

Course: *Video Game Design*
Unit #1: *Introduction to Video Game Design*

Year of Implementation: 2023-2024

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Stage One - Desired Results

Link(s) to New Jersey Student Learning Standards for this course:

<https://www.state.nj.us/education/cccs/2020/>

■ Unit Standards:

○ Content Standards

- 1.2.8.Cr1a: *Generate a variety of ideas, goals and solutions for media artworks using creative processes such as sketching, brainstorming, improvising, and prototyping with increased proficiency, divergent thinking, and opportunity for student choice.*
- 1.2.8.Cr1b: *Organize and design artistic ideas for media arts productions.*
- 1.2.8.Pr4a: *Experiment with and integrate multiple forms, approaches and content to coordinate, produce and implement media artworks that convey purpose and meaning (e.g., narratives, video games, interdisciplinary projects, multimedia theater).*
- 1.2.8.Pr5a: *Develop and demonstrate a variety of artistic, design, technical, and soft skills (e.g., self initiative, problem solving, collaborative communication) through performing various roles in producing media artworks.*
- 1.2.8.Pr5b: *Develop and demonstrate creativity and adaptability, through processes such as testing constraints and divergent solutions, within and through media arts productions.*

○ 21st Century Life & Career Standards

- All curriculum writers/revisionists need to include standards that apply to “Career Readiness, Life Literacies, and Key Skills”. This should include a brief description of the standard and the standard number. Document only those standards and practices that apply to each unit. Use the following link to assist you [see pages of 31-36; 41-42; 53-56 for specific standard #'s and strands]
<https://www.state.nj.us/education/cccs/2020/2020%20NJSLs-CLKS.pdf>
- 9.2.12.CAP.2: *Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.*
- 9.2.12.CAP.3: *Investigate how continuing education contributes to one's career and personal growth.*
- 9.4.2.IML.2: *Represent data in a visual format to tell a story about the data*

- *9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process*
 - *9.4.2.Cl.2: Demonstrate originality and inventiveness in work*
 - *9.4.2.CT.3: Use a variety of types of thinking to solve problems*
 - *9.4.12.Cl.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas*
- **NJ Statutes:** NJ State law mandates the inclusion of the following topics in lesson design and instruction as aligned to elementary and secondary curriculum.

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35 A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A. 18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

Diversity and Inclusion (N.J.S.A. 18A:35-4.36a) A board of education shall incorporate instruction on diversity and inclusion in an appropriate place in the curriculum of students in grades kindergarten through 12 as part of the district's implementation of the New Jersey Student Learning Standards.

Asian American and Pacific Islanders (AAPI) P.L.2021, c.410 Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLs) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416)

For additional information, see

NJ Amistad Curriculum: <http://www.njamistadcurriculum.net/>

Diversity and Inclusion: <https://www.nj.gov/education/standards/dei/index.shtml>

- (Sample Activities/ Lessons): <https://www.nj.gov/education/standards/dei/samples/index.shtml>

Asian American and Pacific Islanders:

- [Asian American and Pacific Islander Heritage and History in the U.S.](#)

A Teacher's Guide from EDSITEment offering a collection of lessons and resources for K-12 social studies, literature and arts classrooms that center around the experiences, achievements and perspectives of Asian Americans and Pacific Islanders across U.S. history.

Transfer Goal: *Students will be able to independently use their learning to research and understand how problems and goals of a current industry impact the future, creativity, and communication of the industry.*

As aligned with LRHSD Long Term Learning Goal(s): <https://www.lrhdsd.org/Page/6163>

1. utilize and integrate essential communication and technical skills significant to 21st century life, work, and community
2. evaluate careers using critical thinking and problem-solving skills to respond to changing societal and economic conditions
3. apply information technology to achieve an organization's business goals
4. create authentic learning experiences to successfully transfer knowledge into real-world experiences preparing them for life and career
5. use technology to extend creativity and/or improve problem-solving ability

Enduring Understandings

Students will understand that. . .

EU 1

Essential Questions

EU 1

- What is game design?

- game design is a large field, drawing from the fields of computer science/programming, creative writing, and graphic design
- using a platform to create games is beneficial

EU 2

- gaming has changed over time and has evolved into a billion dollar industry.
- there are certain elements that make a game “a game”.

EU 3

- character creation is an important part of the player’s experience.
- The gameplay is a set of instructions which is the meat of the design.

- What is computer programming and how does it play a role in game development?

EU 2

- How has the design of games changed over the years?
- What factors contributed to the evolution of video games?
- What makes a “great game”?

EU 3

- What makes a good game character?
- How does visual character development differ from other forms of character development in games?
- Does the story of the game matter?
- Why is the experience of playing the game so important?
- How should game rules be structured?

Knowledge

Students will know . . .

EU 1

- game design involves the conceptual aspect of game creation and game development involves the technical aspect. (9.4.5.CT.1)
- gaming basics and their meanings. (9.4.5.CT.1)

EU 2

- gaming history and its impact globally. (9.4.2.CT.3)
- what elements are important to a successful game. (1.2.8.Pr5a)

EU 3

Skills

Students will be able to . . .

EU 1

- examine the impact of gaming on your life. (9.4.5.CT.1)
- define a game. (9.4.5.CT.1)
- list Common Game Elements. (9.4.5.CT.1)

EU 2

- assess the gaming industry and its evolution over time. (9.4.2.CT.3)
- critique games and distinguish the differences between good and bad games. (1.2.8.Pr5a)

EU 3

- critique existing games for character development.

- the importance of character development in a game. (1.2.8.Cr1b)
- how rules impact game play. (1.2.8.Pr5b)

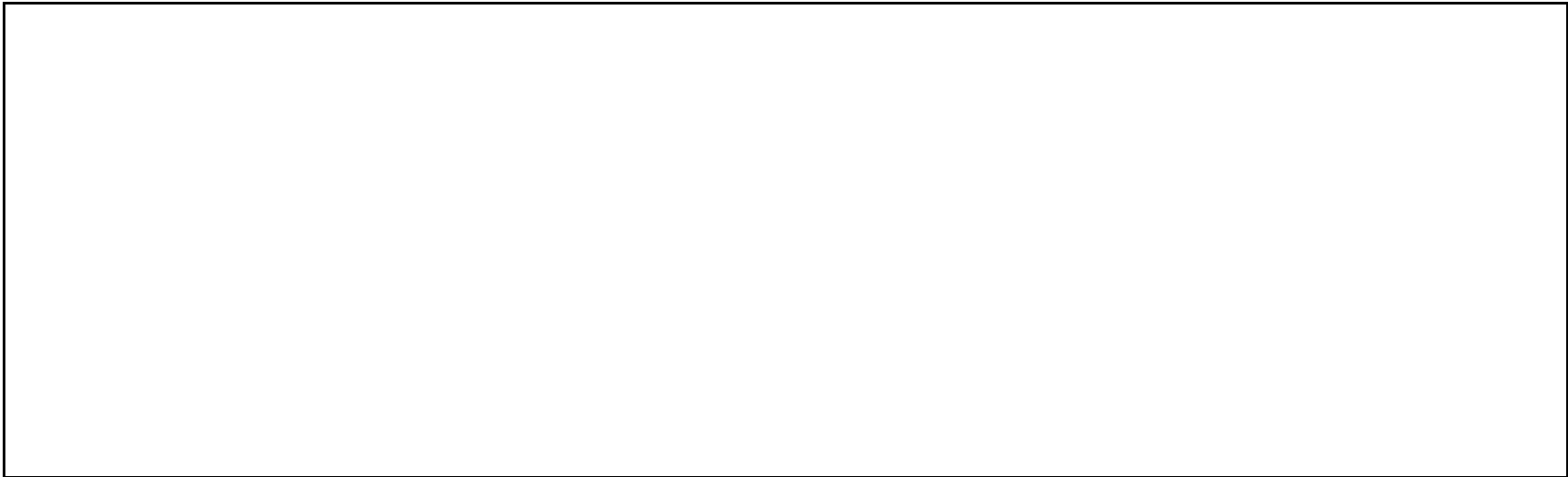
- (1.2.8.Cr1b)
- critique existing games for game play and rules. (1.2.8.Pr5b)

Stage Two - Assessment

Stage Three - Instruction

Learning Plan: Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections: Each learning activity listed must be accompanied by a learning goal of A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer. {place A, M and/or T along with the applicable EU number in parentheses after each statement} All knowledge and skills must be addressed in this section with a corresponding lesson/activity which teaches each concept. The following color codes are used to notate activities that correspond with interdisciplinary connections and 21st Century Life & Career Connections (which involves Technology Literacy):
Red = Interdisciplinary Connection; Purple = 21st Century Life & Career Connection

- Explore the aspects of the video game business (M, EU1)
- Define various platforms for creating video games (A, EU1)
- Compare and contrast game characters (T, EU3)
- Identify common game genres (A, EU2)
- Play a game and evaluate the rules of the game (A, M, T, EU2)
- Teacher observations (M, T, EU2)
- Defining vocabulary terms (A, EU2)
- Teacher guided lessons (A, EU1 & EU2)
- Self-assess completed projects (T, EU2)
- Problem solving and troubleshooting (T, M, EU2)



Pacing Guide

Unit #	Title of Unit	Approximate # of teaching days
1	<i>Introduction to Video Game Design</i>	<i>20 Days</i>
2	Video Game Development	50 days
3	Careers and Marketing in Game Design	20 days
4		

Instructional Materials

- Computer lab for students
 - Microsoft Surfaces or other laptop with the ability to utilize a drawing pen, keyboard and large screen hardwired into network
 - If not possible- Students will need a powerful desktop to accommodate the software
 - Solid state drives (SSD) are a possible solution for the first year the course runs.
 - New computers are recommended.
 - If desktop computers- drawing tablets needed
 - Software to be downloaded:
 - Still being determined
- Teacher Laptop
 - Provided by district
 - Teachers for this course will need a laptop to be able to create lesson and grade assignments for this course.
 - This cannot currently be done with district-provided, teacher chromebooks.
- Smart TV/Board
 - Lenape Business Education classes currently have one.
- Colored Printers
 - Students would be able to print out character and game designs to display in the classroom and potentially at the schoolwide Art Show.

Accommodations

Special Education: The curriculum will be modified as per the Individualized Education Plan (IEP). Students will be accommodated based on specific accommodations listed in the IEP.

Students with 504 Plans: Students will be accommodated based on specific accommodations listed in the 504 Plan.

English Language Learners: Students will be accommodated based on individual need and in consultation with the ELL teacher.

Students at Risk of School Failure: Students will be accommodated based on individual need and provided various structural supports through their school.

Gifted and Talented Students: Students will be challenged to enhance their knowledge and skills through acceleration and additional independent research on the subject matter.