Semantics I

LING 53 Winter 2021 Jake W. Vincent

UCSC Department of Linguistics
Updated 02/05/21

1 Course information

How does a sequence of sounds become associated with meaning?

1.1 Course description

This course is an introduction to the study of **linguistic meaning**. When we investigate how we use language to communicate meaning, we recognize two interacting systems: **the semantic system**, which is part of our knowledge of the language we speak, and **the pragmatic principles** that guide our interpretation of language in actual situations of use. This course is concerned with both the semantic and the pragmatic aspects of language understanding, with an emphasis on the semantic side.

Our goal is to investigate aspects of the semantics of English within the framework of an explicit theory of linguistic meaning. We will occasionally make reference to other languages as we go along, but knowledge of another language is not required or expected.

We will begin the course by distinguishing between the different **layers of meaning** an utterance conveys, defining the notions of **entailment**, **presupposition**, and **conversational implicature**. We will then move on to explore the basic meaning of verbs and the way the meaning of sentences is constructed from the meaning of their parts. We end with issues concerning reference and discourse. In talking about the meaning of sentences, we use the logical language of predicate calculus to help us arrive at a compositional account of the truth conditions of English sentences.

This course satisfies the MF General Education requirement (Mathematics and Formal Reasoning), which means it is expected to "teach students to think with rigor and precision, using formal or mathematical models to teach the value of logical reasoning and dispassionate analysis." It is also a named course requirement for the Linguistics major and minor, as well as the Language Studies major.

1.2 Course format and logistics

Course ID	Title	Days/Times	Location
LING 53	Semantics I	NA	Canvas

Lecture for this course will be completely aynschronous. There is no scheduled lecture time. Approximately five lecture videos (each being between 20 and 35 minutes) will be made available to you each week, and you will be responsible for viewing all of them. (For reference, in a typical quarter, weekly instruction time for a Monday–Wednesday–Friday class is 195 minutes, excluding section. We hope to stay substantially under this, but if we don't achieve that, we promise not to exceed 195 minutes.)

Discussion section (a.k.a. section) will be synchronous, and it will be held at the scheduled times (see the section schedule and Zoom links below). Section will begin in the second week of classes (01/11–01/15). Attendance in section is mandatory (i.e. it is part of your grade). We will excuse one absence in section for any reason (but you must be in contact with us). Any following absences may be excused on a case-by-case basis with communication from you. Please note that you are responsible for finding out what happened in section.

The online hub for the course will be Canvas; access the course page here. Lecture videos are hosted on YuJa, but they will be embedded on pages in Canvas. All work will be assigned and submitted on Canvas unless alternative arrangements are made with the course instructor (Jake). Make sure you are receiving notifications and/or emails from Canvas so that you can reliably receive notifications for the course.

1.3 Contact information and drop-in office hours

Role	Name	Contact	Office hours	Zoom link	Passcode
Instructor TA	Jake Vincent Vishal Arvindam	jwvincen@ucsc.edu vsunilar@ucsc.edu			v52F6R 822403

A tutor has also been hired for this class by Learning Support Services (LSS). Small group tutoring (SGT) is a service made available by the university at no cost to you.

Role	Name	Contact
LSS tutor	Dylan Reinders	dreinder@ucsc.edu

1.4 Sections

Section	Day & time	Facilitator	Zoom link	Passcode
A	Tue 11:40am–12:45pm	Jake	Jake's classroom (Section A)	3f012p
B	Wed 10:40am–11:45am	Jake	Jake's classroom (Section B)	6n624e
C	Wed 4:00pm–5:05pm	Vishal	Vishal's classroom	9s161x

PLEASE SEE SECTION RECORDING AND ATTENDANCE POLICY HERE

2 Instructor and TA information

2.1 Jake (he/him/his)

I am a sixth year Ph.D. candidate in the Linguistics Department, and the instructor for this class this quarter. You can call me Jake. My research falls in the realm of both syntax and psycholinguistics, but most of my projects also involve semantics in some way. I'm passionate about teaching and hope to make this quarter a fun and educational experience, despite the challenges we face right now. The choice to make lecture asynchronous means I won't get as much live interaction with you, so please feel welcome to drop in for my office hours, whether it's to introduce yourself or ask a question!

2.2 Vishal (he/him/his)

I am a second year Ph.D. student in the Linguistics department. I am interested in psycholinguistics and its interface with syntax and semantics. I am currently working on a project examining the processing of pronouns in Telugu, a Dravidian language spoken in India (and one I speak natively!). I am excited to be TAing Semantics for Jake and am excited to work with and assist you all this quarter. I want to echo Jake and encourage you all to come to our office hours just to say hello, ask a question, or anything in between.

3 Learning outcomes

By the end of the course, you are expected to be able to:

- Explain why two sentences have a given relationship with each other (entailment, equivalence, opposition, contradiction)
- Determine whether inferences drawn from a sentence are entailed (part of that sentence's literal meaning), conversationally implicated (cooperatively computed from contextual information), or neither.
- Determine whether part of a sentence's meaning is at-issue or not-at-issue (presupposed)
- Construct syntax trees for sentences in an artificial logical language (L_0) and for sentences of English (as L_{0F})
- Use explicitly defined rules of interpretation to determine the truth conditions of a sentence of the artificial logical language L_0 and for a fragment of English (L_{0E}) from the meaning of the sentences' parts and how they are syntactically combined
- Determine the truth value for a given sentence of L_0/L_{0E} with respect to a defined model

4 Prerequisites/Corequisites

This course has no prerequisites or corequisites.

5 Required materials, textbooks, and technology

To complete this course, you need access to a web-connected device that can play video and access Canvas. There is no textbook for the class, but we will read short excerpts of both Petzold (2000) and Fernández & Cairns (2011) at the beginning of the class, and parts of Chapter 2 in Dowty et al. (1981) around the middle of the quarter. These can be found on the Modules (Home) page or in Files > Reading. Supplemental readings will be shared, but these will not be mandatory.

5.1 References

- Dowty, David R., Robert E. Wall, and Stanley Peters. 1981. "The Syntax and Semantics of Two Simple Languages." In *Introduction to Montague Semantics*, 11:14–55. Studies in Linguistics and Philosophy. Dordrecht: D. Reidel Publishing Company.
- 2. Fernández, Eva M., and Helen Smith Cairns. 2011. "Beginning Concepts." In *Fundamentals of Psycholinguistics*, 3:1–24. Fundamentals of Linguistics. West Sussex: Wiley-Blackwell.
- 3. Petzold, Charles. 2000. "Best Friends." In *Code*, 3–8. Redmond, Washington: Microsoft Press.

6 Communication

We want you to feel very welcome to consult with Jake and the TAs at any juncture. If you get into difficulty or feel confused, it is entirely appropriate to seek help. We hope you won't hesitate to do so.

Please join us in office hours, which are provided with the course information here. We like meeting you one-on-one and are always happy to talk about any issues raised by course material, even if it's just to satisfy your curiosity.

We can guarantee you that students who come to office hours feel more a part of the course, learn more, and improve their course performance. Feel free to come by without a specific question and just introduce yourself.

Jake and the TAs can all be reached by Canvas messaging or email, whichever is more convenient for you. We are generally available and will respond to messages as soon as we can, but messages received after 5pm (Pacific Time) may not receive a reply until the following day. We have scheduled office hours (see below), but if you would like to meet with somebody and cannot attend one of the scheduled office hours, we are happy to try to schedule a separate meeting with you. For such cases, please contact Jake or a TA with a list of at least three times that would work for you.

7 Assignments and assessment

7.1 Assignments

There will be eight homework assignments for this course, and they will be assigned roughly every week. They will be officially assigned once all lecture videos the assignment depends on have been released. Points-wise and work-wise, Assignment 1 and Assignment 2 amount to a single assignment.

- 1. Assignment 1 (25 pts)
 - Kinds of ambiguity
- 2. Assignment 2 (25 pts)
 - Relationships between sentences (opposites, entailment, equivalence)
 - · Describing truth conditions informally
- 3. Assignment 3 (50 pts)
 - Implicatures
 - Presuppositions
- 4. Assignment 4 (50 pts)
 - · Lexical semantics of verbs
- 5. Assignment 5 (50 pts)
 - Syntax of L₀
- 6. Assignment 6 (50 pts)
 - Semantics of L₀
 - · Counting possible ways of assigning meaning
 - Deriving truth conditions for sentences of L₀
 - Determining truth values for sentences of L₀ with respect to a model
- 7. Assignment 7 (50 pts)
 - Syntax of L_{0F}
- 8. Assignment 8 (50 pts)
 - Semantics of L_{OF}
 - Meanings as functions
 - Deriving truth conditions for sentences of L_{OF}
 - Determining truth values for sentences of L_{OE} with respect to a model

7.2 Assessment

Your final grade will be calculated from the following components.

- 1. Attendance and participation in section (10%). Attendance at each meeting of the section you are enrolled in is mandatory (i.e. it is part of your final grade). If you are unable to attend your designated section, you may attend another, but you should request permission from the facilitator of the section you would like to attend. NOTE: If you have to miss a section, it is your responsibility to either find out from a classmate what happened at the meeting you missed or attend one of the other sections. NOTE: We will excuse one absence for any reason (but you must be in contact with us). Any following absences may be excused on a case-by-case basis with communication from you.
- 2. **Assignments (75%)**. All eight homework assignments are mandatory, and successful completion of these assignments will depend on actively viewing the lecture videos, practicing the material outside of assignments, and attending discussion section.
- 3. **Discussions on Canvas (10%)**. Roughly each week, a new question will be posted as a graded discussion. These are intended to be practice for the upcoming assignment. For each graded discussion, you are expected to contribute **both a contribution and two peer reviews**.
- 4. Experiment participation (5%). As part of your course credit, you are required to receive two credits for participating in linguistics experiments, which typically means participating in two experiments, the first of which must be completed by the end of Week 5. If you see one available, you may participate in a two-credit experiment to complete your experiment participation requirement for this class. To participate in experiments, you will need to sign up for an account on the Linguistics Sona Systems page.
- Extra credit (1.5%). For extra credit, you may participate in a third linguistics experiment. To participate in experiments, you will need to sign up for an account on the Linguistics Sona Systems page.

8 Attendance and section recording policy

As noted above, attendance in section is mandatory (it is part of your final grade). However, due to the trying and unpredictable circumstances brought about by the pandemic, I understand that you may not always be able to attend section synchronously. In order to accommodate the needs of students who must **occasionally** miss section, we will be recording all section meetings and providing access to these recordings on Canvas on the page titled Section repository, which you can access in Pages (in the navigation bar on the left of the main Canvas page). If you need to regularly miss section, please contact Jake.

The attendance component of your grade will no longer be calculated solely on the Zoom attendance report, but this will be used to assign attendance credit on the first pass. If you were unable to attend section, you are responsible for finding and viewing the recording of section (on the aforementioned Section repository page). Once you view the recording, to receive attendance credit you must contact me (Jake) and let me know that you viewed one

of the recordings. I will assign you attendance credit as soon as I confirm that you viewed the video. We also strongly encourage you to attend one of our office hours if you have questions after watching the section recording.

To prevent abuse of this system, I will be monitoring the combined weekly attendance rate in section Zoom meetings. If the attendance rate drops below 65% of the total enrollment, I reserve the right to modify this policy and may no longer provide access to the recordings from section.

9 Grading policy

Extensions on homework assignments are granted on a case-by-case basis (but anyone can request an extension). If you need an extension, contact me (Jake) before the assignment is due.

You can expect assignments that are turned in on time to be returned to you with comments approximately one week after the due date.

10 Instructor and TA feedback

We will provide direct comments and feedback on your assignments. Please click here to learn how to access our comments in Canvas. For more major assignments, we will include a grading rubric that will be available to you prior to submitting your work. Please click here to learn how to access grading rubrics for assignments.

11 Student feedback

At one or two points during the quarter, we will provide an anonymous survey to collect any feedback you might have.

At the end of the quarter, you will be asked to complete a Student Experience of Teaching survey for this course. SETs provide an opportunity for you to give valuable feedback on your learning that is honest and constructive. This anonymous feedback will help us consider modifications to the course that will help future students learn more effectively.

12 Course schedule

We'll roughly follow the schedule below. This schedule should not be considered the last word on the plan for the class. If there is any ever conflict between the estimated schedule here and due dates that you see on Canvas, you should always trust the due date associated with the assignment/material on Canvas. If you have any questions about scheduling or think there might be an error with a due date, please send a message to Jake or notify your TA.

Holidays this quarter:

- Monday, 01/18 (Martin Luther King, Jr. Day)
- Monday, 02/15 (Presidents' Day)

Module names:

- 1. Introduction to linguistics, language, and semantics
- 2. Relationships between words and sentences
- 3. The layers of meaning
- 4. The lexical semantics of verbs
- 5. The syntax of the artificial language L_0
- 6. A semantics for the artificial language L₀
- 7. The syntax of a fragment of English (L_{0E})
- 8. A semantics for a fragment of English (L_{0E})
- 9. Additional topics

Week	Dates (Su–Sa)	Module	Topics	Assigned
1	01/04-01/09	1	What language is & what linguistics studies; basic notions in semantics	Assignment 1
2	01/10-01/16	2	Synonymy/equivalence; antonymy/opposites; hypernymy & hyponymy/entailment	Assignment 2
3	01/17-01/23	3	At-issue/not-at-issue; presupposition; implicature; pragmatics; Gricean maxims; flouting vs. violating a maxim	Assignment 3
4	01/24-01/30	3 & 4	(See previous line for Module 3 topics) + Situation types; semantic roles (verb-specific and generalized); syntactic roles; linking theory; argument structures & alternations; Dowty's proto-role theory	
5	01/31-02/06	4	(See previous line for Module 4 topics)	Assignment 4
6	02/07-02/13	5	Words of L_0 ; well-formedness rules; syntax trees for L_0 sentences; recursion; syncategorematicity	-
7	02/14-02/20	6	Set theory basics; models & model counting; lexical semantics for L ₀	Assignment 5
8	02/21-02/27	6 & 7	Lexical semantics for L_0 ; compositional semantics for L_0 ; phrase structure grammar & phrase structure rules	Assignment 6
9	02/28-03/06	7 & 8	Phrase structure grammar & phrase structure rules; lexical semantics for L _{0F}	Assignment 7
10 Finals	03/07-03/13 03/15-03/19	8 (No instruction)	Lexical semantics for L_{0E} ; compositional semantics for L_{0E}	Assignment 8

13 Final exam date and time

Assignment 8 will be used as the final exam for the course. Navigate to that assignment in Canvas to see its due date.

14 Academic integrity

Academic integrity is the cornerstone of a university education. Academic dishonesty diminishes the university as an institution and all members of the university community. It tarnishes the value of a UCSC degree. All members of the UCSC community benefit from an environment of trust, honesty, fairness, respect, and responsibility. You are expected to present your own work and acknowledge the work of others in order to preserve the integrity of scholarship. Students are encouraged to form study groups and to discuss the homework assignments within those groups. However, *each student must write up all assignments on their own*.

Academic integrity includes the following:

- Following exam and assignment rules
- Using only permitted materials during exams and assignments
- Incorporating proper citation of all sources of information
- Submitting your own original work

Academic misconduct includes, but is not limited to, the following:

- Copying or paraphrasing *any* portion of another student's work (you are allowed to use another classmate's *observations*, but if you do so, you must explicitly credit them in your assignment using a parenthetical citation or footnote!)
- Copying/purchasing any material from another student, or from another source, that is submitted for grading as your own
- Disclosing exam or assignment content during or after completion of the exam or assignment
- Accessing assignment materials without permission
- Plagiarism, including use of Internet material without proper citation
- Using cell phones or other electronics to obtain outside information about an exam or assignment without explicit permission from me (Jake)
- Submitting your own work in one class that was completed for another class (self-plagiarism) without prior permission from me (Jake)
- Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript. For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the Academic Misconduct page at the Division of Undergraduate Education.

Please note that no work which violates academic integrity can count in fulfillment of course requirements. In the event a student is found in violation of the UCSC Academic Integrity policy, they may face both academic sanctions imposed by the instructor of record and disciplinary sanctions imposed either by the provost of their college or the Academic Tribunal convened to hear the case. Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript.

15 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 submit your Accommodation Authorization Letter from the Disability Resource Center to your me (Jake) privately during office hours or by email, preferably within the first two weeks of the quarter. I would also like us to discuss ways we can ensure your full participation in the course. I encourage all students who may benefit from learning more about DRC services to contact the DRC by phone at 831-459-2089 or by email at drc@ucsc.edu.

16 Religious accommodation

UC Santa Cruz welcomes diversity of religious beliefs and practices, recognizing the contributions differing experiences and viewpoints can bring to the community. There may be times when an academic requirement conflicts with religious observances and practices. If that happens, students may request the reasonable accommodation for religious practices. I (Jake) will review the situation in an effort to provide a reasonable accommodation without penalty. You should first discuss the conflict and your requested accommodation with your instructor early in the term. You or your instructor may also seek assistance from the Dean of Students office.

17 Principles of community

The University of California, Santa Cruz expressly prohibits students from engaging in conduct constituting unlawful discrimination, harassment or bias (more here). As your instructor, I am committed to providing an atmosphere for learning that respects diversity and supports inclusivity. We need to work together to build this community of learning. I ask that all members of this class:

- be open to and interested in the views of others,
- · consider the possibility that your views may change over the course of the term,
- be aware that this course asks you to reconsider some "common sense" notions you may hold,
- honor the unique life experiences of your colleagues,
- appreciate the opportunity that we have to learn from each other,
- listen to each other's opinions and communicate in a respectful manner,
- keep confidential discussions that the community has of a personal (or professional) nature, and
- ground your comments in the material we are studying. Refer frequently to the material and make them the focus of your questions, comments, and arguments. This is the single most effective way to ensure respectful discussion and to create a space where we are all learning together.

18 Title IX/CARE advisory

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 also 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.

19 Student services

19.1 Counseling and Psychological Services

CAPS website

Many students at UCSC 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.

19.2 Student Success and Engagement Hub

Student Success and Engagement Hub website

The Division of Student Success provides campus-wide coordination and leadership for student success programs and activities across departments, divisions, the colleges, and administrative units.

19.3 Tutoring and Learning Support

LSS website

You have the opportunity for free additional tutoring to help you master the material for this course. This resource is available through Learning Support Services (LSS). The kind of tutoring being offered this quarter is Small Group Tutoring (SGT), and the tutor assigned to the course is Dylan Reinders, who you can reach at dreinder@ucsc.edu.

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.

19.4 Slug Support Program

Slug Support Program website

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.

19.5 Slug Help/Technology

ITS Support Center website

The ITS Support Center is your single point of contact for all issues, problems or questions related to technology services and computing at UC Santa Cruz. To get technological help, simply email help@ucsc.edu.

19.6 On-Campus Emergency Contacts

Emergency Services website

Slug Help/Emergency Services. For all other help and support, including the health center and emergency services, start here. Always dial 9-1-1 in the case of an emergency.

20 Non-sale of notes

It has come to our attention that students may mistakenly believe that UCSC partners with companies like Notehall, Chegg, CourseHero, etc. to provide notes for the class. Please be advised that the campus is not affiliated in any way with any of these companies or their affiliates. Please note that students may be disciplined for selling, preparing, or distributing course lecture notes for any commercial purpose, whether or not the student himself or herself took the notes. The unauthorized sale of lecture notes (and handouts, readers or other course materials) is a violation of campus policies (Student Judicial Handbook, sections 102.17 and 102.018). Judicial action for violating campus policies may include disciplinary probation, suspension, or dismissal, which may have serious effects on your academic careers. The sale of classroom notes is also a violation of state law (Cal. Educ. Code, section 66450) and may be associated with civil penalties of up to \$25,000 depending on the number of offenses. It may also constitute copyright infringement subject to legal action.

Please do not confuse Notehall, Chegg, CourseHero, or any other note-providing company with the note taker program affiliated with the campus' Disability Resource Center (DRC). The DRC hires note takers for eligible students with disabilities who need notes for a specific class. See the DRC website more information. These companies are in no way affiliated with the DRC.