# CSCI 3820 Final Project

Due Tuesday, May 3 at Midnight

The semester final project is to create a web-based, in-browser, graphical program that displays and extends the techniques you've learned this semester. This program should be animated or interactive, and should render in real time or close to it.

This project may be done on your own, or in a team of two people.

You are encouraged (but not required) to submit the finished project to the three.js featured projects page or to the chromeexperiments web page.

## Due dates

- Tuesday, April 5 (in class): Written proposal.
- Thursday, April 19: Beta version
- Tuesday, May 3 (midnight) : Final version.

## Directions

This is an open-ended project, and should extend beyond techniques we've used in class. Here are some directions you might go:

*Realism*: Ray-tracing. 3d anaglyph or VR. Caustics. Image based lighting. Lens flares. Fog. Depth-of-field. Motion blur.

*Interactivity*: Free motion. Picking and interaction with objects. Collision detection. Simulated physics. Audio.

*Modeling*: Animated models. Create your own models with Blender or SketchUp. Particle systems. Billboarding. Sprites.

*Data*: Streaming video. Google street view, Google earth. Scientific data.

## Technical Requirements

*Format*: The user interface should be discoverable: there should be help for keyboard commands. The project should run full screen in a browser window. Window resize should work. If loading is slow, provide a progress bar. Test your project on various browsers, including mobile - it is not required to work on all platforms, but any incompatibilies should be noted.

*Version control*: Create your project under a version control system, such as Git. Especially if you are working in a team, I suggest you create a master repository using GitHub. A public repo is fine for this project, or if you like, I can make a private one for you as part of our course page.

*Resources*: JavaScript libraries should be linked from stable CDN's on the internet or else included in your source directory directly. You may use images, models, libraries, and example code from the internet at will, with proper attribution.

## Concept Ideas

Here are a few concepts that would make interesting projects, but feel free to come up with your own:

- Fishbowl/aquarium
- Katamari Damacy
- Hedge maze
- Rollercoaster
- QBert
- Asteroids
- Pool table
- This is sand
- Museum room
- Dinner table
- A rainy day
- Soccer game
- Portal