POINTFUL EDUCATION

The History of Gaming and Esports

Syllabus

» Course Overview

In this course, students will learn about the technologies and design principles that have been the foundation the development of video game technology over the last 50 years. Students will examine and discuss the impact of video games on culture and the economy. Students will learn about the current gaming and e-sports landscape, including strategies and techniques of top teams and individuals. This course will also discuss the risks and dangers of video games and understand how to set appropriate time and content parameters. Finally, the course will identify career paths and opportunities for those who are passionate about gaming.

» Course Outline by Module

Module 1	Atari and the Introduction to Video Games	**Module 6**	Wii, Kinect, and Active Gaming
Module 2	Nintendo and Game Boy	**Module 7**	Mobile Games
Module 3	Super Nintendo, Sega, and Computer Games	**Module 8**	Augmented and Virtual Reality Gaming
Module 4	PlayStation	**Module 9**	History and Current State of E-sports
Module 5	Xbox	**Module 10**	Contemporary Issues in E-sports

» Module Overview and Learning Objectives

Module 1. Atari and the Introduction to Video Games

Have you ever asked your parents or grandparents about video games that they played? They might mention to you iconic games like Pong, Space Invaders, or Pacman. During this module, students will learn about the development of the first video games and systems. They will gain an understanding of how they were created and developed. From there, the transition from arcade style games to being able to play games at home will be explained. Students will learn about the early successes and failures of the first video games.

***Learning Objectives*:** In this module, students will:

- Define keywords related to the Atari
- Describe how the level of technology available at the time impacted the development of the Atari game system
- Examine the gameplay features of key Atari games like Pong, Space Invaders, PacMan, and E.T.
- Discuss the cultural impact of Atari
- Identify the arcade as a precursor to social gaming
- Describe how the concept of a high score increased game engagement and appeal

Module 2. Nintendo and Game Boy

In 1985, Mario became everyone's favorite super hero. He could jump 4 times his height and break bricks with his head. During this module, students will learn about Nintendo, the first real breakthrough that made video games a commonplace in your home. From here, they will discover the additional creation from Nintendo, the Game Boy, which allowed you to take your video games where ever you went. They will be able to identify the impact that the Game Boy has had on the future of mobile gaming. Students will also learn about intellectual property and copyrights.

***Learning Objectives*:** In this module, students will:

- Define the key technologies that Nintendo used to create their original NES system and Game Boy
- Describe the unique gameplay features and Genres that were pioneered by key NES games like Super Mario Brothers, Zelda, Final Fantasy, and Tecmo Super Bowl
- Identify the impact of the Game Boy on the future of mobile gaming
- Examine the intellectual property and copyright battles regarding the game of Tetris
- Discuss the lasting cultural impact of Mario Brothers
- Identify career opportunities as a video game designer and educational paths to enter those careers

Module 3. Super Nintendo, Sega, and Computer Games

Through the evolution of gaming, different technologies were integrated with each new system. Students will learn about the key technologies used in the Super NES and Sega, along with the rivalry between the two companies. Students will be able to identify the various game genres of that era (racing, RPG, sports, and action). Finally, they will then learn about computer-based games and how these compared to console-based games.

***Learning Objectives*:** In this module, students will:

- Define the key technologies used in the Super NES and Sega systems and how the technology enabled new features in gameplay
- Identify various game genres that were furthered in the era of Super Nintendo (racing, RPG, sports, action) and define the key characteristics of these genres
- Discuss the rivalry between Nintendo and Sega
- Describe early computer-based games and how these compared to console-based games
- Identify career opportunities as video game tester and educational paths to enter those careers

Module 4. PlayStation

The style of gaming has changed over time from being strictly 2D to 3D. With rapidly improving technology to support them, Sony created a new generation of consoles with the PlayStation, with games that allow you to go every direction, not just the forward/backwards, up/down that was previously available. This opened a whole new world of possibilities with first-person shooter games such as Halo, as well as groundbreaking RPGs like Final Fantasy VII. In this module, students will learn about the technologies that made these games possible. They will examine the business decisions that Sony made to enter the video game market and compete with Nintendo's N64. They will also explore the reasons behind the creation of ESRB ratings and their impact on video games.

***Learning Objectives*:** In this module, students will:

- Define the key technologies used in the PlayStation and Nintendo N64 systems and how the technology enabled new features in gameplay
- Evaluate the business decisions for Sony to enter the video game market
- Describe the introduction and development of first-person shooter games
- Examine the impact of ESRB ratings on the video game industry and compare the ESRB with other global rating systems
- Identify career opportunities as a video game writer or artist and educational paths to enter those careers

Module 5. Xbox

After seeing the tremendous success of Sony and Nintendo in the video game console market, Microsoft, the giant software company behind Windows decided to get in on the action. In 2001 Microsoft released its first console, the Xbox, which was designed to compete head-to-head with Sony for the hearts and wallets of gamers. This module will examine the contributions and developments of the Xbox through the history of gaming. Students will evaluate the emergence of network gaming. They will evaluate the business model of using a console and cartridges. Finally, students will explore career opportunities in video game programming.

***Learning Objectives*:** In this module, students will:

- Describe the developments in technology and gameplay of successive generations of Xbox consoles
- Discuss the importance of networked gaming and how services like Xbox Live changed the gaming experience
- Evaluate the business model of console and cartridge (network effects, razor/razorblade, pricing, etc.)
- Examine the rivalry between Sony and Microsoft
- Identify career opportunities as a video game programmer and educational paths to enter those careers

Module 6. Wii, Kinect, and Active Gaming

When you think of your 'average gamer' what comes to mind? Someone sitting on their couch eating cheese puffs and drinking energy drinks? While this is a largely misplaced stereotype, video gaming for many decades was a sedentary activity, except for maybe your thumbs. However, with the introduction of accessories, games, and even consoles, a new wave of active gaming was created. In this module, students will explore products such as the Nintendo Wii and Xbox Kinect, as well as titles designed to get players moving! Students will also discuss the importance of physical activity and the health risks of being a couch potato.

***Learning Objectives*:** In this module, students will:

- Compare and contrast the Nintendo Wii to the other existing consoles and gaming platforms at the time it was released
- Describe the Kinect and list reasons why it failed to live up to its initial expectations
- Examine key active gaming titles such as Dance Dance Revolution, Wii Sports, and others
- Evaluate the cultural impact of Guitar Hero
- Discuss the importance of physical activity and the health risks of an inactive lifestyle

Module 7. Mobile Games

While most of this course has been focused on console and computer games, a colossal shift took place in 2017. For the first time, smartphone games overtook console games in terms of global industry revenue! With the advent of smartphones like Blackberries, iPhones and Android devices, gaming platforms were now in the pockets, and hands, of billions of people worldwide. This module discusses the impact of mobile games over the last decade. Students will explore what makes a good mobile game and explore principles of gamification. Finally, students will be able to learn about careers in mobile gaming app development.

***Learning Objectives*:** In this module, students will:

- Evaluate the gameplay and genres of the most popular mobile games
- Describe the features and market positioning of the Nintendo Switch
- Define the characteristics of a good mobile game (short, addicting, achievement, badges)
- Explain the freemium business model and discuss in-game purchases
- Describe gamification and how game principles are used outside of gaming for motivation and engagement
- Identify potential career opportunities within game app development and educational paths to enter those careers

Module 8. Augmented and Virtual Reality Gaming

Over the decades, many noble attempts were made to bring virtual reality to gaming, but the technology and quality user experience were never there. In 2016, with the introduction of the VR gaming systems Oculus Rift, HTC Vive, and Playstation VR, a new generation of gaming possibilities was born. No longer will players be separated by a screen but can be totally immersed in a new environment. In this module, students will be able to evaluate both virtual and augmented reality gaming systems. The module will also discuss the risks and dangers of this new gaming medium.

***Learning Objectives*:** In this module, students will:

- Define key terms related to AR/VR in gaming
- Describe the historical attempts at bringing virtual reality to gaming
- Evaluate the platforms, features, and genres of AR gaming
- Evaluate the platforms, features, and genres of VR gaming
- Compare the pros and cons of AR/VR gaming to traditional gaming
- Identify potential career opportunities within AR/VR game development and educational paths to enter those careers

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Module 9. History and Current State of E-sports

From humble beginnings in 1980 with Atari's National Space Invaders Championship (which drew 10,000 contestants) to today's global E-sports tournaments which draw thousands of spectators and millions of views online, eSports has become a global phenomenon. This module takes students through the origin and early history of video game tournaments and describes how they grew in participation numbers as interest skyrocketed, and technology made it possible to play and watch on a world-wide scale. Students will learn about the current landscape of E-sports. While it may not be possible for us all to make a living as a world-class gamer or you-tuber, there are many opportunities to career paths in E-sports for those who are passionate and hard-working.

***Learning Objectives*:** In this module, students will:

- Describe the origin and key historical development of e-sports
- Evaluate the current scope and size of the e-sports industry
- Identify potential career opportunities within E-sports and skills required to work in the E-sports industry
- Describe participants in the E-sports ecosystem
- Examine factors that make successful E-sport games

Module 10. Contemporary Issues in E-sports

This module takes a closer look at some of the interesting and, in some cases, most controversial topics in E-sports today. Students will learn about what it takes to become a successful E-sports athlete. This includes not only dedication in terms of hours dedicated to practice, but also mind-sets and behaviors that allow the best players to succeed. The module also describes the most prominent current E-sport titles. Finally, students will have the chance to evaluate and discuss issues around the legitimacy of E-sports, its community, and gender balance.

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***Learning Objectives*:** In this module, students will:

- Describe E-sports and compare what makes them different from typical video games
- Describe major e-sports titles, genres and gameplay features
- Define skills required to succeed as an E-sports athlete
- Identify high school and college programs and scholarships available within E-sports
- Discuss whether E-sports are “real sports” or not and if should they be recognized as Olympic games
- Evaluate the culture and community within E-sports, including toxicity and gender balance