On Fridays throughout the semester, students meet in the lab. Each lab session is structured as follows: (i) each student completes a sample psycholinguistic experiment based on an influential study discussed in class that week; (ii) after completing the experiment, the student analyzes his/her own data with the help of the instructor; (iii) the instructor then gathers everyone’s data and anonymously compiles them; (iv) in the meantime, each student completes a worksheet that has a set of theoretical and methodological questions about the experiment, his/her own experimental data, the implications of these data in relation to the theoretical questions examined, and potential limitations of the experimental design and data; (v) finally, the instructor shows the students’ anonymously compiled data to the rest of the class and goes over the questions in the worksheet, eliciting responses from students and critically evaluating the sample study done that week; (vi) at the end of class, students hand in their worksheet to the instructor.

Throughout the semester, students complete a total of eight sample psycholinguistic studies:

1. A click study, aimed at assessing the psychological reality of syntactic constituents in auditory sentence processing
2. An iconic memory (i.e., “Sperling”) study, aimed at assessing the size of iconic memory span in readers
3. A speech perception (i.e., “Ganong”) study, aimed at assessing the roles of acoustic and lexical factors on speech perception
4. A lexical decision study, aimed at assessing the roles of lexical status and lexical frequency in word recognition
5. A priming study, aimed at assessing the factors that facilitate vs. inhibit word recognition (e.g., semantic relatedness vs. orthographic overlap)
6. A self-paced reading study, aimed at assessing the factors that guide the comprehension of temporarily ambiguous sentences (e.g., verb bias, plausibility)
7. A production experiment, aimed at assessing the size and type of constituents used in speech planning (e.g., phrase vs. clause)
8. A hemispheric visual-field experiment, aimed at assessing whether there is facilitation for word recognition in the right visual field (corresponding to the left hemisphere) as compared to the left visual field (corresponding to the right hemisphere), consistent with language lateralization

In addition to these eight sample studies, students visit the Phonetics and Psycholinguistics Lab and the Neurolinguistic and Language Processing Lab, where they become acquainted with the equipment available in these labs and the resources that can be used for experimental design and data analysis. In the Neurolinguistic and Language Processing Lab, students also see a sample neurolinguistic experiment that consists of measuring Event Related Potentials on a participant’s scalp via electro-encephalography. This experiment is more technical and tedious, so students observe a demonstration of the experiment rather than doing it themselves. Although students do not do an experiment that week, they still have to complete a worksheet with questions about the design and data analysis of studies using such a method.

Thus, in these lab sessions, not only do students receive hands-on experience completing psycholinguistic experiments and analyzing experimental psycholinguistic data, but they also have the opportunity to relate these data to important theoretical questions discussed in class, they compare their results to those of the corresponding published studies, and they perform a critical evaluation of the experimental design used in these studies for answering specific theoretical questions. As such, students conduct analysis and interpretation of psycholinguistic data obtained by measurements using appropriate psycholinguistic methods, they use established psycholinguistic theories and models to develop and critically evaluate conclusions drawn from data analysis, and they understand and identify sources of error and uncertainty in experimental results.