This course will examine the impact of expectation on language processing, with a focus on evidence from cognitive neuroscience measures. Linguistic input is subject to multiple deterministic and probabilistic constraints, and much recent behavioral and neuroscience research has argued that comprehenders use these constraints to generate predictions about this input before it arrives. This work challenges some of the basic assumptions underlying the standard interpretation of behavioral and neurophysiological data, i.e. notions such as 'stimulus-evoked response' or 'event-related potential'. However, this work has also generated controversy, in part due to disagreement about how 'prediction' is defined.

In surveying this literature, we will ask what a meaningful definition of prediction might consist of and what kind of data could constitute real evidence for prediction. We will consider how predictive processing might contribute to learning, how predictability might interact with short-term memory encoding and retrieval, and what kinds of language processing abnormalities would be expected for populations with deficits in prediction. We will also consider what kinds of neuroanatomical circuits might plausibly support prediction, and we will discuss how predictability paradigms can be used as a tool for investigating more general representational questions.

The reading list is subject to change according to group interest and as new findings emerge in this rapidly developing area of study.

**Course requirements**

This course does not have specific prerequisites, but the majority of the readings will come from the neuroscience and cognitive neuroscience literature and will examine questions relating to language processing. Methodological issues will play a part in the course discussion, but enrolled students without some background in these domains should be prepared to read carefully and learn quickly. If you have doubts, please contact the instructor.

Students enrolled in the course will read the papers assigned each week and will take turns presenting the papers to the group for discussion. At the end of the semester, students will turn in a final paper (10p+) that either proposes a study involving expectation in language processing or reviews an aspect of this literature in more depth than was touched on in class.

If you are enrolled, you must regularly attend class. Final papers turned in late will receive a significant penalty in grade, and will not be accepted after the end of the semester (i.e. no incompletes).