Intro to Level Design

GAM 341

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Office Hours: Tue 12:30pm – 5:00pm or by email appointment

Office: CDM 849

Website: piazza

Classroom: Daley 2112

Description:

Level design is the art of creating believable environments, stages, and missions for videogames. This course explores topics including architecture, storytelling, pacing, and puzzles. Using Unreal Engine 4 (UE4), students will investigate technical design issues including the construction, texturing, lighting, and scripting of modern game levels. The roles, duties and challenges of the level designer will also be discussed. Specifically, we will be focusing our attention on how games use space, audio/visual cues, flow and pacing to create activities for players. We'll be using UE4 and its Blueprint visual scripting system to practice basic level design techniques, such as blockouts, scripted events (switches and triggers), the writing of accounting narratives and walkthroughs, and the creation of maps. No prior art or programming experience is required. However, we will discuss programming basics in order to navigate Blueprint's framework. It is expected that you have taken GAM 245 and thus come to the class with basic game design knowledge. By the end of this course students should be comfortable working in 3D environments and designing interesting spaces given a set of constraints and mechanics. Students will also be comfortable with navigating Unreal 3D.

Prerequisites:

PREREQUISITE(S): GAM 245

Goals:

- Students will apply previously acquired game design principles and methods in the creation of videogame levels/environments.

- Students will develop a foundational literacy and confidence in basic level design techniques, including blockouts, player interactions and level events, and the creation of walkthroughs and maps.
- Students will develop fluency in building levels in a 3D environment.
- Students will develop literacy with principles from architecture, spatial storytelling, and environment design.
- Students will develop basics on Unreal Engine and blueprint, in order to prototype behaviors to complement their level designs.

Grading
- 40% Homework Assignments
  - 4 – 6 Assignments
- 60% 2 Projects
  - 2 Projects:
    - Portal
    - Superhot
- No Final Exam

How projects and homework are graded according to two criteria:
1. Does it run and meet all of the requirements? This is worth 80% of the grade
2. How creative or impressive is the solution? This is worth 20% of the grade.

If a student turns in a project that runs and meets all the requirements, then she earns 80% or a B for the project. If the student has also solved the project assignment in a creative or impressive way, meaning that she did something unique and innovative in her solution, then she can earn up to another 20%.

Grading Late Projects
Every day a student's project is late will remove 10% points from that project's grade. For example, if a student completes a project of 97% (or A level) quality, but hand it in 12 hours late, she will earn 87% or a B for that project. If she were to hand it in 36 hours late, then she would earn a 77% or a C for that project, and so on.

ATTENDANCE AND TARDINESS
If you miss class, you're responsible for catching up on missed material by referring to Piazza and asking classmates.

Recommended Textbooks and printed resources:
- Level Design: Concept, Theory, and Practice by Rudolf Kremers
- An Architectural Approach to Level Design by Christopher W. Totten

Software:
- Unreal Engine 4
- D2L for assignment submission
- Piazza: forum for discussion

Piazza Discussion forum:
- Statistics show: students who participate more and help other students do better!
    - The correlation is ridiculous!
        - Poor understanding / poor participation.
        - Great understanding / Great participation
- As you master the material, help others learn!
    - Want to be a Master programmer so master it!
- Everyone is *expected* and encouraged to participate on the Piazza discussion forum. All class-related discussion here this term.

- The quicker you begin asking questions on Piazza (rather than via emails), the quicker you'll benefit from the collective knowledge of your classmates and instructors. I encourage you to ask questions when you're struggling to understand a concept.
- All correspondence that is not personal in nature should be vectored through Piazza

- Sensitive material, use Piazza private note, not email.

- Keep the forum professional and positive, help each other out.
    - Karma really pays off here.
    - Help each other whenever you can.
        - There will be a section where you'll need help (trust me).

NOTE: Do *NOT* post until you have watched the entire lecture *FIRST* (in class or online)
This will prevent frustration on all sides (members asking or answering questions)

Collaborating together on programming assignments
- You are encourage to work together
    - Use the Piazza forums heavy
    - Even share your material with others in the common directory
- Everyone is 100% responsible for the work they do.
    - If you get help with a section of code,
    - Refactor the code
        - Comment and understand that material
        - Transform the code to *make it yours*
    - Be able to answer *any* question regarding the code you commit
- If you gain significant support / help from another student
    - Fully disclose the support / help you had in a Readme.txt file submitted with your assignments.
        - Disclosing the help, is *not permission* for copying the code.

- - - Only there to clarify and acknowledge help you were given from a fellow student.
  - If you are stuck and find yourself even tempted to plagiarize
    - Ask for help !!!!
      - Use on Piazza,
      - Visit during offices hours, make an appointment
- ***Don't ever compromise your integrity!***
- NOTE!
  - You must disclose all help or sources you used for your assignments
    - Text file in submission folder
  - If you submit an assignment/project you copied as your own, you will receive an automatic F in the class and will put up for Academic Integrity Violation
  - I will run MOSS on your assignments
    - Measure of Software Similarity
    - It test for plagiarism in code

Course Policies

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

Online Course Evaluations

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at http://academicintegrity.depaul.edu/. If you have any questions be sure to consult with your professor.

Academic Policies

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at: cdm.depaul.edu/enrollment.

Students with Disabilities
Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential. To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in

the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: csd@depaul.edu.

Lewis Center 1420, 25 East Jackson Blvd. Phone number: (312)362-8002 Fax: (312)362-6544 TTY: (773)325.7296

Retroactive withdrawal

This policy exists to assist students for whom extenuating circumstances prevented them from meeting the withdrawal deadline. During their college career students may be allowed one medical/personal administrative withdrawal and one college office administrative withdrawal, each for one or more courses in a single term. Repeated requests will not be considered. Submitting an appeal for retroactive withdrawal does not guarantee approval. Information on enrollment, withdrawal, grading and incompletes can be found at: http://www.cdm.depaul.edu/Enrollment-Policies.aspx