Project 2 Rubric, CS 351-1 Winter 2025

The purpose of this document is to provide condensed rubric for Project 2, separate from the description of the project requirements. This project is scored out of **100 points** and is worth **20%** of your final grade. Every requirement on this rubric must be met to receive full credit.

Points	Requirement	Scoring
10	Demo	You must attend the in-class demo day and submit written reviews on **at least** two other projects. If you are unable to attend in-class demo day due to illness, external event, or personal emergency, contact me so we can discuss an alternative to earn these 10 points
10	Writeup submission	The scoring for the writeup consists of 2 pieces: **5 points:** You must include your name, netid, project title, a list of the code files submitted with the project, and a written description of your project and what the user should expect to observe, including **at least** two images of the project -- a deduction may be applied if this overview is especially confusing or misleading. **5 points:** you must describe how the user can interact with this animation, including **at least** two images showing changes from interacting with the animation -- points may be deducted if your description is especially confusing or misleading.
5	On-screen instructions	Graded on clarity and ease-of-use. You may receive a deduction if a feature is not explained on the project main page, or if the instructions are especially difficult to understand.
20	Freely Moving Camera	Your camera should be a "perspective" camera (that is, further objects should be smaller). The scoring for your camera consists of 2 pieces: **10 points:** you must be able to rotate the camera up, down, left, and right **10 points:** you must be able to move the camera forward and backward *relative* to the direction the camera is facing
10	Distinct *rigid* 3D models	You must have at least **three** unique models with at least 6 (visually) distinct vertices each. Note that a particular *assembly* may consist of multiple models, so it is possible to meet this requirement with a single assembly. Note that this requirement means we have to be able to find the models in your scene; if they are always off-camera or too small to see, you may receive a deduction. Note that your terrain mesh does qualify as a model for this requirement
10	Animation	At least one model must be animated (either independently or through user interaction)

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10	Model Terrain Interaction	Your models and animation must interact with *randomized* terrain in some way. This could involve flying above this terrain, driving around this terrain, or standing on a platform on a peak of the terrain. Note that you can get the points here even if your terrain does not meet all requirements so long as the terrain can be moved/resized with some randomness without breaking your animation
20	Randomly generated terrain	You must have some kind of visible "terrain" in your scene (color and size are not graded so long as the terrain can be seen/found when moving the camera). The scoring for your terrain consists of 2 pieces: **10 points:** you must be able to regenerate terrain *without* reloading the page (such as with a button press) **10 points:** you must be able to specify at least one meaningful parameter when regenerate terrain. Possible parameters include (but are not limited to) terrain size and terrain "roughness"
5	Drivable Camera	You should implement a mode for your perspective camera that allows the user to "drive" along your terrain, following the contours of the terrain and rotating to always face at a (roughly) 90 degree angle to the current terrain block. You should be able to turn left and right, but rotation should always follow the current terrain block. **Reminder:** this requirement is only worth 5 points for a reason, make sure that you complete the rest of the project before putting serious work into this part of the project!

Extra Credit

We reserve the right to award up to 10 points in extra credit for especially interesting or cool animations. Additionally, obviously high-effort submissions may be "rounded up", so small deductions that would otherwise have been applied may be "given back".