess how globalization changes game manufacturing and distribution	Students examine where different parts of a game are created and explain how these processes occur across multiple countries. Students compare distribution methods across regions and evaluate how online platforms enable games to reach global audiences.	3.5.9-12.FF Evaluate how technology enhances opportunities for new products and services through globalization.