CS148 Final Project Scope & Proposal

11/06/2026

Getting Started on Your Final Project/Scoping 101

With: Kwame Ocran

Can’t post process i.e. no Photoshop, no “Mr. GPT, edit this”

Cite your sources i.e. Youtube links, tutorials, AI, texture, models, scripts, etc

At least 1 UV mapped/textured object from scratch

Can’t use AI for any required feature or written documentation/proposals

TLDR: Project Guidelines

You have to make the main object in the scene yourself ***BY HAND*** & 50% of the objects in the scene must be made by you

Turn in a variant with no textures, and one from a different angle; will be ugly

At least 1 advanced rendering technique: fog, steam, depth of field, etc

You missed some points on homeworks and want to make them up

You want us to hype you up cause you're going to make something very cool!

You wanna do some cool things that aren't mentioned inthe project guidelines and you want to check that they're fine

"Why Should I Do The Proposal?"

You want to make sure you're hitting all the project reqs

You have the best idea in the world, but it looks like it might be a lot…

You're planning to do this very cool scene, but don't know where to get started

Example Proposal



For our final project my partner and I wanted to draw on themes of revival, renewal, and rebirth. Thus, we want to render a scene with mountains and cliffs in the background, forests and a lake in the middleground, and a rising sun on the horizon beating its way into the sky. In the centre of the image, a mythical creature (we're currently thinking a dragon, or even a phoenix of some sort), will be rising valiantly towards the heavens. We plan to use depth of field to focus the creature and maybe a little bit of motion blur, fog on the mountains, and a reflection of the creature and the sunrise in the lake. Then, we also want to mess with lighting to kind of create a "halo" around the sun and it's glow and have the parts of the image farthest from he sun be dark/darker. Lastly, if we do a dragon, we will also be creating the scales and skin texture of the dragon, or if we choose a phoenix we'll create the feathers and sharpness of the bird, in addition, to the creation of the main creature itself.

While we're excited to get started on the project, we're most worried about the creation of the main creature because this class focused mostly on rendering and not really sculpting and making. We also, would like some guidance on the colour gradients and ranges we should be using. How do we know how and what kind of light is "right" or too much/too little? In short, how do we know the render is good enough?

What we want from You?

- Idea of what you're trying to do
- Motivations for the scene
- Any questions you have!

Google

DEVIANT ART



Where to Get Ideas?



YouTube

Scope Tips

- Simplify objects in the background
  - Use slightly simpler textures, meshes, etc for things that aren't in the foreground to save you save and make your renders faster
- Limit the number of unique objects if they're complex
  - Looks great, but takes a lot of effort and will likely take time away from your texturing and advance rendering time. Try to stick to 2 big main objects, or 5 smaller objects
- Use shortcuts and tricks to make complicated effects easier
  - E.g. for glow, double the object and change the transparency, using texture nodes instead of modelling custom geometries, etc
- Use light fixtures as needed, but use color, shade, transparency to imitate light effects when possible
  - Saves a ton of compute and render time if lighting effects aren't central to your scene

Shortcut Example

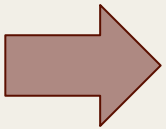




Simplifying Background Example



Water in the foreground

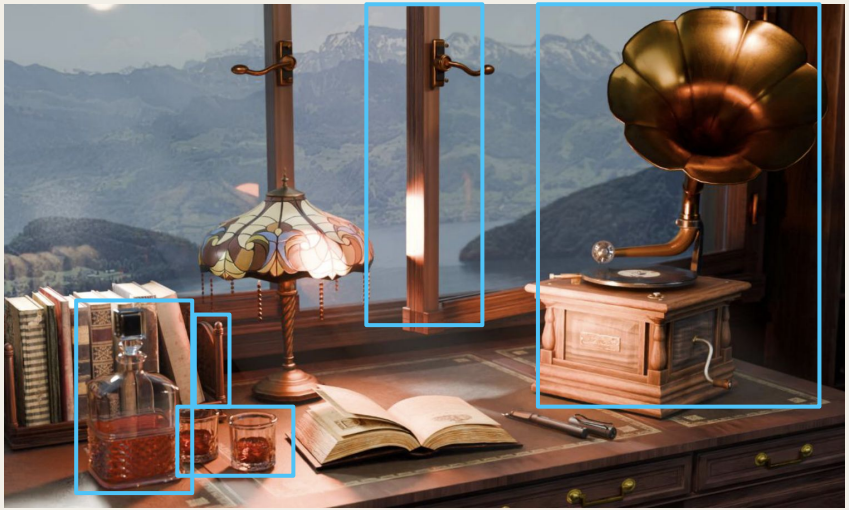




Water in the background

Limiting Unique Objects Example





Handmade everything in blue; imported everything else i.e. mountains, desk, books, lamp, pens

Imitating Lighting Example





Uses small spotlights effectively to only use light where needed (blue boxes + overhead scene lighting), and uses color to imitate light when possible i.e. windows

Should Do:

- AUTO SAVE! AUTO SAVE! AUTO SAVE!
  - BLENDER CRASHES ALL THE TIME! Save yourself having to redo work. Change your default autosave settings to be more frequent: change settings help page
- Split big parts of the project evenly
  - If your project has a complicated model and complex lighting, make sure that 1 person does the modeling and the other team member does the lighting
    - Saves time and saves the partnership
- Make sure you have enough storage, need at least 3 GB for this class
  - My final project file was ~400 MB, not including the additional files for imports, etc
  - The more complex your project, the bigger it will be and the more RAM and storage you need
- Share files between teammates by zipping, and sending over Google Drive/Dropbox
  - Can also append and/or link different Blender files together: append_and_link, doesn't always work so do trial

Should Do:

- Save at least 2 days before the deadline to fully render your final image. It'll crash and take a lot of time depending on your render, samples, computer RAM, and complexity of scene
- Try image planes + lighting sources instead of HDRI's for background
  - Usually not high def/quality, comes with weird lighting, scaled weirdly
- Get a mouse
- START NOW!
  - Everybody Repeat after me:

    "I will start early. I will start now, even if it's something small"

Start Early and Ask for Feedback!

- Iterate with us in OH! Ask friends, family, coworkers too for opinions!
- Most people can tell you whether an image looks “good” or “bad”!

Justin Jasper, Fall 2023 - Initial Version



Justin Jasper, Fall 2023 - Final Version



Avoid

- A lot of subdivisions
  - Unless you're doing a very scale -like texture (think lizard skin), you likely don't need that many subdivisions while modelling
- Complex meshes for rigid objects
  - If you're not modelling something very fluid (like a snake body, or a face), your mesh likely doesn't need to be super super high-poly
- High fidelity renders until you're almost done
  - Renders take a lot of time and RAM, will crash Blender, will crash your computer
- Applying textures to complex objects/bodies until you think it's almost done
  - It'll take forever to apply because of the number of triangles and interactions. Test out on simple object like a base cube first
- Rendering after very small changes

Useful Links:

Water: https://www.youtube.com/watch?v=o12Ee6DjZ-M

https://www.youtube.com/watch?v=0SJ-__0gK_k

Sculpting: https://www.youtube.com/watch?v=AsygBRaRnUA

https://www.youtube.com/watch?v=_Lc0hSoJTDc

Image Planes: https://www.youtube.com/watch?v=aicuwg7HJMk

Blender models: https://blendswap.com/, https://www.cgtrader.com/free-3d-models/blender

Questions?

CA Sections & Final Project OH

- **Week 7 Fri (11/6) @ 5 - 6 PM: Final Project Scope** by Kwame
- **Week 8 Fri (11/13) @ 10:30 - 11:30 AM: Geometry Demo** by Renee
- **Week 9 Thurs (11/19) @ 10:30 - 11:30 AM: Texturing Demo** by Renee
- **Week 10 Fri (12/4) @ 10 - 11 AM: Lighting & Camera Demo** by Merritt

- **Jinhyo Final Project OH (Hybrid):** Sundays 3 - 6 PM @ Huang & Zoom