

HW 4 due today

No class Apr 9, 13, 16

Quiz 2 Apr 20

Emailed to you at 10am that day

Post on blackboard by 10:20am (or 10:25am?)

Open book/open notes

Do **NOT** collaborate – no e-mail/
chat/etc to each other

Content same as HW4

Format pretty much same as Quiz 1

Office Hours this week:

Mon 12-1

Today:

Matlab:

fMRI–general linear model
correlation

Perception

audition

touch

vision

Example code:

```
size(neuroData2)
32  32  16  94
% lft-rt, frt-bk, dwn-up, time
%show: 5th slice from btm, t=20
slice=squeeze(neuroData2(:, :, 5, 20));
%show: max activity over time
```

```

maxInTime=max(neuroData2,[],4);
% activity over time in eyes:
voxTimeCrs=squeeze(neuroData2(10,3,5,:));
% activity over time in occip lobe:
voxTimeCrs2=squeeze(neuroData2(15,30,5,:));

% timesObjs2, timesNonsense2 -
% 0 if no obj/noise, 1 if obj/noise
figure;plot(timeObjs2);
% change axes to see 1's and 0's
axis([0 100 -0.5 1.5])
% Define vector with 1 whenever any
% picture is shown (obj or noise)
timeAnyStim=timesObjs2+timesNonsense2;

% see relation between pic-view and
% brain/eye response
corr(voxTimeCrs,timeAnyStim')
% high neg corr

corr(voxTimeCrs2,timeAnyStim')
% lower pos corr

% corr(vec1,vec2) - both vecs

```

```
%      should be nx1 vectors
% timeAnyStim - 1x94
% timeAnyStim' - 94x1 (transpose)
```