



◆ LING 171: Psycholinguistics I ◆

Fall 2023 (September 28th–December 15th)

Lectures: Mondays, Wednesdays, & Fridays, 12–1:05 pm, Rachel Carson Acad. #240

Sections: Thursdays (A: 1:30–2:35 pm, B: 3:20–4:25 pm), Social Sciences 2 #363

Instructor: Lalitha Balachandran (she/her)

Contact: lalithab@ucsc.edu

Office Hours (OH): T 2–3 pm, Zoom & F 10–11 am, Stevenson 265

TA: Elif Ulusoy (they/them)

Contact: elulusoy@ucsc.edu

OH: W 10–11 am, Stevenson 265

✿ 1: General Course Information ✿

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Course description. Psycholinguistics develops models of how our individual systems of language are realized in the mind & brain. At its core are three areas: the acquisition, perception, & production of language. It is a cross-disciplinary enterprise that brings together findings and hypotheses from multiple traditions: formal linguistics (phonology, semantics, syntax); psychology (memory, cognitive control, learning); neuroscience; computer science; and others. This course is a hands-on, laboratory-style introduction to these topics, focusing on the relation between experimental findings and linguistic theory. As responsible experimentation requires a strong foundation in statistics, it also satisfies the **Statistical Reasoning General Education** requirement.

The **first goal** of LING171 is to **introduce some of these foundational questions**. We will examine core properties of mental processes and representations involved in language processing; consider how those properties constrain or interact with theories of linguistic knowledge; and how linguistic processes unfold over time-scales small and large.

Another important goal of the course involves understanding **how knowledge is created in cognitive science**. Course participants will learn the basics of experimental design and core experimental techniques in linguistics. To do that, we will conduct some psycholinguistic experiments on ourselves (and our friends). Along the way, **you will achieve facility in quantitative skills, reading articles, and reporting original research** through explicit guidance and practice.

We will examine two core domains together: (i) **word structure and word recognition** and (ii) **syntactic structure and sentence comprehension**. In each of these domains, we will explore issues in perception, production, and acquisition of language. However, this course is not designed as an exhaustive survey course: it is meant to be deep rather than broad.

Course Learning Outcomes By the end of this course, you will be able to:

- ◆ **[LO1]** Describe and apply basic principles of language processing in the three core areas (perception, production, and acquisition) at the word and sentence levels.
- ◆ **[LO2]** Read, understand, and synthesize articles in psycholinguistics, psychology, and cognitive science.
- ◆ **[LO3]** Gain the theoretical, technical, and quantitative skills needed to design and execute a psycholinguistics experiment from start to finish, and in the process, see yourself as a producer of novel scientific knowledge.
- ◆ **[LO4]** Develop the skills to break down a complex task into structured, manageable steps through practice and self-reflection on your individual learning process, in a way that you can carry forward to future projects.
- ◆ **[LO5]** Craft two original pieces of discipline-specific writing.
- ◆ **[LO6]** Contribute to a scientific community of peers by communicating scientific concepts clearly, providing constructive feedback, and collaborating with care.

***A note about stats & writing skills:** if you're experiencing anxiety associated with these skills, know that this is extremely common, and you do not have to tackle this alone! This course is designed to break each of these skills down into manageable pieces, but we're also here to offer you extra support. Sections and Office Hours are your friends 😊

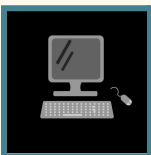
❁ 2: Course Materials ❁



The easiest way to access course materials will be through the [Modules page on Canvas](#). Course modules are structured by weekly content – you can find everything you need to complete the weekly assignments there. **Be sure you're signed in with your @ucsc credentials when you are doing course work**, especially when accessing course documents. You can find information about the teaching team (including how to contact us) on the course [Home page on Canvas](#). Please be sure to turn on **announcement notifications on Canvas** – this is how we'll communicate with you.



There is no need to purchase a textbook for this course. We'll work through parts of Warren's (2012) *Introducing Psycholinguistics*, which you can access for free through the [UCSC Library](#). The PDFs of relevant chapters will also be made available to you through Canvas. Finally, we will read several primary texts and journal articles; PDFs of these will be made available to you as well.



You will need a reliable computer and a reliable internet connection throughout the course. We'll ask you to complete a number of collaborative, computer-based assignments in order to complete the labs, both in class, with your lab group, and on your own. To that end, we ask that you **bring a device (laptop or tablet, preferably not a phone) to class with you every day**. [Laptop rentals](#) are available through the UCSC Library, but if you anticipate this being an issue for any reason, please reach out to us ASAP so that we can come up with an alternative plan!

❁ 3: Grades & Evaluation ❁

Assignment Type	%	Assignment Details
<p>Engaged Participation</p> <ul style="list-style-type: none"> Complete 9/14 Reading & Reflection assignments (quizzes, annotations, or discussion posts associated with weekly readings) Lecture & section attendance 	20%	<p>Reading & Reflection assignments (10%). Each week, there will be 1-2 sources that you may choose to read and engage with, either by completing a comprehension quiz, by leaving annotations in the margins of the text, or by responding to reflection questions via a Canvas discussion post. Only 9/14 required; the rest are extra credit. *Note that these assignments will be graded based on evidence of <i>engagement & completion</i> – that is, we are not looking for “right” answers here! Just evidence that you’ve critically engaged with the course material.</p> <p>Lecture & section attendance (10%). Your presence in lecture and section are vital to your learning and success in this course. There is a *lot* of material to cover to prepare you for the lab assignments, and we’ll do a significant amount of hands-on work during our course meetings to get there! That being said, we recognize that things come up sometimes – you will never be penalized for excused absences (for illnesses, injuries, personal emergencies, caretaking needs, etc.) as long as you communicate with us in advance. We’re more than happy to be flexible and work with your schedules. If you plan on missing class, be sure to email us as soon as possible!</p>
<p>Problem Sets (7 total)</p>	40%	<p>There will be 7 (nearly weekly) problem sets that are designed to help you build the theoretical, practical, and statistical skills necessary to complete the lab reports (see below). You will generally have at least 1 week to complete each problem set; you are welcome and encouraged to complete these in collaboration with your lab group and/or other classmates. On weeks where there is a problem set, it will be due on Wednesday at 11:59 pm. The lowest Problem Set score will be dropped.</p>
<p>Lab Reports (2 total, each with 4 parts)</p>	40%	<p>You will complete two labs, one having to do with lexical processing (the <i>LexLab</i>, worth 20% of your grade) and the other having to do with syntactic processing (the <i>SynLab</i>, another 20%). There are some important features of these labs to be aware of:</p> <ul style="list-style-type: none"> Although there is a final “due date” for the lab reports, each lab will take 3-4 weeks to complete and will be staged with milestone tasks (parts 1-5) to be

Lab Reports

(2 total, each with 4 parts)

turned in incrementally. Your overall lab grade will depend only in part on the quality of the final report; it will most heavily weigh timely completion of the intermediate milestone tasks. These tasks are designed to help keep you on track by breaking a complicated task into a series of less complicated ones.

- The labs are *collaborative*: they require working with members of your section. You will be given explicit instructions about the nature of the collaboration, and how to attribute credit. See also the [Academic Integrity](#) section.
- The first lab is quite formulaic - it comes with extensive instructions to be followed step-by-step to completion, in order to help you build necessary skills with support along the way. For the second lab, each group will be able to exercise some creativity by deciding on a few choice points in design and execution.
- We will discuss the expectations/rubric for the lab reports extensively in class together prior to the final due dates so that you know how you will be evaluated.

Experiment Participation* up to
(extra credit) 2%

You can earn up to 2% extra points on your total grade if you participate in an experiment conducted by UCSC linguists, or in a research alternative, and submit a brief reflection on your experience. This is a great opportunity for you to get a sense of what types of experimental methods and research questions folks in our department are currently working on - we especially encourage this if you think you might be interested in continuing to work on psycholinguistics! There are often Research Assistant opportunities for undergraduates to get involved.

To participate in an experiment, sign up for a SONA account [here](#). Be sure to select "LING171" as your course when you sign up. It's your responsibility to be on the look-out for studies that award course credit and to complete a study no later than December 13, 2023! Studies may be online or in-person. If you participate in **1** credit (up to 1 hour) you will earn 1%; in **2** credits (up to 2 hours) you will earn 2%. In Week 8 of Fall Quarter, we will release a **research alternative**. If you prefer - for any reason, whatsoever - not to take part in a Linguistics experiment, or are under the age of 18, or cannot find a study time to suit you, you will be given a chance to hear a research talk and turn in a report to earn extra credit.

***A note on your eligibility & rights as a research participant:** You are eligible to participate in all course-credit studies if you are 18 or older. There are no other requirements that researchers can impose. For example, researchers cannot require English to be your native language, even if the study is conducted in English.

Late work policy

We understand that you all have a number of competing responsibilities, and that sometimes, life gets in the way of course deadlines. In order to give you some flexibility, all assignment due dates have a built-in 48 hour grace period: for example, an assignment due on W at 11:59 pm may be turned in on F at 11:59 pm for no point deduction. Beyond that, any assignment may be turned in up to a week late for a small point deduction (a "perfect" assignment will receive a maximum of 90%). To keep you (and the teaching team) on track, we will not be able to accept assignments more than a week past the original due date.

Of course, if you find yourself facing extenuating circumstances, please reach out to us to let us know - we can't anticipate all of the possible barriers that may come up for each of you, so this policy is not set in stone, and we're more than willing to adjust on a case-by-case basis. If you're in doubt about your situation, or you find yourself worried about your progress in the course, **please come talk to us as soon as possible**. We're here to support you in reaching your academic goals, but we can only do so if you reach out early and often!

❁ 4: Course Schedule ❁

Generally, we will follow a set weekly schedule, indicated below. Assignments will be released on Mondays, and depending on the assignment type, will be due the following Monday, Wednesday, or Friday.

- Mondays: Reading & Reflection assignments due
- Wednesdays: Problem Sets due
- Fridays: Lab assignments due*

*See below for exceptions (LexLab 4 and SynLab 1) due to campus holidays. These due dates will be shifted to the following Sunday.

Su	M	T	W	Th	F	Sa
—	<ul style="list-style-type: none"> • Reading & Reflection assignment(s) due by 11:59 am Lecture: 12-1:05 pm <ul style="list-style-type: none"> • M afternoon: All assignments for the following week are released 	—	Lecture: 12-1:05 pm <ul style="list-style-type: none"> • Problem Set due by 11:59 pm 	Section* <ul style="list-style-type: none"> • A: 1:30-2:35 pm • B: 3:20-4:25 pm 	Lecture: 12-1:05 pm <ul style="list-style-type: none"> • Lab assignment due by 11:59 pm 	—

*Please generally plan to attend the section you are enrolled in; if something comes up and you need to attend a different section for a week or two, that's fine! Just be sure to let the section leader know via email.

Week-by-week Schedule

Please keep in mind that this is a living document – as such, due dates & assignments indicated below are subject to change. In the table below, readings that correspond to reflection assignments are highlighted in blue; those that correspond to problem sets are in purple; and those that correspond to labs are in pink. * = Optional assignments (for extra credit)

Week	Topic	Readings & Reflections	Assignment due dates (M/W/F)
0	Introduction to psycholinguistics	R0a: Syllabus Annotation R0b: Pre-course Survey R1: My (so-called) psycholinguistic life	—
1	Introduction to psycholinguistics	R2: Warren (2012) Ch. 1 – “Introduction” R3: Marslen-Wilson (1975)	[M] Submit R0a/b; R1 reflection
2	Lexical access: word recognition	R4: Warren (2012) Ch.8 – “Spoken word recognition”	[M] R2 quiz; *R3 annotation [W] Problem Set (PS) 1: Speech shadowing, information flow, & correlation
3	Lexical access: word production	R5: Warren (2012) Ch.3 – “Finding words”	[M] R4 quiz [W] PS2: Activation, frequency, & descriptive statistics [F] LexLab 1 – Materials
*Wednesday 10/18/23: Deadline to drop course (with tuition reversal)			
4	Lexical access: word recognition & production	R6: Brain basics – Know your Brain R7: Hickok et al. (2001) – “Sign language in the brain”	[M] R5 quiz [W] PS3: These are the words in your neighborhood [F] LexLab 2 – Script
5	Functional neuroanatomy of language	R8: Warren (2012) Ch. 2 – “Planning utterances”	[M] R6 quiz or R7 discussion (*both = EC) [W] PS4: Inferential statistics + spreadsheet wrangling [F] LexLab 3 – Collecting data
6	Functional neuroanatomy of language/ Sentence planning & production	R9: Do et al. (2018) R9a (optional): Griffin & Bock (2000)	[M] R8 quiz (no PS) [Su] LexLab 4 – Lab report

*Wednesday 11/8/23: Deadline to withdraw from the course by requesting a “W” grade (no tuition reversal)

*No class on Friday 11/10 (Veterans Day holiday)

7	Sentence planning & production	R10: Bock (1995)	[M] *R9 annotation [W] PS5: Planning sentences (no lab)
8	Sentence planning & production/ Bilingual language processing	R11: Kroll - "Bilingualism Matters" R12: Meijer & Fox Tree (2003)	[M] R10 lab group discussion (no PS) [Su] SynLab 1 - Design proposal

*No class on Friday 11/24 (Thanksgiving holiday)

9	Sentence planning & production	R13: To err is human	[M] R11 discussion; *R12 annotation [W] PS6: Grammatical encoding in bilingual language users [F] SynLab 2 - Materials
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*Friday 12/1/23: Deadline to change grading option

10	Miscellaneous/spillover	—	[M] *R13 discussion [W] SynLab 3 - Writing practice; (no PS) [F] SynLab 4 - Script & data collection
Finals	—	—	[W] * PS7: Analyzing categorical data *Experiment participation due [F] SynLab 5 - Lab report

❁ 5: Additional Info & Policies ❁

◆ Communicating with us ◆

Generally, there are three ways to get in touch with the teaching team:

- By far the easiest way is to **email us directly** – we'll generally respond within 24 hours and/or during business hours (9 am to 5 pm) from Monday–Friday. Note that response times may be slower than usual over the weekend.
- For more in depth support with assignments, we recommend **attending Office Hours**. We each have one Office Hour per week. The first 30 minutes are scheduled, one-on-one appointment slots that you may choose to sign up for, and the rest are drop-in office hours that you can attend any time without an appointment. If none of these times work for you, we can schedule a meeting time outside of those hours. You can find information about the time/location of our Office Hours on the Canvas homepage, or in this spreadsheet.
 - ◆ [What are Office Hours?](#) ◆ Sign up for one-on-one Office Hour appointments [here](#). ◆
- We also have a **course Discord (click [here](#) to join)** – if you have quick clarification questions, you're welcome to send them here! This is a great way to crowdsource answers from your peers, or simply chat with one another. You're more than welcome to share aspects of your non-psycholinguistic life with our classroom community here (e.g., pictures of your pets, fun things you did over the weekend, recent accomplishments that you're proud of), so long as they are appropriate and align with our Community Guidelines (see the [Principles of Community](#) section).

◆ Principles of Community ◆

Linguistics is a collaborative, scientific discipline; this course in particular will offer you multiple opportunities to interact and work with your peers, both in and outside of class. In our discussions, whether synchronous (e.g., during lectures and sections, your lab group's work sessions, or in the course Discord) or asynchronous (e.g., in our Reading & Reflection assignment communications), **we embrace the value of open, respectful exchange** among all course

participants. At the same time, **we aim to prioritize being kind to one another, and approaching discussions with understanding and care.** We're dedicated to fostering a classroom environment where you feel welcome and comfortable with contributing candidly to discussions. To help achieve this, at the start of the course, we will jointly settle on Community Guidelines for respectful communication to determine how we as a collective wish to communicate about the topics in this course, resolve misunderstandings, and receive feedback from our peers.

◆ Academic Integrity ◆

As a member of the UCSC community, you are expected to approach your work with trust and with respect for the work of others. In this course, we expect you to honor this obligation, out of mutual respect for your fellow classmates and the teaching team, but also out of self-respect for your own growth and learning as a student. As you work on course content, please remember that **plagiarism** occurs when writers deliberately or unintentionally use another person's language, ideas, or materials and present them as their own without properly acknowledging and citing the source. If you copy text or ideas from another source (including your own previously, or concurrently, submitted coursework; work purchased from others and submitted as your own; and/or work copied from others with proper attribution) without appropriate reference, we are required to report this to the College Provost per university policy. For additional information on plagiarism, you can refer to the library's excellent resources on [source citation](#), tutorials on how to [avoid plagiarism](#), and checklists for ensuring that you have [properly cited your sources](#). We will be discussing discipline-specific citation practices during class, but if you are ever unsure of how or what to cite, please ask!

Collaboration. As mentioned above, research in psycholinguistics is meant to be done collaboratively! You are welcome and encouraged to discuss and work through Problem Sets and Reading & Reflection assignments with your fellow students in the class, but for these assignments, **you must write up your ideas independently.** For the lab assignments, many segments of the process will be completed in closer collaboration with your lab group – you will be permitted to submit the same assignment, with a few sentences explaining what each member of your group contributed. For certain sections of the lab report, you will also be permitted to co-write and submit identical language. We will explicitly note when this is acceptable, and when you're required to write up your work independently.

! Policy on AI-generated text. Generally speaking, we will not permit the use of text generated by AI (for example, ChatGPT or other large language models) as a tool to complete work in this course. There are two reasons for this.

- Recall Learning Outcome 5 on pg. 1 of this document: “Craft two *original pieces* of discipline-specific writing.” We will aim to prioritize working on how to build the tools to independently approach each step of writing a paper in psycholinguistics – a complex, multi-step process. In other words, a major component of the course is to learn how to produce scientific writing on your own, so that you can carry these skills forward in the future.
- Remember that content generated by AI is often not factually correct – i.e., these models do not have the ability to look up information, but rather generate text based on word-to-word associations from large, often outdated datasets; as such, in any instance where you are asked to come up with your own ideas or thought processes, you may not use AI-generated content to assist you. The only exception to this policy is that you may use AI to *edit and/or spellcheck* text for you, once you have already generated ideas and prose of your own. In this case, you are expected to cite the AI tool you utilized, like you would if you borrowed from any other source.

If we suspect inappropriate use of AI, we will meet with you to discuss your thought process and writing process on the relevant assignment(s), and may be obligated to pursue disciplinary action based on the outcome of that meeting.

✿ 6: Student Rights & Resources ✿

Statement on student wellbeing

The teaching team is committed to supporting student success holistically, which includes supporting your wellbeing as a person. We recognize that many of you may be facing external challenges which affect your ability to show up fully and authentically, and to participate in class. Know that we are available to discuss personal circumstances that may come up for you, as you see fit, and to help point you to campus resources like the ones below that may offer you mental health services, financial resources, accommodations, and more. At the same time, we will never expect that you disclose personal information in order to access accommodations or resources. **We encourage you to familiarize yourself with the campus resources described below,** should you find yourself in need of them.

◆ Accessibility ◆

UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with a disability who requires accommodations to achieve equal access in this course, please affiliate with the Disability Resource Center. I encourage all students to learn more about DRC services by contacting the DRC via phone at 831-459-2089 or via email at drc@ucsc.edu. For students already affiliated, make sure that you have requested Academic Access Letters, where you intend to use accommodations. You're also welcome to request to meet privately with me during my Office Hours or by appointment, as soon as possible, in order to discuss how we can implement your accommodations to ensure your access and full engagement in this course.

◆ Title IX & CARE ◆

UC Santa Cruz is committed to providing a safe learning environment that is free of all forms of gender discrimination and sexual harassment, which are explicitly prohibited under Title IX. If you have experienced any form of sexual harassment, sexual assault, domestic violence, dating violence, or stalking, know that you are not alone. The Title IX Office, the Campus Advocacy, Resources & Education (CARE) office, and Counseling & Psychological Services (CAPS) are all resources that you can rely on for support.

Please be aware that if you tell me about a situation involving Title IX misconduct, I am required to share this information with the Title IX Coordinator. This reporting responsibility also applies to course TAs and tutors (as well to all UCSC employees who are not designated as "confidential" employees, which is a special designation granted to counselors and CARE advocates). Although I have to make that notification, you will control how your case will be handled, including whether or not you wish to pursue a formal complaint. The goal is to make sure that you are aware of the range of options available to you and that you have access to the resources you need.

Confidential resources are available through [CARE](#). Confidentiality means CARE advocates will not share any information with Title IX, the police, parents, or anyone else without explicit permission. CARE advocates are trained to support you in understanding your rights and options, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more. You can contact CARE at (831) 502-2273 or care@ucsc.edu.

In addition to CARE, these resources are available to you:

- If you need help figuring out what resources you or someone else might need, visit the [Sexual Violence Prevention & Response \(SAFE\) website](#), which provides information and resources for different situations.
- [Counseling & Psychological Services \(CAPS\)](#) can provide confidential counseling support. Call them at (831) 459-2628.
- You can report gender discrimination and sexual harassment and violence directly to the University's [Title IX Office](#) by calling (831) 459-2462 or by using their [online reporting tool](#).
- Reports to law enforcement can be made to the UC Police Department, (831) 459-2231 ext. 1.
- For emergencies, call 911.

◆ Student Resources ◆

Counseling & Psychological Services. Many students at UC Santa Cruz face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation. Learn more at the [CAPS](#) website.

Tutoring & Learning Support. At Learning Support Services (LSS), undergraduate students build a strong foundation for success and cultivate a sense of belonging in our Community of Learners. LSS partners with faculty and staff to advance educational equity by designing inclusive learning environments in Modified Supplemental Instruction, Small Group Tutoring, and Writing Support. When students fully engage in our programs, they gain transformative experiences that empower them at the university and beyond.

Slug Support. College can be a challenging time for students and during times of stress it is not always easy to find the help you need. Slug Support can give help with everything from basic needs (housing, food, or financial insecurity) to getting the technology you need during remote instruction. To get started with SLUG Support, please contact the [Dean of Students](#) Office at 831-459-4446 or you may send us an email at deanofstudents@ucsc.edu.

Campus Emergencies. For all other help and support, including the health center and emergency services, Click here to go to UCSC's [Emergency Services](#) page. Always dial 9-1-1 in the case of an emergency.