



Course Syllabus

Game Design and Simulation 2026

Instructor Information

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Course Description

Students in this course will learn the video game design process by reviewing concepts from 2D game design and introducing the concepts, syntax and tools of 3D game design with Unreal Engine and/or Unity.

This course will cover 2D/3D game design, the creative process of developing a video game storyline, the promotional aspects of marketing video games and web development for video game promotion.

1st Year (Intro to Game Design)

The Florida CAPE list Industry Certification related to this course is the:
Knowledge Pillars WORDPRESS CERTIFICATION

2nd Year (Game & Sim 1)

The Florida CAPE list Industry Certification related to this class is the:
**Unreal Engine 3D Fundamentals Certification and/or
Unity Certified Associate: Artist**

3rd Year (Game & Sim 2)

The Florida CAPE list Industry Certification related to this class is the:

Unreal Engine 3D Fundamentals Certification

Unity Certified Associate: Artist

Unity Certified Associate: VR Developer

4th Year (Game & Sim 3/ CAPSTONE)

The Florida CAPE list Industry Certification related to this class is the:

Unreal Engine 3D Fundamentals Certification

Unity Certified Associate: ARTIST

Unity Certified Associate: VR Developer

Unity Certified Associate: Programmer

This course is designed as a preparation course for POST-SECONDARY/COLLEGE or introduction to workforce pathways. Students attending this course will be expected to behave in a professional manner and will be treated as such.

Course Objectives

The objectives for this course are to:

- Explain the key elements that make up a modern video game.
- Define basic terminology used in the process of game design and production.
- Examine different job functions and possibilities in the game industry.
- Demonstrate creative idea generation methodologies.
- Review the iterative process used in creating games.
- Develop methods of evaluation, analysis of concepts, design solutions, and project execution, through peer and instructor critiques and interactions.
- Explore web site creation for game promotional purposes.

Student Outcomes

Students will:

- Understand the different skillsets needed to create a video game.
- Become familiar with the basic game design and development process.
- Understand foundational concepts used in creating and designing games.
- Develop a game idea from conception to documentation.
- Write a basic game design document
- Demonstrate the incorporation of the iterative process in development of game ideas.
- Evaluate, analysis, and critique a variety of games.
- Understand the requisites of website design.

Required Supplies

Students will need:

- A USB drives (16 gigs)
- Pencils, pens, and paper for notes, sketches, and idea generation

Other Applicable Learning Resources

Other applicable learning resources for this course include:

- Reference books on reserve in the library
- Published relevant journal articles that can be accessed in the library or online.
- Handouts given in class.
- Videos that can be found within the course in Canvas or online.
- Presentation slides that can be found within the course in Blackboard.

Learning Activities

Documents outlining learning activities, in detail, are available on the course website in Canvas. The learning activities that you will encounter in this course include:

- Lectures
- Research
- Exercises – which are short practical projects completed in the classroom to enhance learning of the lecture and/or reading material. Some of these will be group projects.
- Projects - students will be give a game design problem and will use what they have learned to develop solutions. Projects are a chance to demonstrate what you have learned and the skills you have developed.
- Playing and testing video games.
- Brainstorming / Development Sessions –Through these methods, students are given the opportunity to present and articulate their ideas and concepts for the given problem/project. Students then receive feedback from the instructor and other students on the formal and conceptual validity of their solutions. Students will modify their projects based on these sessions. Specific guidelines will be given at the time of these sessions. All students are expected to participate actively in sessions.
- Objective quizzes about the lectures/readings
- Discussions – in-class and/or on the discussion board. As a student, it is important in the development of professional job skills to be able to discuss your own, and other student's, work. Students will be required to actively participate in discussions. Discussion guidelines will always be given.

Grading

Grading Breakdown

<i>Letter Grade</i>	<i>Percentage</i>	
PROJECTS	50	
ASSIGNMENTS	30	
PROFESSIONALISM	10	
9 WEEKS EXAM	10	

Evaluation

- Classroom participation, discussions, exercises, player feedback, and projects will be used to evaluate student performance. Students will: discuss ideas; give feedback; and playtest their work, as well as those of classmates, throughout the term. Doing this is very important and offers an exchange of information between both the creators of the work and the players.

- Each student is advised to save computer work on a USB drive identified with first and last name and to a folder with his/her name in the *Student Folder* on the classroom computer they are using. It is the student's responsibility to back-up their work to protect it from computer crashes and deleted or corrupted files.

Late Assignments

- If you know in advance that you will miss a class when an assignment is due, you should turn it in ahead of time to receive full credit.
- A **late exercise** will be accepted on a **CASE by CASE** basis. This means late work will not be guaranteed to be accepted. With over 200 students, I cannot maintain the ability to guarantee the acceptance of late work to be graded by the end of the grading period.
- Late work acceptance must have **written proof** signed by the instructor. It is the student's responsibility to obtain written acceptance from the instructor. Late work may be rejected without written proof of acceptance.
- If you have accessibilities accommodations for extended time on an in-class exercise you must bring me your official accommodation form to receive that extra time. This can be done in person. Or you can have the accessibilities office email me your form. Extended time for accessibilities accommodations only applies to in-class exercises. It does not apply to textbook lessons or projects. Extended time means that you will receive one extra hour without any penalty. After this the late assignments policy will kick in.

Alternate Grading

- Students may receive grading in place of traditional assignments by completing **TEACHER APPROVED** competition projects and/or esports competitions. This grading is at the discretion of the instructor and must be pre-approved.

Course Policies

Learning is a process not a product. To enhance your learning process students are expected to follow certain guidelines of behavior in this course.

Work Ethic

- Students are expected to work in class each session and to invest efforts outside of regularly scheduled class time in order to produce acceptable results.
- Students are asked to work quietly during class studio time. Conversations are distracting and break the concentration needed to produce quality work.
- Always come to class prepared to work on projects, with materials and needed supplies.

"On occasion I may show a video clip to the class to demonstrate or model concepts pertinent to our course objectives and benchmarks. I have previewed these video clips and they are age and grade level appropriate. If you have any questions or concerns regarding these clips please email me to set up a parent teacher conference."

Student Conduct Policy

This course is "rated G."

This means that any word, comment, image, sound, or video that wouldn't be allowed in a Rated G film will NOT be tolerated in this class, This policy therefore prohibits ALL profanity and ALL

derogatory comments in regards to any person's race, religion, gender, age, color, creed, size, nationality, ethnicity, sexual orientation, socio-economic status, political views, academic status or performance.

Additionally, any lewd or violent content (words, images and all other media) is also not tolerated. Again, if it's something that can't be seen in a rated-G cartoon for young children, it isn't tolerated in this class.

Any such profanity or aforementioned comment will be documented and forwarded to the Academic Dean, as well as resulting in the loss of all Participation points for this course. This will cause the offending student's final grade to drop by at least one letter grade.

Students are expected to behave professionally and courteously in all interactions with the instructor, clients, and other students. Students behaving in a way that is not courteous and professional will be removed from class and will be reported to the Academic Dean.

Disruption-free Learning Environment

Discussion and expression of all views relevant to the subject matter are recognized as necessary to the educational process, but students have the right to a classroom free from disruptions that interfere with learning. The instructor sets the standard of acceptable behavior in the classroom. In the interest of preserving the rights of others, a student may be dismissed from a class for unacceptable behavior.

Internet /Cell Phone Technology Use Policy:

As a student at Weeki Wachee High School, you will be given access to wireless Internet. Wireless Internet privileges are to be used for academic purposes only while in the classroom setting.

Due to FLORIDA HOUSE BILL 1105

**** CELL PHONE USE will not be allowed. Phones and cellular devices must be put away in book bags or REMAIN out of sight BEFORE the bell to begin class.**

Classroom Content

This class will feature instruction that MAY include these topics in relation to gaming, game design and current events:

- Social topics
- Mental health issues
- Current events
- Discussions related to political ideologies in gaming.
- Disney/Movie content for discussion
- **Discussion** based on games at or above a G rating (games above ESRB:Teen rating will not be played in class)

****If at any time, you feel uncomfortable with a topic being addressed, you as the student have the right to request an alternate assignment to be graded.**

Photography Waiver

By participating in class you are acknowledging that your photo may be taken for classroom, district and/or promotional purposes. Your acknowledgement of this syllabus agrees and accepts this circumstance.

Works Created Waiver

We reserve the right to maintain a copy/demo of ANY work created in or from the resources of the classroom. These copies will be used as promotional pieces of examples of classroom work or educational pieces for the classroom to display. You do have the ability to monetize your classroom-created work as long as it does not infringe on the above statement.

All works submitted to competitions are bound to the guidelines of their respected competitions and can override the statement above.

Generative Artificial Intelligence

While AI is not prohibited, all works including projects, games, papers or any other assignments must have notification that generative artificial intelligence has been utilized.

****Classroom offenses****

These offenses can lead to expulsion from the Game Design program and will result in notification to guidance and administrators. These offenses do not necessarily warrant a warning before consequences.

Harassment:

Physical, written or verbal harassment of students creating an unsafe work environment. Hate speech or sexuality speech.

Hygiene:

Repeated hygiene offenses such as gum/food in places it does not belong, removing base layer(s) of clothing, purposeful emitting of odors etc.

Respect for school devices:

Throwing or purposefully breaking controllers/gaming devices, removing keycaps, cutting/unplugging wires, stealing etc.