# Teaching philosophy and methods

My primary teaching goal is to encourage students to think and create like expert researchers.

Online publishing of seminar research

Cognitive Neuroscience of Decision Making
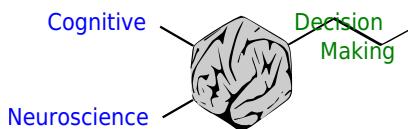
This course encourages students to read advanced scientific literature the same way that experienced researchers do: by making connections with knowledge they already have, and by doing literature reviews to understand unfamiliar concepts.

The readings stretch beyond typical undergraduate material. Students learn to respond to the advanced readings by writing down what they don't understand in order to make those things explicit, and therefore less daunting. Students submit questions to a group document that range from background questions ("What is the ventral striatum?"), to questions challenging studies' conclusions, to questions about studies' practical implications ("How does learning rate impact decision making? If you have a faster learning rate will you be a better decision maker?").

Students spend one day a week researching the submitted questions and documenting their answers. The answers, including bibliographic references, are compiled and documented online. Other students can then use these web pages as online resources for guiding their own learning and research.

Using neuroimaging methods to understand the relationships between cognitive skills

Neuroimaging meta-analysis assignment instructions

The 3D surface model cut away to reveal the location marked by the crosshairs in the viewing window.

Creating and analyzing data

Individual differences in color naming

Attentional saliency in images

original image

Itti-Koch saliency map

marked image

saliency map overlayed

most salient (95%ile) parts
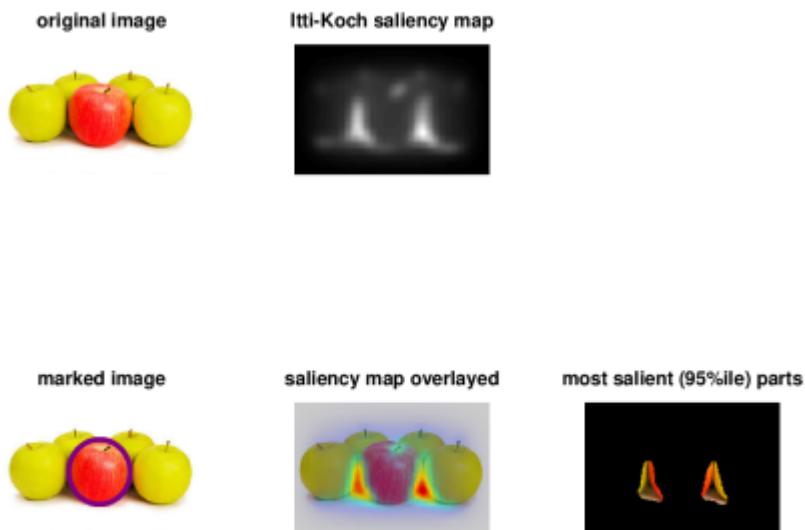
Video voting

[Video voting in class](#)

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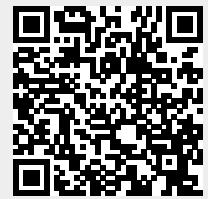
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