

## **IGME-750 Game Engine Design and Development**

### **Project Idea**

**Due: Before Class, Monday, February 18, 2019**

### **OBJECTIVE**

You will define your idea for the class project, and provide a guideline for the milestones and for the final deliverable.

### **FROM CLASS**

As we discussed in class, the semester long project will be divided into two parts.

The first part consists of core deliverables. These are engine elements that I expect every team implements. In the rare case that a core deliverable does not match into a particular game genre or implementation, please substitute something that is reasonable and provide an explanation as to why.

The second part consists of additional responsibilities. Each team member is responsible for an additional responsibility. That does not mean they are necessarily the sole implementer, but the individual will be accountable for the responsibility of getting the feature implemented in the system. If there is an additional responsibility that is not on the list, please talk to me.

Core systems include:

- Game Loop
- Event Management
- "Render" (Using OpenGL, DirectX, Vulkan, OGRE, or whatever you feel is appropriate)
- Scene Graph (Geometry, Lighting, Camera)
- Camera Control
- Simple Animation
- Simple Physics
- File Representation/Loader
- Input/Interaction

Additional systems include:

- Audio Engine
- In World Editing
- Spatial Partitioning
- Advanced Physics/IK
- AI that is not A\*/path
- Scripting
- Networking
- Particle System

## **DELIVERABLES**

You will turn in a document that has the following parts:

Team Name – Come up with a good team name!

List of class personnel – The people in your class who are part of your team. Give me their name, and one or two sentences as to what that person's responsibility will be as part of the team.

Description of Engine – What do you want to achieve in your engine (in the service of implementing your game!) This can describe how the engine implements a particular game genre or how it deals with a particular problem your team finds interesting.

Description of the Game – A paragraph or two that describes the engine and experience you want to build.

Details on core systems – The team is responsible for the core. However, if you are going to assign responsibilities with the core features, I would want to know.

Details on additional system – Which features are you going to implement? Who is responsible for each additional system?

Milestone 1 (Due 3/29/2019) Deliverables – Explain to me what I can expect for the first milestone.

Milestone 2 (Due 4/19/2019) Deliverables – Explain to me what I can expect for the second milestone.