# Psycholinguistics (LING 4105/6105) – Spring 2025

Prerequisites: LING 2100, LING 2100E, or LING 2100H

# **Course meeting times**

<u>Class meeting time</u>: Mondays, Wednesdays, and Fridays, 10:20 am – 11:10 pm

Class meeting location: Psychology 0111

### **Instructor information**

<u>Instructor</u>: Prof. Steven Foley (any pronouns)

Email: srfoley@uga.edu

I will respond to emails within 24 hours

Office hours: Mondays, 2:00–4:00 pm

and by appointment Gilbert Hall 118A

Website: https://stevenrfoley.github.io/

# Course description and details

An introduction to psycholinguistic theory and methodology. Topics include phonological perception, lexical access, morphological processing, and syntactic and semantic comprehension. Special focus will be placed on relating these concepts to other domains in cognitive science, including theoretical linguistics, cognitive psychology, and cognitive neuroscience.

#### Learning outcomes

Upon successful completion of this course you should be able to:

- Understand basic principles of the psycholinguistic study of language processing
- Connect behavioral data with linguistic theory and analysis
- Interpret and evaluate findings from the primary psycholinguistic literature

This course also fulfills the following University-wide learning outcomes:

- Students will be able to express ideas in writing with clarity and fluency.
- Have the ability to express, manipulate, and apply mathematical information, concepts, and thoughts using appropriate mathematical forms, including numeric, graphical, verbal, and symbolic forms for solving a variety of problems
- Explain how knowledge is constructed in the sciences using the scientific method.
- Locate and evaluate reliable sources of scientific evidence to construct arguments, to apply scientific knowledge, and to critically assess real-world issues
- Express and manipulate quantitative information, concepts, and thoughts in verbal, numeric, graphical, computational, and symbolic form to frame and devise a solution to a problem
- Evaluate conclusions drawn from or decisions based on quantitative data

### Course topics

- Fundamental concepts in psycholinguistics vis-à-vis formal linguistics
- Theories of and important phenomena in phonological processing, lexical access, morphological decomposition, sentence processing, and semantic processing
- Major behavioral research methodologies used to study language processing
- Methods of analyzing psycholinguistic data (categorization, judgements, reading times)

# Required course materials

<u>Textbook</u>: None required. Good references are:

Sedivy, Julie. 2019. Language in Mind: An Introduction to Psycho-

linguistics. Second edition. Oxford University Press.

Warren, Paul. 2012. Introducing Psycholinguistics. Cambridge

University Press.

Additional materials: All readings will be posted on eLC

# Assessment and grading

### Course assignments and requirements

	LING 4105	LING 6105
Attendance and active participation	10%	10%
Lab participation and write-ups	40%	40%
Reading reactions (x5)	20%	20%
Final write-up	30%	15%
In-class presentation	_	15%

### **Class Participation**

It is expected that students come to class as much as possible, having completed any assigned readings, and have reviewed the previous class's material if necessary. Class time is short and valuable, and it is imperative to use this time productively.

#### <u>Labs</u>

Students will be expected to be a participant in two or three experiments that will relate to the topics in the class. These experiments will be conducted on the internet or in the UGA Linguistics Lab, and will take approximately 30–45 minutes. The experiments will then be analyzed and discussed in class. Students will download and analyze the data, including

visualizing the data. Students will write a short (ca. 5 pages) report explaining whether and how the data support one of two hypotheses. Instructions on each experiment, including conducting the study, downloading the data, and analyzing the results, will be provided in advance. The design of each experiment and the materials will be handled by me.

The data from these experiments will not be published, as this experiment is a class exercise. The first lab will concentrate on phonemic categorization or morphological processing, and the second lab will concentrate on syntactic or semantic processing.

Each lab will be made available in class. Students will be expected to follow the instructions, conduct the experiment with themselves as the participant, and then e-mail me the resulting data (following the instructions). This must be done by the 'due' date in the weekly schedule in order to be included. After I collect all the data, students will then have 2 weeks to finish the write-up.

#### **Reading Reactions**

Each unit will have two papers assigned. One paper will be a "classic" paper that we will review in class. These are assigned to prepare you for the conversation; it is helpful to look at the graphs of the experiments and see if you can interpret them before we discuss them. Think of the classic papers as your textbook. It is okay if you do not understand everything, or if you cannot make sense of the data. We will cover these carefully in the lecture.

The second paper will be a new, recently published paper. The goal of including these papers is so that you get some practice reading current research and get a flavor for the kinds of questions that are animating discussion in the field. I will ask that you post some comment, question, concern, or other reaction that you had to the paper for the week after we discuss the relevant content on the ELC discussion board. For instance, the paper that I assign for the 'Syntax' section will be due the week after we finish talking about Syntax. I will be sure to remind you for each due date. I will ask that you read five new papers. If you stumble upon a paper that is directly related to a lecture topic, and it is published within the last 5 years, then you may ask to read and comment on this instead.

### Final Write-Up

At the end of the course, students will be expected to submit a final paper. The goal of this final paper is to provide you with an opportunity to explore some topic that we have explored in class in further depth. For undergraduate students, the expectation will be a  $\sim 5-10$  page literature review on some question in psycholinguistics. A reasonable expectation is that this literature review should describe the findings of 2–3 papers on a related topic, and compare and contrast the core ideas of these studies.

For graduate students, the expectation will be a  $\sim 10-15$  page paper, which will consist of a literature review and a proposal for a new project. This proposal could be a new experiment, a computational modeling project, or any other project that could (potentially) be done and complement that student's developing research portfolio. It is encouraged to discuss these projects early and often with me, especially if you would like to conduct the study in the future.

#### Additional Requirements for Graduate Students

Graduate students will be held to higher standards on research skills and review of primary research to demonstrate application of concepts learned in this class. Specifically, graduate

students will (i) write a final term paper including a substantial literature review and a novel experiment proposal on some issue in phonological, morphological, syntactic, or semantic comprehension or production, and (ii) give a final presentation on this topic.

### Missed exams, late assignments, and regrading requests

Group projects, your individual paper, and your final paper, are due at 11:59 pm ET on their respective due dates, unless otherwise instructed. These items may be turned in after the deadline, but you will be eligible for fewer points once the deadline has passed: you will only be eligible for 95% of the total grade if it is submitted by 3 am that night, and you will lose an additional 10% from the total you are eligible to earn for every 12 hour period it is late thereafter. Papers more than three days late will earn a grade of 0.

Extensions will not generally be permitted, but if you think you are subject to an exceptional circumstance, please discuss it with me outside of class or by emailing me at least 24 hours before the original deadline.

#### Final grades

A	93–100	<i>C</i> +	76–79
A-	90–92	C	73–75
B+	86–89	<i>C</i> -	70–72
В	83–85	D	60–69
В-	80–82	F	<60

Final grades will be rounded to the nearest whole number (e.g. 89.50 to 90, and 89.49 to 89).

# Course statements and policies

#### UGA honor code

"I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at <a href="honesty.uga.edu">honesty.uga.edu</a>.

Honesty and transparency are important features of good scholarship. On the flip side, plagiarism and cheating are serious academic offenses with serious consequences. If you are discovered engaging in either behavior in this course, I will follow the procedures laid out in UGA's Academic Honesty Policy. There you can also find more information about what counts as prohibited conduct.

I encourage you to work together on homework assignments and to make use of campus resources like the Office of Student Success & Achievement and the Writing Center. While collaboration is encouraged, each student must submit a unique assignment reflecting their own work.

If you have questions about my integration of the Student Code of Conduct into this course, please do not hesitate to ask: my aim is to foster an environment where you can learn and grow, while ensuring that the work we all do is honest and fair.

#### Accommodation for disabilities

If you plan to request accommodations for a disability, please register with the Disability Resource Center. They can be reached by visiting Clark Howell Hall, calling 706-542-8719 (voice) or 706-542-8778 (TTY), or by visiting http://drc.uga.edu.

### Attendance & participation policy

Class participation is a very important part of the learning process in this course. Although not explicitly graded, you will be evaluated on the *quality* of your contributions and insights. Quality comments possess one or more of the following properties:

- Offers a different and unique, but relevant, perspective;
- Contributes to moving the discussion and analysis forward;
- Builds on other comments;
- Transcends the "I feel" syndrome. That is, it includes some evidence, argumentation, or recognition of inherent tradeoffs. In other words, the comment demonstrates some reflective thinking.

We will use our assessment of your participation to manage borderline grades. While your participation grade is subjective, it will not be random or arbitrary. And, clearly, more frequent quality comments are better than less frequent quality comments.

#### Use of AI in this course

UGA's policy is that the use of AI for coursework is not permitted unless explicitly authorized by me (your course instructor) ahead of time. In this course, to ensure you develop and master the foundational knowledge and skills in this course, the use of generative AI (GAI) tools is strictly prohibited. This includes all stages of your work process, even the preliminary ones. This prohibition extends to AI writing tools like Grammarly and Wordtune, as well as GAI tools like ChatGPT, Copilot, Writesonic, Rytr, and Rtutor. If you are uncertain about using a particular tool to support your work, please consult with me before using it.

#### Well-being resources

UGA Well-being Resources promote student success by cultivating a culture that supports a more active, healthy, and engaged student community.

Anyone needing assistance is encouraged to contact Student Care & Outreach (SCO) in the Division of Student Affairs at 706-542-8479 or visit <a href="mailto:sco.uga.edu">sco.uga.edu</a>. Student Care & Outreach helps students navigate difficult circumstances by connecting them with the most appropriate resources or services. They also administer the <a href="mailto:Embark@UGA">Embark@UGA</a> program which supports students experiencing, or who have experienced, homelessness, foster care, or housing insecurity.

UGA provides both clinical and non-clinical options to support student well-being and mental health, any time, any place. Whether on campus, or studying from home or abroad, UGA Wellbeing Resources are here to help.

- Well-being Resources: well-being.uga.edu
- Student Care and Outreach: sco.uga.edu
- University Health Center: <u>healthcenter.uga.edu</u>
- Counseling and Psychiatric Services: <u>caps.uga.edu</u> or CAPS 24/7 crisis support at 706-542-2273
- Health Promotion/ Fontaine Center: <u>healthpromotion.uga.edu</u>
- Disability Resource Center and Testing Services: drc.uga.edu

Additional information, including free digital well-being resources, can be accessed through the UGA app or by visiting <a href="https://well-being.uga.edu">https://well-being.uga.edu</a>.

#### Disclaimer

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

# **Course schedule and activities**

Subject to change — pay attention to announcements on eLC

Plan to submit reactions to five readings marked with asterisks

Week	Date	Topic	Agenda
1	M, Jan 6	Introduction	
	W, Jan 8		Read Marr 1982, esp. §1.2
	F, Jan 10		Complete Student Survey
2	M, Jan 13	Categorical perception	Watch Kuhl 2011 (TED talk)
	W, Jan 15		Read Rong et al. 2023*
	F, Jan 17		Introduce Lab #1
	M, Jan 20	Mart	tin Luther King Jr. Day – No class
3	W, Jan 22	Top-down phonological	Read Dupoux et al. 1999
	F, Jan 24		Read Corcoran et al. 2023* Lab #1 data due
	M, Jan 27	perception	Lab #1 discussion
4	W, Jan 29		
	F, Jan 31		Class Cancelled
	M, Feb 3	Lexical Access	Read Allopenna et al. 1998
5	W, Feb 5		Read Lukic et al. 2023*
	F, Feb 7		Lab #1 write-up due
	M, Feb 10	Morphological Decomposition & Recomposition	Read Rastle & Davis 2008
6	W, Feb 12		Read Creemers et al. 2023*
	F, Feb 14		Read Zweig & Pylkkänen 2009
	M, Feb 17	1	Read Cayado et al. 2024*
7	W, Feb 19	Island Effects	Read Sprouse et al. 2012
	F, Feb 21		
8	M, Feb 24	Reanalysis and the Garden Path Model	Read Van Gompel et al. 2001
	W, Feb 26		Read Christianson et al. 2001
	F, Feb 28		Introduce Lab #2
		Spring Break	
9	M, Mar 10	Good Enough Parsing	Read Ferreira & Patson 2007
	W, Mar 12		Read Cutter et al. 2022*
	F, Mar 14		Lab #2 data due
10	M, Mar 17	Ambiguity and	Read Tabor et al. 2004
		Local Coherence	Read Cotter & Ferreira 2023*

	F, Mar 21		Lab #2 discussion
11	M, Mar 24	Agreement Attraction	Read Wagers et al. 2009
	W, Mar 26		Read Bhatia & Dillon 2022*
	F, Mar 28		
12	M, Mar 31	Anaphora	Read Dillon et al. 2013
	W, Apr 2		Read Wagers et al. 2023*
	F, Apr 4		Lab #2 write-up due
13	M, Apr 7	Semantic Composition	Read Pylkkänen 2019
	W, Apr 9		
	F, Apr 11		
14	M, Apr 14	Spillover	
	W, Apr 16		
	F, Apr 18		TBA
15	M, Apr 21		
	W, Apr 23		
	F, Apr 25	Final presentations	
16	M, Apr 28	Final presentations	

### **Readings**

- Allopenna, Paul D., James S. Magnuson, and Michael K. Tanenhaus. 1998. Tracking the time course of spoken word recognition using eye movements: Evidence for continuous mapping models. *Journal of Memory and Language* 38, 419–439.
- Bhatia, Sakshi, and Brian Dillon. 2022. Processing agreement in Hindi: When agreement feeds attraction. *Journal of Memory and Language* 125, 104322.
- Cayado, Dave K. T., Samantha Wray, Dustin A. Chacón, Marco C.-H. Lai, Suhail Matar, and Linnaea Stockall. 2024. MEG evidence for left temporal and orbitofrontal involvement in breaking down inflected words and putting the pieces back together. *Cortex* 181, 101–118.
- Chacón, Dustin A. 2022. Default is different: Relations and representations in agreement processing. *Language, Cognition and Neuroscience* 37(6), 785–804.
- Christianson, Kiel, Andrew Hollingworth, John F. Halliwell, and Fernanda Ferreira. 2001. Thematic roles assigned along the garden path linger. *Cognitive Psychology* 42, 368–407.
- Corcoran, Andrew W., Ricardo Perera, Matthieu Koroma, Sid Kouider, Jakob Hohwy, and Thomas Andrillon. 2023. Expectations boost the reconstruction of auditory features from electrophysiological responses to noisy speech. *Cerebral Cortex* 33, 691–708.
- Cotter, Beverly T., and Fernanda Ferreira. 2023. The relationship between working memory capacity, bilingualism, and ambiguous relative clause attachment. *Memory & Cognition* 52, 1530–1547.
- Creemers, Ava, Nattanun Chanchaochai, Meredith Tamminga, and David Embick. 2023. The activation of embedded (pseudo-)stems in auditory lexical processing: Implications for models of spoken word recognition. *Language, Cognition, and Neuroscience* 38(7), 966–982.

- Cutter, Michael G., Kevin B. Paterson, and Ruth Filik. 2022. Online representations of non-canonical sentences are more than good-enough. *Quarterly Journal of Experimental Psychology* 75(1), 30–42.
- Dillon, Brian, Alan Mishler, Shayne Sloggett, and Colin Phillips. 2013. Contrasting intrusion profiles for agreement and anaphora: Experimental and modeling evidence. *Journal of Memory and Language* 69(2), 85–103.
- Dupoux, Emmanuel, Kazuhiko Kakehi, Yuki Hirose, Christophe Pallier, and Jacques Mehler. 1999. Epenthetic vowels in Japanese: A perceptual illusion? *Journal of Experimental Psychology* 25(6), 1568–1578.
- Ferreira, Fernanda, and Nikole D. Patson. 2007. The 'Good Enough' approach to language comprehension. *Language and Linguistics Compass* 1(1–2), 71–83.
- Kuhl, Patricia. 2011. The linguistic genius of babies. TED Talk. https://www.ted.com/talks/patricia kuhl the linguistic genius of babies?subtitle=en
- Lukic, Sladjana, Alexandra Krauska, Masaya Yoshida, and Cynthia K. Thompson. 2023. The role of category ambiguity in normal and impaired lexical processing: Can you paint without the paint? *Frontiers in Human Neuroscience* 17, 1028378.
- Marr, David. 1982. Vision: A computational investigation into the human representation and processing of visual information. San Francisco: W. H. Freeman and Company.
- Pylkkänen, Liina. 2019. The neural basis of combinatory syntax and semantics. *Science* 366(6461), 62–66.
- Rastle, Kathleen, and Matthew H. Davis. 2008. Morphological decomposition based on the analysis of orthography. *Language and Cognitive Processes* 23(7/8), 942–971.
- Rong, Yicheng, Yi Weng, and Gang Peng. 2023. Processing of acoustic and phonological information of lexical tones at pre-attentive and attentive stages. *Language, Cognition, and Neuroscience* 39(2), 215–231.
- Sprouse, Jon, Matt Wagers, and Colin Phillips. 2012. A test of the relation between working-memory capacity and syntactic island effects. *Language* 88(1), 82–123.
- Tabor, Whitney, Bruno Galantucci, and Daniel Richardson. 2004. Effects of merely local syntactic coherence on sentence processing. *Journal of Memory and Language* 50(4), 355–370.
- Van Gompel, Roger P.G., Martin Pickering, and Matthew J. Traxler. 2001. Reanalysis in sentence processing: Evidence against current constraint-based and two-stage models. *Journal of Memory and Language* 45(2), 225–258.
- Wagers, Matthew W., Manuel F. Borja, and Sandra Chung. 2023. Processing reflexive pronouns when they don't announce themselves. *Glossa Psycholinguistics* 1(1), 1–41.
- Zweig, Eytan, and Liina Pylkkänen. 2009. A visual M170 effect of morphological complexity. *Language and Cognitive Processes* 24(3), 412–439.