Neurolinguistics

Fall 2024

Welcome to Neurolinguistics! The Fall 2024 course information and materials are below. Course materials from previous semesters are archived here.

Syllabus

Course Description: Neurolinguistics is a seminar on language and the brain. For the first few weeks, you will build a foundation of knowledge, first on how brains work (neurons, networks, and anatomy) and later on the methods researchers use to study language in the brain. The remainder of the course will explore the literature on different topics in language and the brain, including various levels of linguistics (phonology, morphology, syntax), acquisition, evolution, signed languages, and more.

Prerequisites: This course is open to all graduate students and upper-level undergraduates. No specific background in neuroscience or linguistics is necessary to participate in the course. However, this is an advanced seminar-style course; students looking for a lecture formart will not enjoy this course.

Instructor: Dr. Katie Schuler (she/her)

- You can call me **Katie**

Seminars: Thursday at 1:45pm in TBD

Office Hours: The linguistics department is located on the 3rd floor of 3401-C Walnut street, between Franklin's Table and Modern Eye.

- Katie Schuler: TBD in 314C

Requirements: This is an advanced STEM seminar. Below are the major requiements, but please read the tips for seminars to understand further:

- **Reading prep**: Each week, you will be responsible for preparing for the discussion by completing the assigned reading. As you read, you are responsible for asking questions and beginning the discussion of the paper in our reading annotation tool, Perusall.
- **Discussion leader**: Several times throughout the semester (but not every week), you will serve as discussion leader for a paper with one or two other students. As discussion leader, your group will be responsible for presenting the paper, including summarizing (motivation, research questions, approach, and findings) and leading a discussion of the work.
- **Final paper**: You will select a paper of interest to you (within the bounds of language and the brain) and write a research analysis of the work (in the form of a nature "News & Views" paper; example here). There are a few checkpoints leading up to this final paper (including peer review) to help you make progress.

Grading:

- 30% Participation in discussion (including reading prep in Perusall)
- 40% Discussion leader
- 30% Final paper (including several check-points throughout the semester: paper selection, outline, drafts, and peer review)

Accomodations: I will support any accommodations arranged through Disability Services via the Weingarten Center and to make alternate arrangements when class conflicts with a religious holiday. Please notify me as soon as possible if you require accomodations.

Extra credit: There is no extra credit in the course. However, students can submit any missed reading prep by the end of the semester for half credit (50%). To ensure fair treatment, all students will receive a 1% "bonus" to their final course grade: 92.54% will become 93.54%.

Support: Asking for help is a sign of strength! I hope you'll reach out to me if you need help (acamdeically or otherwise). I also want you to be aware of Penn's Academic & Wellness Resources

Resources

In addition to our course website, we will use the following:

- canvas- for posting grades
- perusall - for reading annotations
- ed discussion - for announcements and questions

Other helpful materials and resources:

- tips for seminars

Please consider using these Penn resources this semester:

- Weingarten Center for academic support and tutoring.
- Wellness at Penn for health and wellbeing.

Readings

> **Under Construction**
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> Topics and readings may change slightly based on class interest, but this is to give you an idea of the topics

- Week 3: Networks
  - Catani, Jones, & Ffytche 2005
  - Fedorenko & Thompson-Schill 2014
- Week 4: Perspective
  - Krakauer et al 2017
  - Embick & Poeppel 2015
- Week 5: Phonemes
  - Scott et al 2000
  - Nishimura et al 1999
  - Werker & Hensh 2015
- Week 7: Syntax
  - Ding et al 2016
  - Kaan & Swaab 2002
- Week 8: Semantics
  - Lau et al 2008
  - Friedrich & Friederici
- Week 9: Acquisition
  - Perani et al 2011
  - Lenneberg 1969
- Week 11: Sign Language
  - Mayberry et al 2011
  - Petitto et al 2000
- Week 12: Bilingualism
  - Weber-Fox & Neville 1996

  - Osterhout et al 2006

- Week 13: Evolution
  - Wilson et al 2017
  - Rilling et al 2008

- Week 15: Cerebellum
  - Marien et al 2014
  - Lesage et al 2012

Schedule

Week	Date	Topic	Presenter(s)	Due
1	Aug 29	Getting started	Katie	
2	Sep 5	CNS, neurons, and methods	Katie	
3	Sep 12	Networks	TBD	
4	Sep 19	Perspective	TBD	
5	Sep 26	Phonemes	TBD	
6	Oct 3	**Fall break**		
7	Oct 10	Syntax	TBD	
8	Oct 17	Semantics	TBD	
9	Oct 24	Acquisition	TBD	
10	Oct 31	**Catch up (in case of cancellation)**	TBD	
11	Nov 7	Sign language	TBD	
12	Nov 14	Bilingualism	TBD	
13	Nov 21	Evolution	TBD	
14	Nov 28	**Thanksgiving break**		
15	Dec 5	Cerebellum	TBD	
16	Dec 9	Last day of classes (no class)		
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