University of the Incarnate Word
School of Media & Design
3D Animation & Game Design

Organic Prop | Project Brief

Description
In this project, you will create a real-time production-ready 3D model of an organic prop using **Maya, ZBrush, Marmoset Toolbag 4, Substance Painter, Unreal Engine, and more**. The focus is on developing skills in the full pipeline of organic prop art for game development, enhanced by an Agile workflow that accommodates your unique scheduling needs.

Project Workflow and Structure
We will employ a Scrum/Agile structure adapted for academic use, incorporating Kanban with Microsoft Planner to manage and visualize tasks. You are responsible for bidding on time estimates based on your personal schedules and any anticipated impediments, using the pipeline steps as a guide.

Start Date: October 28
End Date: November 25
Sprint Review/Check-In: November 14

Each student will:
1. **Bid their time estimates** for each pipeline step based on capacity.
2. Track progress and update task statuses on **Microsoft Planner** as they move through the Kanban stages.

Pipeline Steps: Tasks needed to complete our Assets

Tasks	Description
PureRef Board	Collect high-quality references to support organic detailing in ZBrush.
Stub	Create a foundational proxy in Maya and Game Engine
Block-in	Establish the form and proportion of the model.
High Poly	Finalize the high poly sculpt in ZBrush.
Optimization	Finalized Topology and UV Layout
Texturing	PBR or Hand-Painted Textures Complete
Integration	Final Game-Ready Asset Lit and Rendered in Engine
Final Deliverables	**November 25th**

Submission:
All deliverables will be submitted under your class sections corresponding UIW3D Forums thread: www.forums.uiw3d.com
They will be due before the beginning of class on the listed due date. No late assignments are accepted.

Grading:
See the rubric/grading checklist for the final turn-in for this project. The specifics of each deliverable will be detailed on the forums. Grades will be adjusted based on accurately following the deliverable requirements outlined there.

Grading Checklist	Earned	Possible	Feedback
PureRef Board		5	
PureRef (Reference Board) The reference board should include high-quality and relevant images that are well-organized and annotated. The depth and variety of references should demonstrate a comprehensive understanding of the electronic device's design elements			
Stub		5	
Stub (Initial Model Stub) The initial model stub should establish the basic structure and form of the electronic device. The initial topology isn't a priority, but needs to provide boundariess and a solid foundation for further development			

Block-in	10

Block-in (Block-in Model)
The block-in model should accurately represent the overall shape and proportions of the electronic device. The topology should be clean, and basic detailing should be evident.

High Poly	20

High Poly (Final High Poly Model)
The final high poly model should be detailed and accurate, with clean and optimized topology built for subdivision. The model needs to effectively represent the selected electronic device.

Optimization	15

Optimization (Final Optimized Model)
The final optimized model should be low poly, with a focus on preserving detail while maintaining clean and efficient topology. No unnecessary edges, vertices, or faces.

UVs (Clean and Efficient UVs)
The UVs should be clean and efficiently laid out, with minimal distortion and optimal use of texture space. UV islands should be logically organized and scaled appropriately.

Texturing	15

Bakes (Clean Bakes)
The final bakes should be clean, with no artifacts or errors. Normal maps, ambient occlusion, and other baked maps should accurately represent the high-poly details.

Textures (Final Textures)
The final textures should be high-quality, demonstrating proficiency in PBR texturing techniques. Textures should be detailed, realistic, and enhance the overall appearance of the model.

Integration	10

Rendering (Final Rendered Images)
The final rendered images should be of high quality, with effective lighting and composition. The presentation should be professional, showcasing the model from multiple perspectives

Final Deliverables	20

Submission
Final game-ready and production ready source assets. Presentation and portfolio ready renders.

Total Points Earned	/100