Nov 5th: Submit a brief proposal through Quercus. In one paragraph detail the software that you will use, the types of stimuli that you will present and the responses that you will record. If you do not plan on making an experiment this year, please make an office hours appointment to discuss accommodations with one of the instructors.

I will be using Matlab. My experiment will be a working memory and attention experiment.

1. I will have a fixation point pop up in the middle of a grey screen
2. A 2 stimuli memory array will pop up in the periphery around the fixation point and disappear
3. Then a new fixation point will pop up in the same horizontal plane, indicating that the participant needs to make a saccade to the second fixation point
4. They will then need to click on one of the two remembered stimuli in the memory array. The fixation point will indicate which stimulus in the memory array they must approximate the location of and click on that location.

The above is one trial. I will repeat these steps 72 times, to create 72 trials (1 block). They will complete 40 blocks of 2880 trials. This is to ensure I can encode remembered representations of the stimuli using the Inverse Encoding Model.

I will be recording the location of the click for each trial, and I will also be recording EEG data and EOG data to get brain ERPs and eye movements. I will make sure to send triggers to the EEG recordings every time Fixation Point 1, 2, memory array, click and mouse movement occurs. I will be using BioSemi recordings and input them into the EEGLAB toolbox on matlab.

Template for Code (See attached code on GITHUB)

1. Set up both eye-tracking and eeg-recording
2. Set file path and place to save the datafiles
3. Create the task outlined above, and send triggers to the EEG BIOSEMI program for each of the following:
   1. Fixation point location and size
   2. Memory array
   3. Fixation point 2 location and size
   4. Move of mouse
   5. click
4. Create a debug mode so that participants can practice